

**Superfund 25th Anniversary
Site Profiles**

America's Safety Net in Crisis

Glossary

ATSDR - Agency for Toxic Substances & Disease Registry. A federal health agency which is required to conduct health investigations at some Superfund sites.

CAG - A Community Advisory Group is made up of representatives of diverse community interests. Its purpose is to provide a public forum for community members to present and discuss their needs and concerns related to the Superfund decision-making process.

CCL - Construction Completion List EPA has developed a construction completion list to simplify its system of categorizing sites and to better communicate the successful completion of cleanup activities.

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as Superfund, was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment.

CWA - Clean Water Act incorporates those substances listed as hazardous water pollutants under section 311 (b)(4) of the Clean Water Act (CWA) as CERCLA hazardous substances.

DOD - The Department of Defense service branches which includes the Army, Navy, and Air Force, are each responsible for environmental restoration of sites under their control.

EPA - Environmental Protection Agency was established as an independent agency on December 2, 1970 during President Nixon's term in office. The mission of the EPA is to protect human health and to safeguard the natural environment, air, water, and land, upon which life depends.

ER - The Emergency Response program coordinates and implements a wide range of activities to ensure that adequate and timely response measures are taken in communities affected by hazardous substances and oil releases where state and local first responder capabilities have been exceeded or where additional support is needed.

HRS - Hazard Ranking System is the principal mechanism EPA uses to place waste sites on the NPL. It is a numerically based screening system that uses information from initial, limited investigations (the preliminary assessment and the site inspection) to assess the relative potential of sites to pose a threat to human health or the environment.

NPL - The National Priorities List is a list of sites that have contaminated groundwater and have an approved Hazard Ranking Score. These are eligible for superfund money. The NPL primarily serves as an information and management tool.

OSRTI - Office of Superfund Remediation and Technology Innovation manages the Superfund program, created to protect citizens from the dangers posed by abandoned or uncontrolled hazardous waste sites.

PA/SI - Preliminary Assessment / Site Inspection is used by EPA to evaluate the potential for a release of hazardous substances from a site.

PRP - Potentially Responsible Parties, under the Superfund law, are expected to conduct or pay for the cleanup. The Superfund enforcement program identifies the PRPs at the site; negotiates with PRPs to do the cleanup; and recovers from PRPs the costs spent by EPA at Superfund cleanups.

RI/FS - A Remedial Investigation/Feasibility Study is done when a site is listed on the NPL. The RI serves as the mechanism for collecting data, while the FS is the mechanism for the development, screening, and detailed evaluation of alternative remedial actions.

ROD - The Record of Decision is a public document that explains which cleanup alternatives will be used to clean up a Superfund site. The ROD for sites listed on the NPL is created from information generated during the RI/FS.

SARA - Superfund Amendments and Reauthorization Act amended the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) on October 17, 1986. SARA reflected EPA's experience in administering the complex Superfund program during its first six years and made several important changes and additions to the program.

TAG - Technical Assistance Grant provides money for activities that help communities participate in decision-making at eligible Superfund sites. An initial grant of up to \$50,000 is available for any Superfund site that is on the National Priorities List (NPL) or proposed for listing on the NPL and where a response action has begun.

Superfund Label Narrowly Avoided: What Happens When the Polluter Decides to Cleanup

Looking at a description of the former Monsanto plant in Anniston, known as “one of the most polluted patches of America,” according to the *Washington Post*, one would think for sure it was a Superfund site. But as EPA began scoring the site, the polluters decided they would clean it up. EPA permitted this, but required the company to closely follow a signed consent decree. Today, community members are watching closely as the cleanup is being performed.

The pharmaceutical company Monsanto/Pfizer produced PCBs for over 40 years in Anniston. Although they acknowledged the dangers back in 1935, their only response was a company memo stating that PCBs “cannot be considered nontoxic.” Waste water from the plant got into the groundwater and began causing fish kills in a local creek. A scientist Monsanto hired in 1966 to study the water called it “extremely toxic” and said it “would probably kill fish when diluted 1,000 times or so.” A

engineer later concluded that even basic industry practices of that time were not being followed—there were no catch basins, settling ponds, or carbon filters to clean the wastewater. And the unaware public kept fishing in the local streams.

In 2000, Monsanto merged with Pharmacia and Upjohn, keeping the name Pharmacia (later changed to Solutia). In 2002, EPA and the Justice Department signed a consent decree with Solutia that forced them to conduct a Superfund evaluation and in exchange, the EPA would not add the site to the Superfund list.

EPA later filed another decree to “add Anniston to the Superfund program without branding it a Superfund community,” and required Solutia to “investigate its own contamination... and suggest the cleanup strategy to the EPA.”

Many in the town preferred that the site not be labeled Superfund, said Shirley Baker of Community Against Pollution (CAP). “They didn’t necessarily want it to be listed, because there are

benefits and detriments to being on the NPL,” she said. “There is a negative stigmatism that if your town is listed, industries will not locate there,” she said. “It dramatically decreased our property values.” This is a key reason officials didn’t want the Superfund classification.

Although the community missed out on some benefits, the ATSDR did do an initial evaluation of PCBs in the soil, air and blood. However, when they come into communities “they never get enough information to make an accurate assessment,” said Baker.

People have perceived that there are higher than normal rates of cancer, diabetes, learning disability, behavioral problems, and a high rate of early maturation problems in the community. “There is this whole gamut of

health problems that are attributed to PCBs,” Baker said, “but we didn’t, and still don’t have, the statistical data to prove it.”

The community is concerned about whether Monsanto will continue the cleanup. EPA is negotiating a new administrative order with 11 companies responsible for lead contamination, and it’s not clear how, or if, this new order will impact the Monsanto agreement, which required them, in part, to provide funding for an education foundation and TAG grant. If Monsanto is granted a suspension of their obligations, and the EPA comes in, these extras will likely disappear. Baker said she feels like EPA has been using the community as a “token” in their negotiations.

The community did win a small battle when they got some aspects of the original consent decree changed. “We didn’t get all we wanted, but we got some of the things changed,” said Baker. Now they wait to see if that consent decree will hold. “It’s a struggle from day to day,” she said. “You just have to be observant and persistent.”



“It’s a struggle from day to day. You just have to be observant and persistent especially for our children.” - Shirley Baker

ALASKA

**Fort Richardson
Anchorage, Alaska**

Group Reaches Settlement On Superfund Site

Since 1997, Pam Miller and Alaska Community Action on Toxics (ACAT) have been working toward the implementation of Federal Superfund programs at the Fort Richardson Superfund site. As a result of their continued efforts and the power of Superfund, they are beginning to have a great deal of success.

Fort Richardson was constructed in 1940, and it occupies a 56,000-acre area immediately north of Anchorage. During World War II, the Fort's mission was to defend Alaska against foreign invaders. Today, its mission is to command Army forces in Alaska and provide services and infrastructure to support forces from Alaska to the Pacific theater. However, from 1940 to 1988, the Army participated in open burns and open detonations of munitions throughout Fort Richardson. This created high levels of pollution primarily in an area known as Eagle River Flats.

Eagle River Flats is located in a delta in the northwestern corner of the military base. It has served as the primary ordnance impact area for Fort Richardson since World War II. The ordnance testing area encompasses 2,500 acres of wetlands, which are an important habitat for waterfowl such as ducks, geese, and swans during spring and fall migrations. Sediment and surface water samples collected from Eagle River Flats in 1989 and in 1991 revealed elevated levels of heavy metals, explosive compounds, and white phosphorous. These samples would act as a catalyst for further testing conducted by the Army.

In 1993, chemical warfare agents were unearthed by the Army during excavation of solvent-contaminated soils at the site. This led the EPA to immediately designate Fort Richardson as an NPL site. In December 1994, EPA listed 46 contaminated areas on the base that pose a potential threat to the environment and human health. According to Miller, after the excavation, the chemical warfare agents were stored in a bunker on the Army base that did not meet federal standards for hazardous material storage under the Resource Conservation and Recovery Act.

In 1998, a cleanup plan was proposed that divided the site into 5 work areas or "operational units." As part of this plan, the Army proposed to use an experimental technology to "treat" the chemical warfare materials, claiming that the treatment would neutralize the chemicals. But ACAT challenged this premise arguing that the Army's plan was too limited in scope and relied on an unproven technology that "would generate toxic chemicals



"ACAT challenged this premise arguing that the Army's plan was too limited in scope and relied on an unproven technology that would generate toxic chemicals that are equal to or more toxic than the chemical warfare agents themselves." - Pam Miller

that are equal to or more toxic than the chemical warfare agents themselves." ACAT filed written comments stating that the proposed cleanup plan failed to "address the larger problems of continuing toxic pollution from the more than 10,000 unexploded bombs and other munitions at Eagle River Flats."

When the Army ignored their comments, ACAT felt they needed to take a different route to get the Army to address their concerns. In April 2002, ACAT, along with several other organizations sued the U.S. Department of Defense over its bombing activities at Eagle River Flats claiming that they "harm water quality and pose a toxic and safety hazard to local Indigenous subsistence users and nearby residents." According to their press release, "Despite the presence of 10,000 pieces of unexploded ordnance (UXO) in Eagle Flats, the Army refused to address the dangers posed by the presence of UXO. The Army's discharges of munitions into the Eagle River Flats released chemicals such as RDX, 2,4-DNT, heavy metals and other high explosive and propellant compounds."

After two years of negotiations, a settlement agreement was reached that provided significant protections to water, fish, wildlife, and human health including restrictions on munitions firings near migratory birds and provisions to keep the community involved in the cleanup process. As a result of these efforts, it now appears that the cleanup of Fort Richardson and Eagle River Flats is finally on track.

**Pam Miller * Alaska Community Action on Toxics
Anchorage, AK**

Problems Downplayed While Surrounding Residents Continue to Suffer

In the easily flooded area of South Phoenix, old landfills can be a source of trouble when the rains come. But residents are worried about more than floating trash. They've fought against methane, leaking barrels, and contaminated groundwater. The 19th Avenue Landfill, covering over 200 acres in Phoenix accepted municipal, industrial, and medical waste from 1957 to 1979. Some of this waste, from companies like Honeywell, Motorola, and Intel included heavy metals, solvents, pesticides, and sludge material. Although the site was added to the NPL in 1981, residents are still fighting its pollution today.

The landfill is located in the 100-year floodplain of the Salt River, so heavy rains have led to scattered trash and serious leachate movement. In 1979, a severe flood raised the water level and filled several pits in the landfill and carried landfilled garbage into the river. The flooding also helped generate excess amounts of methane gas in the landfill that posed a potential explosion hazard for the adjoining community.

In 1989 the EPA and state agreed to install wells to monitor the groundwater, added a landfill gas collection system and flare, covered the landfill, and installed a berm along the river to prevent erosion. The city was also required to monitor the methane at the landfill boundary and to prevent the gas from migrating off-site. These measures were installed and operational by 1996. The cleanup was considered complete in 1997 with a final construction cost of \$22.5 million

"The barrels are still down there. They contained them on site, but they are leaking. They are just tin barrels, which rust and rot."

- Pam Swift

Local activists such as Pam Swift and Teri Johnson, however, deny that the site is cleaned up. "They got all this money to do a cleanup, and all they did was plant flowers, trees, and put a recycling site there to teach kids about recycling," said Swift. They point to the methane gas pipes as an example. With no scrubbers to filter the gases, the methane is just moving from the landfill into the air. When EPA claimed to have "contained the waste," they simply mean capping off all the barrels buried underground, Swift said. "The barrels are still down there," she said. "They contained them on-site, but they are leaking. They are just in barrels, which rust and rot."

The leachate in these barrels included volatile organic compounds such as ethyl benzene, toluene and xylene, heavy metals such as arsenic and mercury, and beta radiation. At first the consultant for the city tried to tell the public that the leachate was only rainwater, but the group quickly found evidence in the city's own reports that contradicted this.

Even with the competent and hard work that Swift, Johnson, and others have done, victories haven't come easily. Swift spoke of the difficulties of working to ensure actions get done. "We can only put so much time in. We have lives!" Swift and Johnson both felt that the state does as little as possible concerning public hearings, cleanups, etc. "They say 'We're not required to do that,'" said Johnson.

Some of the health problems caused by the landfill include reports of asthma, cancers, and several accounts of miscarriages and birth problems. Those near the landfill also have to put up with foul smells.

The community did prevent the creation of a Disneyland-type park that the City wanted to build on the Salt River. They were going to have a bar, docks, a hotel, and allow boating, Swift said. That would just be crossing the line, she said. For now, Swift, Johnson, and other citizens concerned for their health and the health of the area will have to keep fighting what seems, at times, like a hopeless battle.

ARKANSAS

**Vertac, Inc.
Jacksonville, Arkansas**

Massive Contamination At Vertac Plant Compounded by Incineration of Dioxin Wastes

Immense contamination at the Vertac Superfund site in Jacksonville was compounded by the decision to incinerate large amounts of dioxin wastes as part of the cleanup. For years, community and environmental groups fought for a safe cleanup and opposed burning the dangerous dioxin waste.

Reasor Hill Company produced 2,4,5-T at the site starting in 1948. In 1961, Hercules purchased the plant and produced one quarter of the Agent Orange used in Vietnam. Transvaal then leased the plant in the 1970s and produced 2,4-D, silvex and 2,4,5-T. In 1976, Vertac took over operations until 1986 when they declared bankruptcy, leaving large amounts of contamination over the 90-acre site.

The site was severely contaminated by dioxins, chlorinated benzenes, chlorinated phenols, over 28,000 drums of herbicide production wastes, approximately 1,000 tons of highly contaminated shredded trash and 1,120 tons of tetrachlorobenzene contaminated soils, as well as other liquid waste. The fractured underground aquifer was threatened and the soil around homes immediately adjacent to the site were heavily polluted by the facility. Fish in Rocky Branch Creek and Bayou Meto contained dioxin above federal alert levels. A fishing ban in Bayou Meto was instituted that was only recently lifted.

The site was added to Superfund in 1983. In 1986, the PRPs began removal actions, but EPA had to take the lead when Vertac filed for bankruptcy later that year. Due to the severe pollution, EPA split the site into four operable units: pollution off-site; above ground buildings and incineration of some waste; contaminated soils and landfills; and groundwater. A complex remedial plan was implemented in the late 1980s and 1990s. Dioxin contaminated soil in the adjacent residential area, creeks and sewer lines were excavated and dumped in an on-site landfill, known locally as "Mt. Vertac."

Dioxin was present in both the 2,4,5 T ("T") waste and 2,4,D ("D") waste, though the T waste levels were substantially higher. The company began burning the lower dioxin contaminated

D waste along with other waste on-site despite strong opposition from local, state and national groups, such as Greenpeace and the local People Against Chemically Contaminated Environment.



"No community should be abandoned to toxic hell for lack of available cleanup resources." - Sharon Golgan

An injunction filed by attorneys representing these activists stopped the burning several times, and a lengthy fight ensued resulting in burning the dioxin contaminated T waste at an off-site incinerator. Groundwater treatment began in 1997. Two TAGs were given to a community coalition to hire independent experts, after EPA annulled an earlier grant to a group with a conflict of interest. EPA declared all remediation activities complete in 1998.

EPA waged a long and difficult legal battle to recover cleanup costs from the polluters, especially Vertac, Hercules and Uniroyal (now Crompton). Litigation began in 1980 and for twenty-five years the polluters fought cleanup orders, filing numerous appeals. Finally in 2005, a final judgment was upheld against Hercules and Uniroyal for approximately \$110 million each. As

part of its 1986 bankruptcy agreement, Vertac put \$10 million in a trust fund that paid for a portion of the waste incineration.

"Big companies who pollute the soil, water, and air should be held accountable through the one method they pay attention to – the bottom line. Polluters must pay for their environmental crimes and clean up their messes," said Gregory Ferguson, an attorney who represented the local community.

Without Superfund, this toxic tragedy would have threatened the 30,000 people in Jacksonville for years as the polluters refused to take action, or went bankrupt. EPA would have had to spend millions of dollars outside of Superfund to address the public health hazards posed by this site.

"Even though Superfund has faults, the overriding saving grace has been the 'polluters pay' provision that gave us a desperately needed source of cleanup funds. No community should be abandoned to toxic hell for lack of available cleanup resources," said Sharon Golgan, a local community activist.

**Sharon Golgan,
Austin, AR**

**Gregory Ferguson
Little Rock, AR**

California Playground Turns Out to Be Acid Pits

In the late 1970s, a heavy rain hit the Glen Avon community. The streets, homes and nearby elementary school flooded. The kids, excited by the heavy rain, played in the puddles, making beards with the foam. It wasn't until after the kids were done playing with the "rainwater," after it was too late for parents to protect their children that the truth came out. The rainwater included more than one million gallons of liquid hazardous waste the state had released from the Stringfellow hazardous waste site in an effort to relieve pressure against a main storage dam.

Stringfellow was created in 1956 as a Class I hazardous waste site permitted to accept the most dangerous chemical waste produced by industry. Until 1972, more than 32 million gallons of liquid hazardous waste were dumped in open pits in a canyon elevated above the community. More than 250 major corporations dumped there, including GE, Lockheed Corporation and the U.S. Air Force. "It was thought to be the ideal place with a solid granite base in a box canyon and, most importantly, near a small rural community with little political clout," said Penny Newman, executive director of Center for Community Action and Environmental Justice. "Who would notice or even care?"

Over the years, the site leaked into the groundwater creating a toxic plume of chemicals, including heavy metals, pesticides such as DDT, and large amounts of sulfuric, nitric, and hydrochloric acids. Recently, another contaminant, perchlorate (a component in rocket fuel), had reached more than six miles to the Santa Ana River. The abundance of acid wastes prompted the site's nickname, "The Acid Pits."

Another problem was air exposures. To reduce the amount of liquids, the owners set up a sprinkler system that sprayed liquid into the air to increase evaporation — which blew into the community below. During dry times, the chemical-laden air would blow in the winds throughout the area. The worst time of year, though was the rainy season, Newman said. Traumatic events like the release of hazardous waste described above prompted the community to form Concerned Neighbors in Action.

"We had a full epidemiological study done in cooperation between ATSDR and the state," Newman explained. However, "studies don't address health concerns they simply study them." The major findings of the study revealed high incidences of all cancer. Birth defects in children were elevated in the exposed group and 19 diseases had statistically significant elevations. In recent years, thyroid problems and cancer have developed, Newman stated.



Penny Newman at the Stringfellow site, which became one of the first sites added to the National Priority List.

In September, 1983, Stringfellow became one of the first sites added to the NPL. "Superfund program provided the framework for communities to address the contamination within their areas," Newman said.

Cleanup is being addressed in five stages: initial actions and four long-term phases that include installation of a pre-treatment plant, control of the source of contamination, cleanup of the lower canyon, and cleanup of community wells. So far, removal of liquid waste, connection of affected residences to alternate water, and installation of a groundwater capture and treatment system have been implemented, according to EPA.

Concerned Neighbors was able to get a technical advisor before Superfund provided one. Their success was used as a model for the TAG program. The community continues to have a technical advisor, but the responsible parties pay for it. "The main limitations have been that provisions were never fully implemented," Newman said. "Although the law allowed EPA to go in and conduct the cleanup and then bill polluters for three times the cost, it was never used. The lack of funds in Superfund due to the (industry) tax not being reauthorized has created a program that's totally impotent. It's disingenuous to pretend a program exists without the funding to address the problems that are still out there. Sites that should be on the NPL are not, simply because the agency doesn't want to expand the list."

COLORADO

**Summitville Mine
Rio Grande County, CO**

Colorado Superfund Site Progresses After Millions Spent

Since Colorado's Summitville Mine was added to the NPL in 1994, more than \$200 million has been spent on cleanup – but it's still not enough. Although Galactic Resources is primarily responsible for the pollution, and has settled with state and federal agencies, the total settlements don't begin to approach the amount of money spent on the site. Furthermore, money spent on cleanup tapered off when Superfund funds decreased.

"The mine sites are the first to get bounced off the cleanup list when the funds run out," said Jeffrey Parsons, Senior Attorney for Western Mining Action Project. "Eliminating polluter pay taxes has directly affected the chosen remedy for the site. It still poses a major environmental public health threat."

The 1,230-acre site located in the San Juan Mountains of Rio Grande County was mined extensively underground from the late 1870's until the late 1970's. In the 1980s, Summitville Consolidated Mining Company, Inc. started large-scale surface mining for gold, using the heap-leach process. This mining ceased in 1992, resulting in an abandoned gold mine that leaked cyanide, acid and metal-laden mine water into the Alamosa River. "These mines, there's literally nothing like them as far as the damage they cause," Parsons said.

The mining greatly increased the acidity and dissolved metals in the surrounding streams, killing aquatic life and threatening the irrigated farmland downstream. Dissolved metals included aluminum, copper, iron, manganese and zinc. Presently, the site includes a forty-acre cyanide heap-leach pad, a large acid producing exposed mining highwall, a capped pit area, waste rock dumps, a large storage pond for poor quality water, and a water treatment plant which operates April-October each year. "Summitville is one of the worst environmental disasters we've ever had in this state," said Ignacio Rodriguez, chairman of Summitville TAG.

The release of cyanide into the Alamosa River was the primary concern initially. Today, acid mine drainage from the underground mines and numerous seeps and springs emitting



"Despite Superfund's support and progress, agency/community interaction was at first difficult and frustrating with regards to technical decision-making."

- Ken Klco

low pH metal-laden water are the primary concerns. The river water is used to irrigate more than 17,000 acres of farmland in the San Luis Valley and to water livestock. The river has also been used for recreation, fishing and swimming for many generations.

"All of these uses can result in human exposure to metals and low pH water," said Ken Klco of Summitville TAG. "Limited human health risk studies have been performed to look at metals uptake in soils and agricultural products, including sheep raised on Alamosa River water and forage and local waterfowl. No significant human health risk has been identified to date."

With no human health impacts confirmed, no ATSDR study has been performed to date, he added. Instead concern has focused on the ecological

impacts to the Alamosa River and the Terrace Reservoir, a water storage facility located several miles downstream from the mine site.

Klco said Superfund helped to identify and address these pollution issues. The community also received a Technical Assistance Grant that supported in community-based input into technical decision-making regarding cleanup and maintenance of the site. The group hired four technical advisors from 1994 through 2001.

Around 585 acres have now been restored so as to support plant and wildlife habitats. The final remedy for the site, selected in September 2001, includes containment of contaminated water from the mine, construction of a new water-treatment plant, possible construction of a large containment reservoir, contaminated groundwater and surface water interceptor drains and site maintenance.

Despite Superfund's support and progress, Klco said, agency/community interaction was at first difficult and frustrating with regards to technical decision-making. "While these issues have improved, community involvement remains an issue that is talked about more than practiced by agency site management," he said. "The 2001 ROD for the site has not yet been implemented, due to low funding levels and relatively low priority versus sites with higher human health impact potentials."

**Ken Klco and Ignacio Rodriguez * Summitville TAG
Rio Grande County, CO**

Landfill Owner Shirks Responsibility as Site Climbs Superfund Charts

The Laurel Park landfill has many accomplishments under its belt. Located at the top of Hunter's Mountain, it was named the No. 1 Superfund site in the state of Connecticut. It was in the sixth most dangerous group out of the 11 groups that made up the list of 114 hazardous waste sites initially designated for cleanup under the Superfund program in 1981. On September 8, 1983, it became a final site. It hosted numerous chemical companies, petroleum products, and a wide array of toxic, industrial and household waste.

But the Murtha family, who opened the 20-acre landfill in 1947 to burn cardboard and paper products, didn't acknowledge their infamous site after it closed. The family didn't take responsibility for the pollution and degradation their landfill had been causing for years, and is still causing. Furthermore, the Murthas did not help with the much needed site cleanup. "The landfill owner, H. Murtha, made thousands, perhaps millions of dollars and paid very little for the cleanup," said Mary Lou Sharon, president of the Pollution Extermination Group, Inc (PEG).

In the early 1960s, a lawsuit was filed against the Murtha family, asking that there be no burning on site, no toxic chemicals stored in acid pits and coverage of existing chemical waste pits. However, the existing pits were never covered.

After the landfill permanently closed in 1989, the legal action continued. Responsibility for the site became an issue as EPA sued Uniroyal Chemical Co. and B.F. Goodrich for the cost of cleanup. The companies in turn sued 200 municipalities, businesses and individuals arguing about the percentages of responsibility. Litigation lasted for three years, ending with 19 potentially responsible parties agreeing to design and implement a final cleanup plan.

The \$20 million cleanup plan included fencing a portion of the site, installing a landfill cap, providing a new drinking water line for the residents, building a sewer, and installing a leachate collection and treatment system and groundwater extraction and treatment system. According to EPA, these measures prevented direct exposure to the contaminants, making it safer for the nearby residents and the environment.

"The PRPs didn't clean the site," said Sharon, who lives within the vicinity of the landfill. "They capped it because the chemicals would have been too hazardous to transport back off the site.

"The PRPs didn't clean the site," said Sharon, who lives within the vicinity of the landfill. "They capped it because the chemicals would have been too hazardous to transport back off the site." - Mary Lou Sharon

A leachate system was designed and the site was capped. Every bit of hazardous waste as well as all the contamination from the flood of 1955 is still on site or has traveled downhill into the surrounding neighborhood."

The contaminants located at the site range from PCBs and dioxins to hospital waste and asbestos. PEG petitioned the state to test for dioxins and challenged the state health department on procedures for testing water. However, the federal and state agencies didn't really take any action to address health concerns, Sharon said. "While I was surveying the neighbors, I found many women experienced miscarriages, and cancer in many of the families," she recalled. "Young women died early in life, (because) they used to play in the stream that was polluted. A woman was bathing in benzene-contaminated water and ended up with eye tumors. Farmers' chickens and ducks also died from the stream."

The brook, which these community members were playing in, was heavily polluted with high levels of toxic chemicals and landfill leachate, and the brook traveled downhill through a schoolyard. University of Connecticut students also did a health study, but it was lost by the University and never completed for publication, she added.

Although the health assessment studies have been mostly unsuccessful, PEG has had some of their concerns taken care of. The main objectives of the neighborhood organization were to close the landfill to reduce the migration off-site, and to secure the potable water for the residents in close proximity to the site. Both objectives were accomplished, along with the installation of monitoring wells on site.

DELAWARE

**STANDARD CHLORINE OF DELAWARE, INC. (AKA METACHEM)
DELAWARE CITY, DE**

Multiple Spills Lead to Water, Soil & Wetlands Contaminated with PCBs and Dioxin: Community Protests When Chemicals Shipped to Mexico

Chlorobenzenes were made at the Standard Chlorine of Delaware site from 1966 to 2002. The 65-acre site in New Castle County became a Superfund site in 1987 due to a 1981 chlorobenzene spill that occurred while workers were filling a railroad tanker car. A second spill occurred in 1986, when 569,000 gallons of volatile organic compounds (VOCs) spilled after a 375,000-gallon tank collapsed, and damaged three nearby tanks.

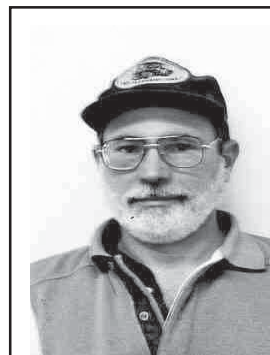
Alan Muller, Executive Director of Green Delaware, a statewide organization working on environmental and public health issues, discussed the tank's bursting. "There was a lake of toxic chemicals running into the ground. That's what finally got the government's attention," he said.

Chlorobenzenes have been found in the groundwater, soil, sediments, and surface water. The wetlands near the site are also contaminated with PCBs and dioxin. About 152,000 people draw groundwater from wells within three miles of the site. Only about 30 people lived within a mile of the site, which is "one of the ways they got away with not cleaning it up soon," says Muller.

The community was concerned about contamination in Red Lion Creek and the Delaware River, as well as air emissions. The most common health worries are cancer and birth defects. Muller said, "We would suspect that the exposure to all the kinds of chemicals would lead to cancer, but there aren't any studies that would confirm that to the satisfaction of the government."

Little cleanup activity occurred until 1995 when EPA required Standard Chlorine to install minimal measures to protect the groundwater, but they did nothing. Then in 1998, the company was bought by Metachem, who claimed to be different, but still did nothing. Then abruptly, in 2002, Metachem declared bankruptcy and walked away. "That was when they started to clean up." Although there had been complaints to the State, "the grumbling wasn't enough to enact change."

When asked whether federal agencies had addressed their health concerns, Muller replied, "We as a community would say that they have not." He said that ATSDR has been in twice, and they basically pronounced everything 'OK.' They did mention there



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- Alan Muller

could be danger on ball-fields next to the plant, but "they never acknowledged that there was a threat to the community."

Concerning the positive aspects of being involved with Superfund, Muller says, "There is a clean-up going on," but "there are a lot of problems with it." One of the main complaints is lack of interaction. "Community opinion has been ignored, and they just do what they want," Muller said. This seems especially noticeable in the emergency removal phase. "Their attitude is that if they listen to the community, it would take forever."

The community became even more outraged when they learned that much of the waste being removed was being shipped to communities in Mexico. Many felt that this was "beyond anything that should be tolerated." Community members never stopped considering to whose backyard the pollution was going. Muller sums up, "It is the kind of site that made things that should never be produced anyway. This is an example of why [it should not be made]. It's an inherently evil toxic."

A lack of funds is a clear limitation to the program, said Muller. He continued, "... the EPA will never admit that they don't have enough money. And they always want to do things as cheap as possible." Muller feels polluter pay fees should "absolutely" be reinstated because it is the key principle guiding Superfund.

**Alan Muller * Delaware Greens
Delaware City, DE**

Community Pushes EPA To Detoxify "Mount Dioxin"

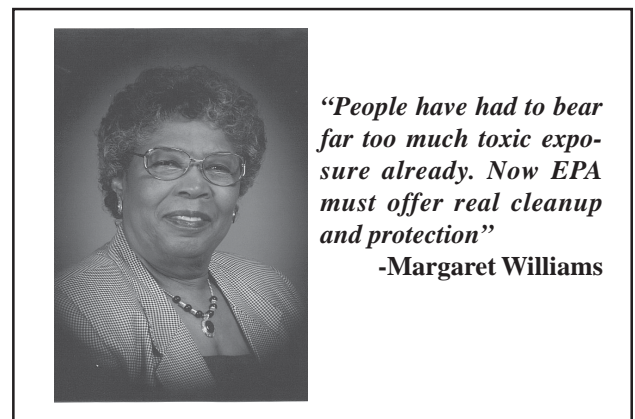
The Escambia Treating Company Superfund Site, also known as "Mt. Dioxin," is a former wood treating facility at the geographic center of greater Pensacola. It sits 60 feet above downtown, but just 48 feet of sandy soil above the unprotected groundwater, which serves as the sole source aquifer for hundreds of thousands of residents, and also discharges into Pensacola Bay System.

Escambia Treating Company (ETC) operated from 1942 to 1982, using creosote and pentachlorophenol (PCP) to treat wood. The resulting residues are highly toxic and persistent in the environment and the human body. They not only saturate the 26 acres of the site, but they have spread throughout nearby residential, school, and commercial areas on both sides of a major thoroughfare. They have also leached down through the soil and spread in a large groundwater plume that reaches a mile and a half to Bayou Texar.

Ceasing operations in 1982, the plant was abandoned in great disarray. Sampling investigations by EPA that began in the early 1980s and are still ongoing through 2005 have detected dioxin, PCP, polycyclic aromatic hydrocarbons (PAHs), arsenic, and other contaminants at high levels in the surface soil, subsurface soil, and sludge, offsite as well as onsite. The groundwater plume contains elevated concentrations of naphthalene, benzene, PAHs, phenol, and vinyl chloride.

Instead of placing the site on the NPL to be a "real" Superfund site, EPA initially chose to handle it under the "emergency removal" program. EPA began excavating the contaminated soil and sludge without determining the magnitude of the problem. Separated from residential yards by nothing more than a broken chain-link fence, the excavation created a straight 40-foot drop from the yards bordering the site. From October 1991 through November of 1992, workers in "moonsuits" dredged up toxic soil less than 15 feet from children playing in their own yards.

Residents of the neighborhoods near ETC first began meeting in March, 1992, in a desperate but unsuccessful attempt to stop the digging. Within months, it became apparent that the community was facing complex and long-term questions regarding health protection and toxic cleanup. Citizens Against Toxic Exposure (CATE) was formed to represent community interests and they pushed for the NPL listing in 1994. As



CATE discovered the extent and toxicity of offsite contamination, the group's demand became permanent relocation for the 358 mostly African American families in the neighborhoods closest to the site. The campaign was joined by CHEJ and other activists across the U.S. and on October 3, 1996, exactly five years after EPA began the excavation of contaminated soil at the ETC site, EPA agreed to CATE's demand for permanent relocation of all 358 families. CATE has recently learned that high levels of ETC contaminants are present in another residential neighborhood and has just won relocation of some fifty additional families.

On August 17, 2005, EPA released a proposed plan for burying and "capping" the surface soils on the site. With the addition of offsite contamination, the volume of wastes now totals nearly 600,000 cubic yards, more than double the original Mt. Dioxin. CATE is working to see the site detoxified, not merely covered up.

"The community suffers high rates of cancer, numerous chronic disorders and birth defects linked to chemical exposure," said Francine Ishmael, President of CATE. Ishmael recalls that for years residents unknowingly used contaminated well water for drinking as well as irrigation of their gardens and fruit trees, and ate produce tainted by airborne contaminants as well. "People have had to bear far too much toxic exposure already," Ishmael declares. "Now EPA must offer real cleanup and protection."

GEORGIA

**Brunswick Wood Preserving
Brunswick, GA**

Government Agency Plays Hide & Seek With Toxic Information

One of four Superfund sites in Brunswick, Brunswick Wood Preserving (BWP) is not receiving the attention it deserves. Instead of highlighting the horrendous pollution problems, EPA has done everything in its power to hide the community plight from full exposure. “EPA secrecy surrounds this site the last few years,” said Daniel Parshley, project manager for Glynn Environmental Coalition (GEC). “The EPA has withheld draft documents that should be reviewed by our technical advisor. EPA staff have gone to residents’ homes and intimidated the most vocal residents.”

Opened in 1958, BWP treated wood with copper chromium arsenate (CCA), pentachlorophenol (PCP) and creosote. The creosote, released in the early 1970s, left a four-inch coating on Burnett Creek. “We united, organized residents, and sought legal action in the early 1970’s to stop the repeated killing of the fish and crabs in the creek,” said Paul Redding another member of GEC. “Regulators promised action, but allowed BWP to continue releases.” CCA- and PCP-treated poles were dried over open ground, allowing the chemicals to contaminate the soil.

This pollution was the responsibility of Escambia Wood Preserving, “a company that sold the business to the workers when it knew the operation wasn’t sustainable and environmental regulators were pressing for action to stop continued releases,” said Parshley. The same environmental regulators allowed Escambia to create a four-acre pond of creosote, CCA and PCP.

In 1991, BWP closed after declaring bankruptcy, leaving in its wake an 84-acre site with 1 million cubic yards of waste, which still remains. EPA’s Emergency Response and Removal Branch began a removal action that lasted until April 1995, according to EPA.

During this removal action, all but a few of the site structures were demolished and removed: sludges were dewatered; wastewater was treated; drums and lab wastes were disposed offsite; poles, lumber, equipment and scrap were recycled and/or salvaged; and large areas of contaminated soil and sludge were excavated and removed.

The site, which doesn’t include the surrounding residential properties with groundwater contamination underneath, was proposed to the NPL in 1996. Four months later, the site was finalized. However, the listing didn’t change the fact that



“Instead of highlighting the horrendous pollution problems, EPA has done everything in its power to hide the community plight from full exposure. EPA staff have gone to residents’ homes and intimidated the most vocal residents.” - Daniel Parshley

residents were told not to eat from their gardens; soil, air and seafood had been exposed to toxic chemicals; and clotheslines were coated with those chemicals. There are six municipal wells within a four-mile radius, serving more than 6,000 people.

Although there was an ATSDR Public Health Assessment, Parshley stated, EPA failed to provide data to make a determination. “Overall, the EPA has done a good job of not producing data relevant to protecting human health from consumption of contaminated seafood,” he said. “To this day, the drain pipe from the BWP site continues to release PCP and diesel fuel to Burnett Creek.”

The Glynn Environmental Coalition received a TAG to review site documents and reports. Unfortunately, BWP is still not being cleaned up. Parshley believes this is partly due to the fact EPA has refused to provide information about how the site is priority-ranked for funding. “The BWP site is an orphan site that must be remediated with Superfund money,” he emphasized.

**Daniel Parshley * Glynn Environmental Coalition
Brunswick, GA**

Plantation Workers Endangered After Company Spills Pesticide In Drinking Water

Thirty years after its business commenced, a pineapple operation turned deadly when Del Monte Corporation spilled 495 gallons of the pesticide ethylene dibromide within approximately 60 feet of a well that supplied drinking water to around 700 plantation workers living in Central O’ahu. Henry Curtis, Life of the Land executive director, said the hits in the perched aquifer were frightening. “The workers at Kunia Camp, mostly Filipino immigrants...were definitely exposed,” Curtis said.

According to EPA, the well was tested one week after the 1976 spill and no contamination was detected. In 1980, the Hawaii Department of Health (HDOH) began an investigation to determine whether the pineapple fumigants contaminated O’ahu’s drinking water, including the Kunia well. When the results of the investigation indicated contamination, the well was shut down. Del Monte pumped water from the well every day for more than a decade and used the water for dust control. They also removed the top six inches of soil (amounting to 18,000 tons of soil) from the spill area and spread it on fallow lands to hasten the evaporation process.

Concerns grew, said Curtis, because land in the area was being rezoned from agricultural to urban and new developments were being planned. An older development, Village Park, was a concern because the community reported that one in ten children in that subdivision had a learning disability, and on one street, three children had open-heart surgery before the age of five.

When Village Park was developed, the Environmental Impact Statement said the land was filled and graded. The community worried that the fill had come from the Del Monte site. At one meeting, EPA presented maps showing where the soil removed from the spill site was placed. “We gasped because a developer had just received a permit to build a 1,000 home subdivision called Royal Kunia on the very site where EPA said the

contaminated soil was moved,” Curtis recalled. “When the community raised the issue of a new subdivision going into that area, (EPA) produced another map, outlining another location, telling us that we all misunderstood what they said. Could 30 people at the same meeting get it wrong ... and get it wrong in exactly the same way?”

Curtis said EPA appeared anxious to close out the investigation before it even started. The HDOH reinforced EPA’s actions by assuring the citizens of Village Park that they had suffered no effects from the spill or from the contaminated soil and water. “The Honolulu Board of Water Supply was the only agency that actually worked collaboratively with the community,” Curtis stressed. “They tested beyond their usual limits and provided the community with raw data on the constituents in their water before and after it went through the filtration system.”



“To wait 18 years before designating an obvious contamination area as a Superfund site is just ridiculous. The cards seem so stacked against the community as federal and state agencies try to discourage the community from doing anything pro-active.” - Henry Curtis

It wasn’t until 18 years after the spill, in 1994, that Del Monte was designated a Superfund site. “It would have gone unreported and quietly into the night, as anything that could negatively affect tourism does,” Curtis said. “It forced the state to pay attention to the concerns of Village Park residents and find the money to do soil testing.”

However, “to wait 18 years before designating an obvious contamination area as a Superfund site is just ridiculous,” he said. “The cards seem so stacked against the community as federal and state agencies try to discourage the community from doing anything pro-active.” Life of the Land believes it will take more than just the reinstatement of polluter pays fees to rectify the problem. They want EPA to keep a “Bad Actor” list of companies that consistently violate pollution laws. The group thinks fines should increase with each additional violation. “Voluntary compliance is a myth and does not work,” Curtis emphasized. “The only thing polluters seem to understand is money, and if the cost is burdensome, it might be cheaper for them to comply.”

Community Wonders What it Will Actually Take to Clean up the Nation's Largest Superfund Site

For 18 years, the Silver Valley Community Resource Center (SVCRC) has been fighting to clean up the Bunker Hill Mine and Metallurgical Site. Although they've made some progress, the health of many residents in the area is still a major concern. Located in Shoshone County in Northern Idaho, approximately 40 miles east of Coeur d'Alene, this site is home to the most severe epidemic of childhood lead poisoning associated with industrial pollution ever recorded in the United States.

Beginning in 1917, the Bunker Hill area developed into a huge industrial complex focused on mining, smelting and refining metals. It is estimated that millions of tons of mill tailings, mine waste rock, and ore concentrates were spread across the area by a wide array of mining and railroad companies. A fire in 1973 caused significant additional pollution. Following the fire, a health study found that people living in the area were suffering from lead poisoning and health problems associated with industrial pollution. In order to reduce pollution, the smelter increased the size of its emissions stacks. However, these stacks were extremely inefficient and eventually the Bunker Hill mining and smelting complex closed in 1981.

When the EPA designated Bunker Hill a Superfund site in 1983, it was a 21 square mile site, which at the time made it the second largest Superfund site in the country. However, when SVCRC obtained a Technical Assistance Grant (TAG) ten years later, their advisor found that the contamination was spreading. EPA was well aware of this but, they were afraid to expand the site because of political reasons. Barbara Miller of SVCRC illustrates this point by stating, "as a result of SVCRC finally getting a Technical Assistance Grant, the EPA extended the site to include 1,500 square miles."

Bunker Hill is now the largest Superfund site in the country; though this has not expedited the cleanup process according to Miller. She points out that Shoshone County has "consistently held the highest death rates for the State of Idaho during the last 20 years." She believes these statistics are directly related to environmental lead poisoning.

The lead poisoning associated with the site can be directly attributed to the inadequate funding of the Superfund cleanup process. This led Miller and SVCRC to take matters into their own hands. In 2003, SVCRC conducted a health study comprised of 252 households who live in the vicinity of Bunker Hill. This study brought startling results. Miller states, "the study showed



"The return of polluter pays fees is critical to finish the cleanup at the Bunker Hill site."

- Barbara Miller

that households responded resoundingly to the fact that they suffer from heart disease, high blood pressure, and learning disorders." Over 37% of those who participated said someone in their household has a chronic disease, and 33% reported miscarriages.

Although, much has been done to clean up the site, the massive degree of pollution at Bunker Hill requires a great deal more attention than the average Superfund site. According to Miller, the pollution at Bunker Hill is so bad that the EPA was forced to apply different standards to the site. She states, "300 ppm [parts per million] of lead is the threshold for soil removal by the EPA, but at Bunker Hill, the removal level was set at 1,000 ppm by EPA." Miller adds "that the majority of homes at the site have a reading of anywhere from 2,000 ppm to 52,000 ppm of lead."

The work of Barbara Miller and SVCRC has brought significant results. However, it is apparent that without Superfund funding cleanup of the entire site is unlikely. The return of polluter pays fees is critical to finish the cleanup at the Bunker Hill site. Miller points out "without it, this cleanup at Bunker Hill will be stopped, and the same will happen for other communities. There will be no hope at all, and future generations will continue to be exposed and live with toxic poisoning."

Illinois Mother Raises Her Voice Over Government Negligence

Victoria Freese is a housewife living near Wauconda who demands to be heard over the racket of polluters and government indifference. Freese believes she should be heard when it comes to how much contamination should be allowed in the area's drinking water. She believes residents should have a voice when it comes to how far a landfill is situated from the homes where their children live. Unfortunately, said Freese, her voice and the voices of many community members around her have not been heard. Consequently, several hundred homes in the area are possibly contaminated with vinyl chloride.

"What's criminal here is EPA doesn't allow residents to participate in the negotiation process. The residents don't have anyone negotiating on their behalf," she said. "We need to have water, we can't live without water. You don't need a house, you don't need a car, but you do need clean water and air to live."

Clean water is something the people of the Wauconda area have been trying to get for years. When the site was closed in 1987, it was discovered that leachate from the site had migrated into nearby groundwater wells and into adjacent Mutton Creek. According to EPA, a leachate collection system was installed as was a clay cap to reduce leachate generation. A fence was also erected around the site.

The community is working diligently to try and get an alternate source of water. The PRPs have proposed a water supply plan that includes a four-inch water main to serve about 200 homes, which Freese said is not adequate and will not have the capacity to add future connections when contamination spreads further.

"EPA should not have approved the four-inch water main. The PRPs should have paid for an adequately sized pipe to begin with," she stressed. "A government grant is going to cover the

cost to increase the main from a four-inch line to an eight-inch line. EPA has the ability to pressure the PRPs to do the right thing, but they didn't do that in this case."

Instead of doing the right thing, the PRPs are trying to blame the residents as a contamination source. Too many shortcuts were taken, Freese added, with not enough thought given to how contamination can move undetected for miles. The site, which was listed on the NPL in 1983, covers 60-acres. This includes six acres of licensed and 43 acres of unlicensed landfill areas. However, Freese said the contamination has spread and will likely continue to spread, even though EPA refuses to admit it.

"In the 1980s, EPA told residents that bacteria would eat the contaminants before it would get to their wells,"

she said. "EPA also told residents not to worry, if contamination were to move, it would take 99 years before it would make it to their wells."

"While researching and collecting information, there were many times that I wanted to walk away from all this, but every time I wanted to throw the information, I would hear of someone else who was ill with some strange disease or cancer: liver, kidney – and other things you really didn't hear a lot about," she said. To date, no one has done a study to try to find a link. ATSDR did a general study for this site, but it contradicts itself, she said.

"We need money for a toxicology analysis to find out if there is a link between the contamination and these illnesses," Freese said. "This money should be coming from the polluters, instead of our government subsidizing some of the largest corporations in the world," Freese said. "Our tax dollars have been granted to a water system the polluters are responsible for," she said. "It's just unbelievable."

"A government grant is going to cover the cost to increase the main from a four-inch line to an eight-inch line. EPA has the ability to pressure the PRPs to do the right thing, but they didn't do that in this case."

-Victoria Freese

INDIANA

Lemon Lane Landfill Bloomington, Indiana

Superfund is a Step in the Right Direction In Cleanup Efforts at PCB Sites

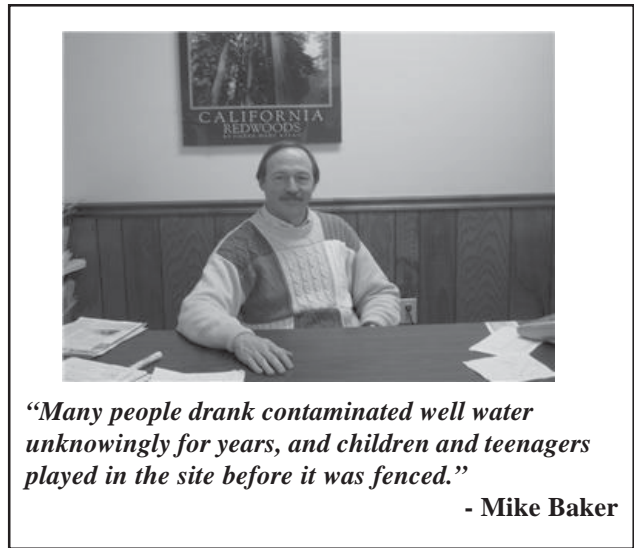
PCBs, or polychlorinated biphenyls, are synonymous with the city of Bloomington. EPA identified six sites in or near the city contaminated with PCB's, three of which are on the Superfund NPL. An estimated 2 million pounds of PCBs were disposed of in area dumps. One of these sites is the Lemon Lane Landfill, located on the western edge of the city. Area residents have been active for over 25 years pushing continuously for cleanup of the Lemon Lane landfill and many PCBs sites in and around the city.

The Lemon Lane Landfill is ten acres in size, approximately seven acres of which are owned by the city and three acres by a private citizen. According to EPA, from 1933 until 1964, the landfill, which had no bottom liner or runoff controls, accepted municipal and industrial wastes. From about 1958 until 1964, a large number of electrical capacitors containing PCBs were dumped at the site. It was during this period that Westinghouse Electric Corporation (now Viacom/CBS) manufactured electrical capacitors containing PCBs in Bloomington.

In 1983, after massive amounts of PCBs were discovered in Bloomington's sewer system, the landfill was added to Superfund, and the city and EPA began preparing a lawsuit against Westinghouse. However, behind the scenes meetings were held, and, in 1985, an agreement between Westinghouse, the City of Bloomington, Monroe County, the EPA and the state of Indiana was announced.

According to Mike Baker of the Coalition Opposed to PCB Ash in Monroe County (COPA), the consent decree "gave Westinghouse the right to build a hazardous waste incinerator, burn the PCB contaminated soil, and when finished, haul the hazardous ash to a landfill in Bloomington." The unpopular consent decree acted as the catalyst for the formation of several community-based organizations including COPA in 1990. With pressure applied by these groups, the incinerator plan was scrapped in 1994 and the parties to the Consent Decree agreed to look for alternatives.

There were many reports of health problems including cancers and birth defects, especially among people in the neighborhood adjacent to the landfill. "Many people drank contaminated well water unknowingly for years, and children and teenagers played in the site before it was fenced," commented Baker.



In response to these reports, health studies were done by the state and by ATSDR, but these studies found no adverse effects associated with the sites.

Superfund made it possible for COPA to get a Technical Assistance Grant that was used to hire independent experts to review EPA's and Westinghouse's work. COPA shared this information with the community through public presentations and their web site.

COPA recognizes the role Superfund played in cleaning up the worst areas of contamination. "Most of the high level PCBs (over 50 ppm) have been removed from Lemon Lane, while the remainder which is below the bedrock has been consolidated and covered on site," noted Baker. This was a direct result of Superfund money. But still, "much more needs to be done," says Baker.

Baker feels a weakness in Superfund is that "lack of funding and budget cuts have limited the progress at sites and significantly drawn out the time it has taken to get a remedy." He believes reinstating the polluter pays principle is the best way to clean up sites such as Lemon Lane, noting, "Superfund is the only way to clean up the most hazardous of sites."

Dreams Can Come True: Superfund Cleanup was a “Wonderful Experience”

The Nahant Marsh, a 513-acre wetland, is located inside the city of Davenport, and is one of the last remaining urban wetlands of great size on the Upper Mississippi River. The Scott County Sportsmen’s Association acquired about 115 acres of this area in 1969 and operated it for approximately 20 years as a trap and skeet shooting range. In 1995, the U.S. Fish and Wildlife Service (USFWS) found hazardous levels of lead shot on 13 acres. The EPA confirmed concentrations of over 500 lead pellets per square foot in the top six inches of soil. An estimated several hundred tons of lead shot were deposited into the soil and sediment during the operation of the range. In 1997, waterfowl were diagnosed with lead poisoning by the USFWS.

Listed as an NPL site in 1996, the EPA entered negotiations with the City of Davenport, and the Sportsmen’s Association in 1998. A cleanup plan was proposed in December 1998 that included excavating and removing lead contaminated soil and sediment. The soil was treated and disposed and the cleanup was completed in 1999. The property was then designated for habitat and educational purposes.

Then the City, along with River Action, a non-profit group working on riverside issues, began fundraising to renovate the clubhouse once used by the Sportsmen’s Association and turn it into an education facility. Kathy Wine of River Action described the ecological effects of the lead shot in the marsh before the cleanup. “We’re talking about over 20 years of accumulated lead shot,” she said. “We first noticed that the waterfowl were dying, because they were feeding off the bottom.” This also was a human health concern as they were worried about drinking water and wells near the marsh.

The community is trying to buy all the acres of the wetland to use for conservation. “We want to prevent industry from encroaching,” she said. They have since bought up 150 acres, but would like to add another 150 to that. “One of our limitations now is land owners willing to sell,” she said. River Action and the community are quite proud of the education center.



“It was a wonderful experience. We had this cleanup, and the EPA managed everything from beginning to end. It was all under budget, and now we’ve got a much improved wetland.” - Kathy Wine

Before it was created, people weren’t really aware of the marsh. “River Action brings people to the river and wetlands through projects, education programs and workshops,” she said. “And that’s when you build awareness.” Now there are wetland studies taking place, college students doing research, home school programs, and activities for students K-12.

The education center hopes, “through education and research opportunities, to develop a sense of stewardship among residents to help prevent further degradation of the area, restore existing habitat, educate a voting public about environmental issues, and improve an underserved area of West Davenport and benefit from its natural resources.” (www.mvs.usace.army.mil/pm/riversweb/nahant.htm).

Wine had nothing but good things to say about the Superfund process. “It was a wonderful experience. We had this cleanup and EPA managed everything from beginning to end. It was all under budget, and now we’ve got a much improved wetland.”

KANSAS

Neodesha Refinery Neodesha, Kansas

Neodesha: A Town in Need of Superfund

For several years, Lucille Campbell fought to draw attention to the pollution and health concerns related to the Neodesha Refinery. Campbell's organization, the Neodesha Environmental Awareness Team (NEAT), has employed multiple strategies to raise awareness about the site; but the refinery has yet to be added to the NPL, and it remains a major threat to the community's well being.

Neodesha is a small town in southeastern Kansas, with approximately 2,800 residents. The town has a long association with the oil industry, as evidenced by the fact that it is home to the first commercial oil well west of the Mississippi River. This history is illustrated by a 40-foot replica of the original well tower at the end of Main Street. These roots, which bring immense pride to many residents, also appear to be causing tremendous health problems.

The refinery, which operated from 1897 to 1970, was first owned by Standard Oil, then sold to Amoco, and is now owned by British Petroleum (BP). Operations at the facility included crude distillation, catalytic cracking, platinum reforming, and steam generation.

Following the closing of the refinery, many illnesses were reported throughout Neodesha. This led to investigations that found groundwater contamination, including a plume of benzene, toluene, ethylbenzene and xylene (BTEX) from the site into Neodesha. The plume affected residential areas, schools, churches, and business and industrial park areas.

In 1980, a Consent Agreement was signed between Amoco and the state, which says, according to Campbell, that the cleanup would be done "under the auspices of the EPA, Region VII." But, Campbell notes that neither EPA nor Superfund ever had a presence at the site.

Superfund has been inapplicable in Neodesha in large part because elected officials and many residents believe that declaring the refinery a Superfund site would create an irreversible "black eye." This concern was expressed during a City Commission meeting in 2002 where requests to push for the site's addition to the NPL were strongly discouraged. At this meeting, Kurt Limesand of the Kansas Department of Health & Environment, stated that, "The state has tried to keep the federal government out of such situations because we feel our program is less cumbersome and more effective." He added, "We have a good



"It is alarming how many people have or have died of cancer. Despite being a pretty little town in the country, Neodesha's death rate stays in the top four in the state."

- Lucille Campbell

working relationship with the EPA and they would really prefer we do the work because we can get the same results more quickly... if this were a Superfund site, the cleanup would last a long, long time."

These remarks illustrate the past attitude in Neodesha. Many residents have felt that the stigma of being designated a Superfund site would offset any benefits of Superfund resources. However, the work by Campbell and NEAT is making it increasingly apparent that the current approach is not doing enough to eliminate health concerns.

As a result of this shifting attitude, the town recently filed a lawsuit against BP in state District Court alleging that the refinery had poisoned the groundwater and soil and that its managers covered up the pollution to avoid liability. The suit seeks 1 billion dollars in damages and an expedited cleanup. Campbell does not believe a lawsuit is the best way to handle the problem. She states, "If they file a lawsuit, they can settle out of court, and the issue of the sick and dying would never be addressed."

Although slow progress is being made, the situation illustrates the importance of Federal Superfund. Campbell says, "It is alarming how many people have or have died of cancer. Despite being a pretty little town in the country, Neodesha's death rate stays in the top four in the state." She said as a result of the pollution, "water lines are eaten away in many sections and sewer lines have been damaged." It appears Neodesha is a town that could greatly benefit from Federal Superfund.

Marshall County Hunts the Toxic Dump

Marshall County learned early on that hunting was a survival skill. However, the county wasn't hunting for food, shelter or water - the three basic necessities that come to mind. The citizens of Marshall County were on the prowl for a new prey, which had been attacking their community for years. The attacks were unlike the fast kills of the usual wilderness beasts. They were slow and painful, producing the highest cancer mortality rate in Kentucky. Worst of all, these treacherous attacks were made by people. Marshall County had no choice but to go on the defensive and "hunt the toxic dump."

Unfortunately for the dump, it didn't camouflage well into the country background. Before long, 251 toxic waste sites were located and mapped. However, unlike their predecessor, B.F. Goodrich/Airco, these sites were not listed on Superfund.

Corinne Whitehead of the Coalition for Health Concern (CHC) has worked for years on getting the B.F. Goodrich/Airco site cleaned up. It consists of two separate and distinct landfills, one owned by B.F. Goodrich and the other by British Oxygen Corporation (formerly Airco). Because they are adjacent and possibly overlap, Whitehead explained, they are considered a single site, though their history differs.

The 2.75-acre Airco site is an industrial landfill where Airco Chemicals & Plastics disposed of their wastes from chemicals manufactured at its Calvert City plant from 1956 to 1971. An estimated 18,000 tons of caustics, acids and other contaminants were dumped in the landfill. In 1971, Airco leased the site to Air Products & Chemicals who dumped 14,000 tons of metal-contaminated coal ash as well as other pollutants over 9 years. The landfill was capped and closed in 1981.

B.F. Goodrich leased the 2.0-acre adjacent site in 1962 and dumped 54,000 tons of construction waste and plant trash, and 370 cubic yards of salt-brine sludge. They also burned over two million gallons of liquid chlorinated organics in several burn pits, according to EPA. From 1962 until 1969, when a permit was granted, the B.F. Goodrich operation was unpermitted and unregulated. This facility shut down in 1973. B.F. Goodrich and Airco were listed as Federal Superfund sites in September 1983 and September 1984, respectively.

Both sites are adjacent to the Tennessee River, adversely affecting its water quality and aquifers, Whitehead said. Due to this contamination, cancer is very prevalent, she emphasized. There's also a high incidence of neurological damage, miscarriages and large numbers of handicapped children born in the community.



"ATSDR did a worthless study...[and] refused to consider the cancer incidence."

- Corinne Whitehead, CHC Board Meeting

"ATSDR did a worthless study," she said. "ATSDR refused to consider the cancer incidence." CHC lobbied the Governor for years to do a cancer study. Finally, in 1994, Governor Brereton Jones authorized the study, which found that two types of cancer, including brain tumors, were possibly caused by chemicals at B.F. Goodrich.

Site remediation was conducted in 1996 with the remedy based on a 1988 Record of Decision. Whitehead's group was unable to get a Technical Assistance Grant beforehand. Construction activities consisted of upgrading the vegetative cap over the landfills, construction of a dike along the river to protect from seasonal flooding, excavation of contaminated surface soils and drainage ditch sediments, and installation of a leachate extraction system. In 1997, construction was completed and groundwater monitoring began.

The site was thoroughly tested and the landfills covered and isolated from encroachment, Whitehead said. However, "over the CHC's public objections, EPA and Kentucky chose the pump and treat method of remediation for the middle and deep aquifers that are highly contaminated," she said.

Whitehead believes the Superfund process is entirely too slow. Because they thought the pump and treat method wasn't workable, CHC initiated the "hunt the toxic dump" action. The 251 sites found boasted contaminants similar and identical to the toxics in the B.F. Goodrich/Airco site. To this day, not one of the 251 dumpsites has been remediated.

LOUISIANA

**Petro Processors, Inc.
Baton Rouge, LA**

Residents Warned Too Late Not To Eat From Devil's Swamp

Florence Robinson was warned not to eat anything that came from Devil's Swamp. Along with other area residents, she avoided the swamp, which houses more than nine square miles of contamination. Unfortunately, the warning came too late for some residents who swam there because it was not fenced, said Robinson, a member of the North Baton Rouge Environmental Association. Numerous health concerns related to the site followed these exposures as well as workers who came into contact with chemical wastes during the initial cleanup.

Devils Swamp first began to live up to its name in 1964 after chemical wastes from at least 10 major petrochemical plants were dumped in a "borrow pit" between Baton Rouge Bayou and U.S. Highway 61. The plants included Exxon, Dow, Uniroyal, U.S. Steel, Copolymer and Ethyl Corp. In 1980, the site was capped, but two years later it became a Superfund site.

Petro Processors is actually made up of two sites, totaling 77 acres. The first and smaller site consists of unlined pits used to bury "designer" chemical wastes such as hexachlorobenzene and hexachlorobutadiene. By 1993, the wastes had migrated from the site and across a four-lane highway. Erosion along the bayou coupled with overflow of the site during heavy rains resulted in contamination of the bayou, which carried that contamination into Devil's Swamp.

The second site consists of waste dumped in unlined pits, including a pond where the fish and trees were killed. The site has been flooded by the Mississippi River several times, carrying waste over the swamp. Also, a dam broke on the site, resulting in a major spill that killed over 100 cattle on an adjacent farm. The contamination has seeped deep into the ground, contaminating the groundwater. "The depth of the contamination was never determined," Robinson said. "This site contained the highest concentrations of chlorinated hydrocarbons ever found out of the test tube."

Hunters and fishermen who had direct contact with contaminated sediments and ate fish, game, fruits and vegetables from the swamp were also exposed. Residents were also exposed by inhaling the contaminated air.

"Residents have complained of high cancer rates, high blood pressure that disappeared when people moved to other areas, severe nose bleeds, asthma, other breathing difficulties, sudden, unexplained deaths, serious sinus and other allergic problems,"



"The Federal Superfund has not helped our community in our struggle. They have agreed to a 'sham' cleanup, and have even tried to coerce us into celebrating the completion of construction."

- Florence Robinson

Robinson said. "The community also has a lot of serious kidney disease, neurological problems, and there have been some horrific birth defects."

ATSDR completed a health assessment which confirmed several exposure pathways leading to unsafe exposures. However, they denied any health risks or problems. Robinson and her group applied for a TAG for Devil's Swamp, but she said bureaucratic demands made getting that grant a near impossibility.

"The Federal Superfund has not helped our community in our struggle," Robinson stressed. "They have agreed to a 'sham' cleanup, and have even tried to coerce us into celebrating the completion of construction. They refused to recognize off-site contamination from Petro Processors, Inc. A lake in the swamp, Devil's Swamp Lake, has been proposed for Superfund status, but because Exxon protested, EPA refuses to list it."

Robinson also believes the pump and treat remedy chosen for the site was inefficient and resulted in further exposures. A shift in politics, she said, along with reintroduction of polluter pays taxes could result in a stronger remedy. "Local politics has too strong an influence on the process," she said. "We wanted to petition to get Devil's Swamp Lake on the NPL years ago when the Superfund Law was still in effect, but we knew that our governor, who was very pro-industry, would not approve it. Rather than hit a dead-end, we just bided our time until the political winds changed a bit."

3 Million Gallons of Chemical Waste Landfilled; Groundwater Treatment System Shutdown After Only 10 Years

The Winthrop Landfill is a 20-acre site located next to Lake Annabessacook, which includes the town landfill and the privately owned Savage Landfill. The site was used in the 1920s as a sand and gravel pit. In the 1930s, part of the site became a town dump accepting industrial, commercial and municipal waste. Between the 1950s and 1970s, an estimated three million gallons of chemical wastes were dumped at the site, including solvents, resins, plasticizers and other process chemicals. In 1979, the town tried to expand the landfill and found numerous leaking barrels.

The town then closed the landfill and opened a transfer station on the site. However, the Savage Landfill contracted to accept municipal waste from Winthrop and two neighboring towns. Wastes were openly burned until 1972 and landfilling occurred until 1982. Within a half mile of the landfill, there are 63 residences (year-round and seasonal). Wetlands are near the site.

In 1980, VOCs, including tetrahydrofuran, were detected in a well south of the landfill. Contamination was found in groundwater beneath the site and in lake sediments south of the landfill. The site was proposed for the NPL in 1981 and added to Superfund in 1983.

Drinking water wells were polluted when the aquifer below the landfills became contaminated. Water was supplied to residents until municipal water could be extended to homes. People were also exposed when walking on the site which was used as a shortcut from the road to homes below the dump. Children and teenagers occasionally played and scavenged in the site area.

A clay cover was built over the landfill and a fence erected. Deed restrictions were imposed prohibiting groundwater use, any excavation in the landfill area, and use of the landfill for activities other than cleanup actions. There were several

responsible parties, including the Town of Winthrop, Everett and Grace Savage, and Inmont Corporation (subsidiary of United Technologies Corp.). In 1994, the PRPs installed a soil vapor extraction system to remove contamination from the landfill waste

and prevent further migration of polluted leachate. A year later, they began a pump and treat system to contain and treat both ground and surface water. Then in 2002, EPA proposed a "conceptual rebound evaluation," shut down the cleanup activities, and declared that water levels and groundwater chemistry would be studied over two years. Within a few months, EPA and the State approved the plan and shut down the pump and treat system.

Priscilla Jenkins moved to the area in 2000, and is "especially glad that

we have town water." She thinks her dormant well water and the lake should be tested after this year's (2005) spring flooding and strong hydro geological pressures. "I need to be reassured that the bedrock contaminants were not stirred up to the point of triggering more problems - especially since they stopped testing the 'test wells' last year. And, I now have grandchildren starting to visit regularly."

Jenkins said the only health investigation conducted was a survey - the results of which are unknown. She noted that, "Although no formal connection to toxic exposures was studied, six people died of cancer or kidney problems and one child has Downs Syndrome." Jenkins feels the "cleanup procedure took too long to start - from 1980 to 1985 - although it went quickly once started." Superfund polluter pays fees should "absolutely" be reinstated, she said. She and other residents' main concern now is whether an adequate cleanup was done. "For instance, one woman who lost her husband will still not go in the lake," she said. "Several people want more testing and information sharing, since the pumping operation was discontinued. Some of us believe there also needs to be more lake sediment testing."

"I need to be reassured that strong hydro geological pressures did not stir up landfill bedrock contaminants to the point of triggering more problems—especially since they stopped testing the wells. And I now have grandchildren starting to visit regularly."

- Priscilla Jenkins

MARYLAND

**Kane & Lombard Street Drums
Baltimore, Maryland**

20 Years After Partial Cleanup Tainted Groundwater Coexists with Miniature Golf Course

The Kane & Lombard Street Drums site was part of an open dump between 1962 and 1984 where industrial, demolition and municipal waste was dumped. It lies along an industrial and commercial strip and is adjacent to a high school and public recreation area. “We became involved because EPA had discovered over 1,162 drums containing aromatic compounds, hydrocarbons, phthalates, PCBs, cyanide and metals,” said Mary Rosso, of Maryland Waste Coalition, an environmental watchdog group from 1980 to 2002.

In 1984, EPA reported that they “responded quickly to prevent students of the adjacent high school and residents of nearby homes from coming into contact with hazardous materials.” They removed the drums, covered the site with topsoil, installed a fence and proposed it be added to the NPL.

Contaminated soil and groundwater polluted with VOCs still remained. In 1986, the site was added to Superfund. “Our group joined with Clean Water Action to protest the initial (partial) cleanup. We held a demonstration at the site, followed by a special march to Washington DC to meet with federal policymakers and demand money for Superfund cleanups.”

In 1990, EPA put in a barrier wall around the disposal area and a permanent cap to prevent further contaminant releases to groundwater and eliminate the potential for exposure to polluted soil. In 1993 four potentially responsible parties agreed to investigate the groundwater pollution caused by site releases and properties north of the site. Two years later, a group of PRPs signed an agreement to reimburse EPA and the state for \$6 million in cleanup costs, and to maintain the site cap and barrier.

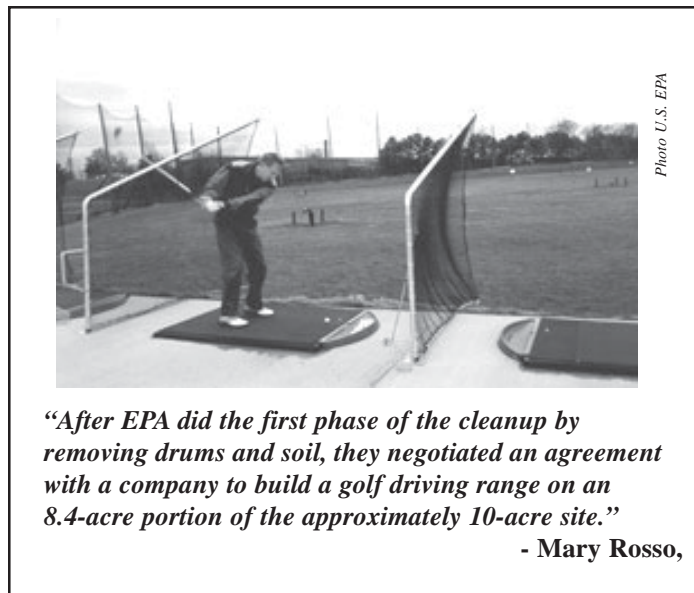
Health concerns were never addressed. Rosso noted that, “The area has always been noted for high cancer rates. I don’t believe they ever did special testing for people in the area for types of cancer that would be related to toxic exposures.” After nine years, the groundwater investigation was completed. EPA proposed a remedial action plan in 2003. The groundwater is not currently being used for drinking water, however it could

affect nearby industrial wells, and the aquifer could be used for drinking in the future. EPA selected treatment of the groundwater by injecting organic carbon, institutional controls to prevent exposure to remaining contaminated subsurface soil and groundwater, and a Soil Management Plan to establish health and safety requirements.

After EPA did the first phase of the cleanup by removing drums and soil, they negotiated an agreement with a company to build a golf driving range on an 8.4-acre portion of the approximately 10-acre site. The current owners, Bayview Golf Center,

added a miniature golf course in 2004.

Superfund was instrumental in getting some of the waste removed, and forcing the polluters to pay, but the remaining tainted soil and groundwater at the site is an outstanding concern. One of the lessons Rosso learned is that while Superfund is helpful there are “major gaps in helping communities near these NPL sites.” She said, “Testing and meetings take a long time; it goes on and on and takes years to finalize. Communities are really frustrated.”



“After EPA did the first phase of the cleanup by removing drums and soil, they negotiated an agreement with a company to build a golf driving range on an 8.4-acre portion of the approximately 10-acre site.”

- Mary Rosso,

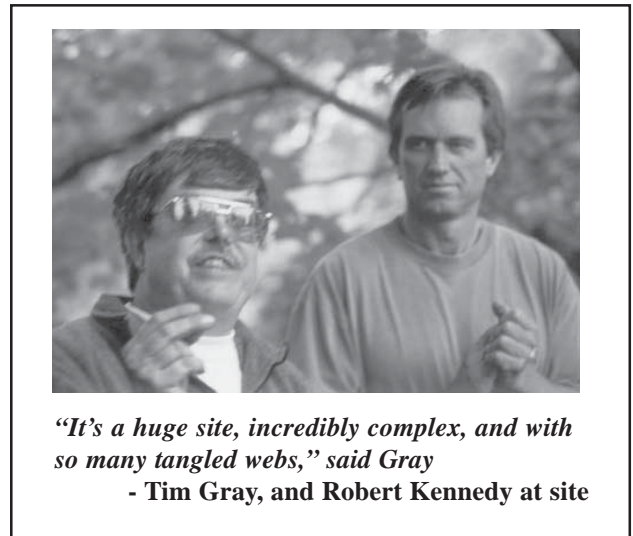
Superfund: To Be or Not to Be? Town Divided on the Classification of Site

No one denies that along the Housatonic River in Massachusetts, General Electric (GE) is responsible for an overwhelmingly large contamination of soils and water. Located in Pittsfield in Berkshire County, the site extends out from the GE plant, down the river, and into Connecticut. Yet when the site was assessed in 1997, the big business community in town preferred that it not be labeled a “Superfund” site. What followed was a series of negotiations between GE and EPA, such that GE is now conducting response actions for the spills. Depending on whom you ask, it *is* or *isn't* a Superfund site.

The site encompasses six waste source areas: 11 former river bends of the Housatonic that are filled with contaminated soil containing GE wastes, numerous spills at GE that resulted in contaminated plumes that were acres in size, 8 miles of PCB-contaminated floodplain soils, two landfills, and numerous areas of contamination in Pittsfield including near a school. As mentioned in the “ABCs of PCBs,” a report by the Housatonic River Initiative (HRI), “The GE facility is comprised of 250 acres with five million square feet of building space.” According to Tim Gray, Executive Director of HRI, GE dumped chemicals for about 30 or 40 years.

The site was nominated for Superfund in 1997, followed by the issuance of a CERCLA Section 106 Order by the EPA. A Grand Jury then convened against GE. “This put the muscle power together to bring GE to the negotiating table,” said Gray. They negotiated with the U.S. Justice Department and the EPA and a Consent Decree was issued in 2000, that is essentially in place of a “full tilt Superfund Nomination,” said Gray. The consent order laid out a series of clean-ups including a 2-mile stretch of the river, several business properties, the GE plant and over 175 homes. Although it is portrayed as not actually a Superfund site, it is in fact one of the biggest sites in the nation.

The health concerns raised by the community include cancer, immune disorders, skin rashes, thyroid dysfunctions, and learning disabilities. People were living in these contaminated yards, and families grew up there, emphasized Gray. Even though the health problems were severe, people didn't immediately place blame where it was due. “It was hard to make that link, as health problems were rarely linked to the site at first,” said Gray.



“It’s a huge site, incredibly complex, and with so many tangled webs,” said Gray
- Tim Gray, and Robert Kennedy at site

Health assessments conducted by the Massachusetts Department of Environmental Protection, and the EPA found nothing. “They pretty much have ignored neighborhood concerns. Both federal and state health authorities don't do their jobs,” said Gray. Eventually, advisories on the eating of fish caught in the river were issued. But to Gray and others, it didn't feel like much was accomplished.

HRI did get a TAG to work on the site that they used to hire experts to work on the side of the citizens in regards to science issues, as well as to help with newsletters and public forums for education about the site and clean up methods.

The Superfund program did help the Pittsfield community in that a partial clean up was performed. “In some ways it was a huge victory,” said Gray, as it brought in \$500-700 million for clean up. “But still,” said Gray, “it was only partial.” The limitations of the program were lack of funds, sluggish action, and recognition. “At this point in time they are only willing to do things like capping and landfilling, all of which are only temporary solutions that simply defer things to the future,” said Gray.

MICHIGAN

**Velsicol Chemical
St. Louis, Michigan**

Landfill in Need of Superfund Resources

The Lower Peninsula of Michigan is the backdrop to the remarkable Pine River watershed. However, this beautiful setting is now home to one of the most horrific forms of toxic abuse in our nation's history, the Velsicol Chemical Landfill. Since 1998, Ed Lorenz and the Pine River Superfund Citizen Task Force have fought diligently to clean up the Velsicol Chemical Co. Landfill. Although the site remains on the NPL, Lorenz believes that the Task Force will eventually be able to use their resources to bring about the region's transformation from "a symbol of environmental abuse to one of good environmental stewardship."

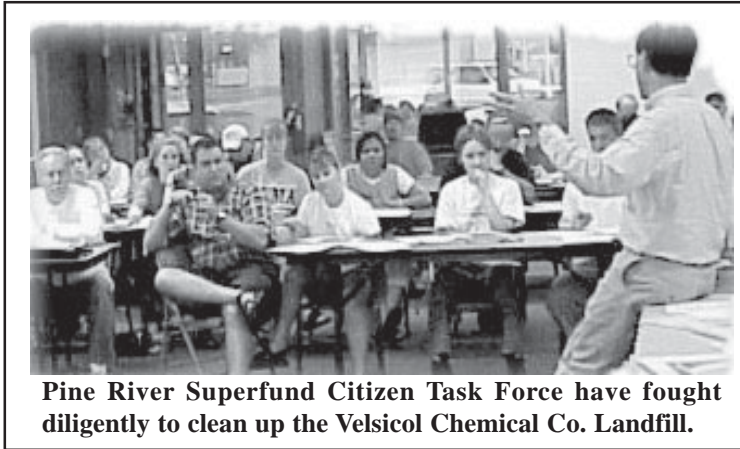
Unfortunately, transformation will not be easy. The Velsicol Chemical Co. polluted the Pine River on such a massive scale, that there has been a complete fishing ban on the river since 1974. This fish advisory remains in force today because of the huge quantities of DDT, polybrominated biphenyls (PBBs), and other harmful toxins contaminating the fish and the river sediments.

The Velsicol site is a 54-acre landfill located in Gratiot County. From 1936 until 1978, Velsicol (formerly Michigan Chemical Corp.) dumped various chemical compounds and products into the landfill. The company produced three types of hazardous wastes in significant quantity. These products include DDT, radioactive waste, and a fire retardant, known as PBB.

The tremendous levels of hazardous waste produced by the Velsicol Chemical Company led EPA to place the Velsicol Chemical site on the NPL in 1982. Although Velsicol paid for the first cleanup of the site in 1982, they were not forced to comply with further cleanups. In 1985, a containment system was built around the site, which consisted of a slurry wall around the 54 acres and a clay cap on the entire site. In 1998 the EPA began an emergency removal action of the Pine River, after dramatically increasing levels of DDT in fish tissue signaled the failure of the containment system.

Today, toxic waste continues to seep from the wall and into the Pine River, bringing pesticides, fire retardants, and other industrial contaminants into the river sediments, creating an extremely hazardous situation.

Ed Lorenz and the Task Force are fighting back. The Task Force is in the early stages of an infant exposure study, which uses infant blood to detect exposures to toxins. Lorenz points out "health data indicates we have high thyroid admissions at the local hospital, and a cancer cluster has been located near the radioactive waste dump." Furthermore, Lorenz states that the rate for non-Hodgkin's lymphoma is 12 times higher than should be expected. The Task Force has also determined that people exposed to PBBs from the site have "significantly higher rates of digestive system cancers and breast cancers."



Pine River Superfund Citizen Task Force have fought diligently to clean up the Velsicol Chemical Co. Landfill.

Although major health concerns still exist, the Pine River Task Force has received two TAGs. These grants have allowed the Task Force to effectively lobby the EPA to clean up this massive Superfund site. Unfortunately, the tremendous extent of the pollution has made cleanup much more extensive than first expected. This has caused delays and ultimately exposed many citizens of Michigan over the years.

As a result of Superfund's bankruptcy, taxpayers will now pay for the second cleanup to start in 2006, because the 1982 cleanup was not sufficient. Lorenz believes the best solution to Superfund's bankruptcy may be "a special sales tax on certain hard to dispose items." He believes this would be significant, because it would make the user of contaminants "aware that certain products are hazardous." Whether Lorenz's vision will work remains to be seen. However, it is apparent that the Velsicol Chemical Company Superfund site still poses a major threat to the surrounding community's vigor, environment and ultimately their health and well being.

Community Questions When Their Area Will Ever Be Really Cleaned

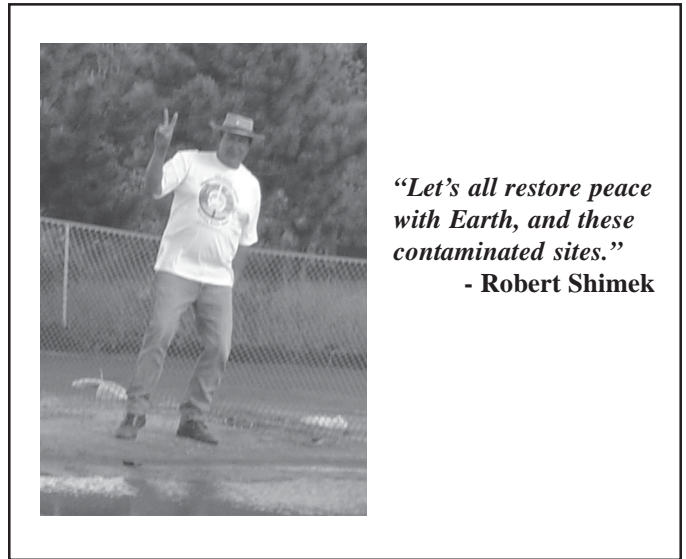
Over time, wood-preserving operations at the St. Regis Paper Company in Northern Minnesota led to disposed wastewater, burned and dumped chemicals, and uncovered sludge pits. Occupying 125 acres on the Leech Lake Indian Reservation within the Chippewa National Forest, the site has affected about 300 acres of land and about 24,000 acres of lakes and other aquatic habitats. Community members have tried for years to get proper clean up of the site, but instead they have endured several superficial efforts.

Wood treatment activities began in 1957 and ended in 1985. The site was added to Superfund in 1984. The company went through various owners, changing from Wheeler Howard, to St. Regis, to Champion (when it closed) to International Paper. Robert Shimek, staff organizer for the Indigenous Environmental Network, said that the operating units, contaminated sites, and dump areas were cleaned up once in the late 1980's by the company. However, Shimek reports, "They totally missed the dioxin in the first clean-up. How many times do you have to clean?" he asked.

The Leech Lake Band of Ojibwe Environment Program started discussing the need for additional cleanup in 1991, and pushed for EPA to take over the site from the state. It took until 1995 for this to happen and, in 1998, EPA took additional tests and found extensive dioxin contamination throughout the site. Later testing found dioxin and arsenic in dust in private homes adjacent to the site. Now the community is awaiting the agency's risk assessment before a final cleanup is defined. In the interim, EPA has proposed removing or replacing carpet from the contaminated homes near the site (42 households), cleaning the inside of these homes, and putting new sod down over the yards. This will be done 2 or 3 times a year until the final cleanup is complete.

Shimek reported that there used to be waste ponds where wastewater was dumped, and that kids used to swim in them. The company also put wastewater on dirt roads to control dust and irrigated with wastewater from the ponds. Neighbors, many of whom worked at the plant, also used the treated lumber for fences and in their homes. By the time the plant closed, most people living on the site were drinking contaminated water from their wells, said Shimek.

From the beginning, the state declared there were no health problems and that the situation was under control. Little was done to address health concerns. Yet Shimek described health



"Let's all restore peace with Earth, and these contaminated sites."
- Robert Shimek

concerns resulting from the site such as birth defects, still-births, respiratory ailments, cancers and numerous deaths.

"This is one of the first places in the country where it's been cleaned up once, all the operating units put in place, and then EPA came back and did more testing and is now in the process of issuing a new ROD," said Shimek. "It is imperative that we clean this up correctly because there are many other similar sites around the country. We will create the template that will be used in other places."

Shimek discussed what was positive and negative about working with Superfund. "If there is virtue, it is community input," he said. He felt that EPA listened to suggestions offered by community members. However, he lamented the red tape. "We're at a point right now where everything has to be negotiated with International Paper," he said. And because not everyone was allowed to participate in these negotiations, community members don't always get the full picture. "We don't know what could have been done as opposed to what is being done," Shimek said.

Shimek also discussed the importance of polluter pay taxes. "Without that opportunity, it limits our options in terms of how to get this place properly cleaned up," he said.

MISSISSIPPI

**Newsom Brothers/Old Reichhold Chemicals, Inc.
Columbia, MS**

Chemical Blast Doesn't Burn Out Preacher's Hope

Charlotte Keys said, "Suffering is suffering." Unfortunately, the Mississippi evangelist is preaching to the choir in her small rural community. "When your population is as small as ours, people tend to turn a deaf ear. A great injustice has been served on people who have been oppressed, suppressed and depressed." The deaf ear Keys is talking about belongs to Reichhold Chemical Company.

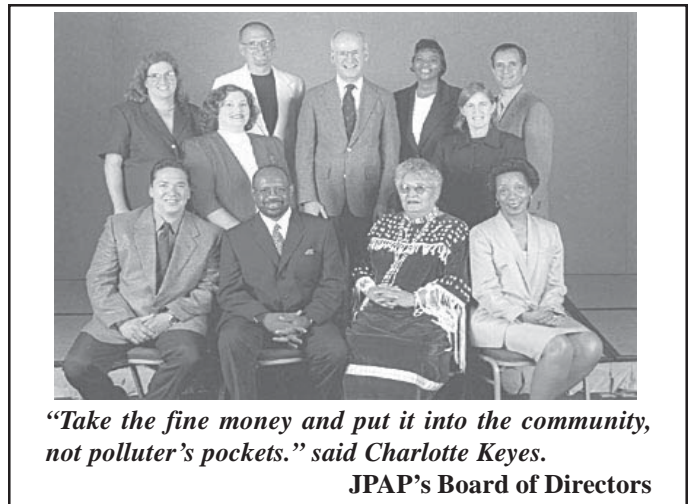
Almost 50 years ago, the company took over more than 100 acres to produce turpentine, resins and other wood derivatives. By 1975, Reichhold had people working in the plant handling deadly toxins, such as pentachlorophenol (PCP) mixed with diesel oil. A year later, the Mississippi Air and Water Pollution Control Commission found the company was discharging wastewater containing phenols, oil and grease into a nearby stream. Reichhold continued operations until 1977, when a major blast destroyed the facility, ceasing operations.

After the blast, Reichhold emptied 10,000-gallon tanks into 55-gallon drums and let chemicals pour onto the ground, running into creeks and ditches. Keys' uncle was a truck driver during this time, and he and other workers buried the drums all over Columbia, specifically along the Pearl River. "The guys didn't really know what they were disposing of," Keys explained. "Nobody trained them to that degree."

The community was unaware of the damaging toxic substances in the area, she said. The plant told people it was just hauling woodchips, but it was actually a chemical manufacturing operation. "I'm not going to say I blame the workers," Keys said. "It was upper level management. Most times, the chief executives don't even go into plants because they have so many."

In 1984, the chief executives were forced to show their faces in Columbia. At that time, EPA discovered 600 surface drums, two contaminated on-site ponds and several areas of contaminated soil. EPA started cleanup but soon realized there were more problems than they could handle and in October 1986, the Reichhold site was put on the NPL. After an initial investigation, EPA removed the drums, filled the two ponds, and cleaned up 81 acres. However, on 25 leftover acres, housing was built for the poor. People who lived there saw workers in moon suits, Keys said, with only a cyclone fence separating people from the highly contaminated property.

Many people complained of health problems. "There's rashes, birth-defect babies, lupus, and Alzheimer's; miscarriages are very high. I had a miscarriage too, and they told me it was [because] my body was weak, but I'm a sports person,"



"Take the fine money and put it into the community, not polluter's pockets." said Charlotte Keys.

JPAP's Board of Directors

said Keys. Other health conditions included kidney failure, lung diseases, skin disorders and cardiovascular diseases.

ATSDR did a health evaluation and never found anything wrong with the people. "They wanted to treat them and talk to them like they were less than human," Keys said. "I don't care how much education you have, you can't come into a community and talk to people like they're nothing."

Today, the Newsom Brothers/Old Reichhold Chemicals, Inc. site is deleted from Superfund. But the help of Superfund was less than sufficient, Keys emphasized. "It helped us no more than to get the TAG and get the reports done," she said. "The community needed relocation and they hurried to get the site delisted so EPA wouldn't be responsible. People are still in jeopardy. They need out and we won't quit."

Keys believes that had her community been a rich neighborhood, it would have received different treatment. "When you have people unorganized and poor with lack of education, anything and everything that could happen would go on," she said. "A lot of wickedness and corruption."

To rectify this injustice, Keys wants all responsibility to be on the polluters. She believes not only should a better health and safety system be put in place for plant operations, but government should have a task force for financial enforcement. "Take the fine money and put it into the community, not polluter's pockets," she said.

A Town is Left in the Dust

Marilyn Leistner knows first hand how important Federal Superfund is. Leistner is the former mayor of Times Beach, once a small 400-acre (8 square miles) community about 28 miles west of St. Louis. During the early 1980s, this city became infamous as the home to massive levels of toxic pollution and became the first community to be relocated using Superfund monies.

The city of Times Beach was a small community located on the banks of the Merrimac River with many unpaved roads that were extremely dusty. As a result, in 1971, and again in 1972, the city contracted with Russell Bliss, who operated a waste oil business, to spray oil on unpaved roads for dust control. It wasn't until much later that they learned that the oil contained the deadly chemical dioxin. According to Leistner, the "city contracted with a waste oil hauler to spray the streets at will." The waste oil contained many toxic chemicals including the most toxic form of dioxin, 2,3,7,8-TCDD and PCBs. A number of companies including Syntex were identified as the original owners of the waste oil.

It wasn't until 10 years later in 1982 that the EPA came in and sampled the roads in Times Beach, and afterward, the nearby Merrimac River that flooded the city. The tests revealed dioxin levels as high as 1,200 parts per billion (ppb) in the soil. On December 23, 1982, the residents received what Leistner and other former residents now call their "Christmas message." She says people were told, "If you are in town it is advisable for you to leave and if you are out of town, do not go back."

Following the "Christmas message," in January 1983, the EPA allocated \$500,000 to the Centers for Disease Control to do a health survey and examination of people in Times Beach. These events would allow Superfund to play a pivotal role in the ensuing months.

On February 22, 1983, EPA pledged \$33 million from Superfund to purchase the Times Beach properties under a relocation plan, which was implemented by the Federal Emergency Management Agency. City officials blocked off the roads to Times Beach and placed security guards to patrol the site around the clock. By 1986, all residents of Times Beach had been permanently relocated.

In 1990, the EPA, the State of Missouri, and the companies responsible for the contamination signed a Consent Decree to clean up Times Beach and 26 other similarly contaminated sites in eastern Missouri. Under the terms of the agreement, EPA was responsible for excavation and transportation of dioxin-contaminated soils from these sites to Times Beach and the responsible parties were accountable for the demolition and disposal of debris, and restoration of the site.

Today, the Times Beach cleanup has been completed, and the former Superfund site is now a state park known as the Route 66 State Park. The cleanup was a massive effort that included installing a temporary and controversial incinerator to burn the contaminated soil. The

community opposed the idea of burning the soil for years, but eventually could not stop the EPA. By 1997, the cleanup was complete, and the incinerator had burned 265,000 tons of dioxin-contaminated soil.

The events that transpired in Times Beach illustrate how essential adequate Superfund resources are. The community was exposed to exceptionally high levels of dioxins and as Leistner points out, "it is very difficult for the former residents of the community to not associate their health problems with their exposure, because they were allowed to live on the site for 10 to 11 years." However, Superfund did make it possible for people to leave this toxic community. Without Superfund, it is a virtual certainty that the health problems related to the site would have been even worse.



Marilyn Leistner, the last mayor of Times Beach, Mo., stands before the mound where during decontamination her home and other houses were buried.

MONTANA

**Clark Fork River/Milltown Reservoir Site
Butte, Anaconda, Opportunity, Deer Lodge, Milltown and Missoula, MT**

10 Year Struggle to Clean Up Massive Superfund Site Gains Momentum

Over the last 10 years Kathy Hadley and the Clark Fork River Technical Assistance Committee (CFRTAC) have been fighting for the cleanup of the upper Clark Fork River and the Milltown Reservoir Superfund site. Over 100 years of copper mining and smelting production created toxic mine sediments that were washed downstream, into the upper Clark Fork River Basin and lodged in the Milltown Dam reservoir. The site is so large, about 120 river miles long, that the cleanup process has been extremely slow. Hadley noted that, "The river and dam site haven't been cleaned up yet. Only bits and pieces of work have been done."

The Clark Fork River Superfund site is a group of sites within the Upper Clark Fork River corridor and the Milltown Reservoir. Community concerns come largely from the towns of Butte, Anaconda, Opportunity, Deer Lodge, Milltown and the city of Missoula, a major population center directly downstream of the dam and reservoir. In 1906 a hydroelectric dam was constructed along the Clark Fork River. The dam created a reservoir that trapped sediments washed down from the mining and smelting operations in the Butte and Anaconda areas.

In 1981, Milltown's four community water supply wells were found to be polluted with arsenic and other heavy metals. People were advised not to use this water for drinking or cooking and to use alternative water supplies. Eventually, scientists discovered that approximately 6.6 million cubic yards of contaminated mine tailings had washed downstream from Butte and that the high concentrations of toxic metals were not only poisoning wells, but were wreaking havoc on the local fish population. EPA designated the Milltown Reservoir and the upper river as Superfund sites in 1983 and 1985.

Local citizens were able to get a Superfund Technical Assistance Grant (TAG) to help fund the group's activities. Hadley noted that TAGs are a primary benefit of the Superfund program. "We hire independent scientific experts to review documents and studies, and collect other important information on behalf of our communities," she said. "We inform the public by making available EPA and state government studies, Arco studies, and our own independent analysis about cleanup options proposed by those involved with the Superfund process. We promote public involvement in the Superfund process by posting everything we can on our website (www.cfrtac.org), hosting public meetings, distributing a newsletter and doing a monthly local radio commentary."



"I started working on this site when my son was five and he recently graduated from college, yet major cleanups have not started. Unfortunately, I'll likely be dead before the Clark Fork River is restored."

- Kathy Hadley

Another benefit of Superfund is the ability of the residents to receive fair market value for their contaminated properties. Superfund "led to a buyout of the families living in the area closest to the smelter, and all homes in Mill Creek are gone now, bought out by the Potentially Responsible Party (Arco)," said Hadley.

Although some progress has been made thanks to Superfund, Hadley points out that there are limitations. "It is way, way too slow. I started working on this site when my son was five and he recently graduated from college, yet major cleanups have not started. When cleanup actions do start next year it is possible that work will continue for at least 10 to 20 years. Unfortunately, I'll likely be dead before the Clark Fork River is restored."

In August 2005, EPA, the U.S. Fish and Wildlife Service, the state of Montana, the Confederated Salish and Kootenai Tribes and the US Department of Justice announced that Atlantic Richfield Company (Arco) and Northwestern Corporation agreed to complete a \$100 million-plus cleanup of the Milltown Reservoir. This agreement took years of negotiations and is a direct result of the work of many, including the Clark Fork Coalition, the state of Montana, CFRTAC and the local communities.

Superfund "Loophole" Hurts Cleanup Effort

The 17,000-acre Nebraska Army Ordnance Plant (NOP) is located in Mead about 30 miles west of Omaha. This site was officially added to the federal Superfund list on August 30, 1990. It operated from 1942 to 1956 as a munitions production plant during World War II and the Korean War. The Army also used the area for munitions storage and ammonium nitrate production. The Air Force built and maintained three Atlas Missile silos at the facility from 1959 to 1964. In 1962, portions of the plant were sold to various entities, one of which was the University of Nebraska. The University currently uses a portion of the site as an agricultural research station. Formerly, they used the site as a medical waste dumping ground.

The former NOP is located in the Todd Valley, an abandoned alluvial valley of the ancestral Platte River. Three aquifers are present at the site, all of which are in hydraulic communication with each other, therefore causing them to behave as one aquifer. This aquifer directly feeds into Nebraska's historic Platte River, a major water and energy source for the state of Nebraska.

The NOP has been a concern of local residents for over a decade, but didn't come into the forefront until the Omaha Metropolitan Utility District (MUD) received a 404 permit issued by the Omaha Corps of Engineers to construct a new municipal well field less than three miles from the NOP plume border. Despite many attempts to halt the new well field project by Saunders County officials, 26 wells out of a total of 42 that will be built have made their way into the ground.

Local residents, understanding the danger of installing a municipal well field so close to an uncontained Superfund site, got together and formed the Water Quality Environmental Council (WQEC). Through private donations, the WQEC has been able to independently research the NOP and its dangers to the future MUD well field. "Our goal is to protect the Nebraska

community; their land, their natural resources, their health and ultimately their tax dollars," states Lynda Wageman, founder of the citizens group. "It's a bad situation out here," says Ms. Wageman. "Seven chemicals of concern, have been identified by the Kansas City Corps of Engineers (a responsible party): methylene chloride, 1,2-dichloropropane, trichloroethylene (TCE), TNB, TNT, RDX, and 2,4-DNT. Yet, there are still many recognized by the EPA that need to be dealt with such as: radioactive chemicals and wastes, flammable/non flammable solvents, toxic laboratory wastes, paint residue, formaldehyde, phenol, unexploded ordnance and mustard gas."

"The slow progress in cleaning up the Nebraska Ordnance Plant is directly related to the "Superfund loophole" – the fact that the Army is not subject to the basic procedures outlined in the Superfund law."

-Lynda Wageman

The slow progress in cleaning up the Nebraska Ordnance Plant is directly related to what Wageman calls the "Superfund loophole" – the fact that the Army is not subject to the basic procedures outlined in the Superfund law. Because Superfund does not apply to responsible parties such as the Army, it has not played a viable role at the Nebraska Ordnance Plant. Wageman and the WQEC see this as a major

weakness in the Superfund program. "Although, the Federal Superfund does not finance DOD clean-up, the committee overseeing this national project must hold the military accountable. Carcinogens are deadly, no matter who dumps them."

The WQEC believes that the chosen well field location defies logic and puts the federal objective behind Superfund at risk. "We have found that logic doesn't factor into this situation, it's political" says Ms. Wageman. "What's frightening is that the more you research, the more influential the political players become. How can the Corps or EPA eventually contain or clean up a Superfund site if they are forced to work around external stressors which will directly affect their clean-up activity?" "The government is fighting itself and it will be the Nebraska people that will lose."

NEW HAMPSHIRE

**Dover Municipal Landfill
Dover, NH**

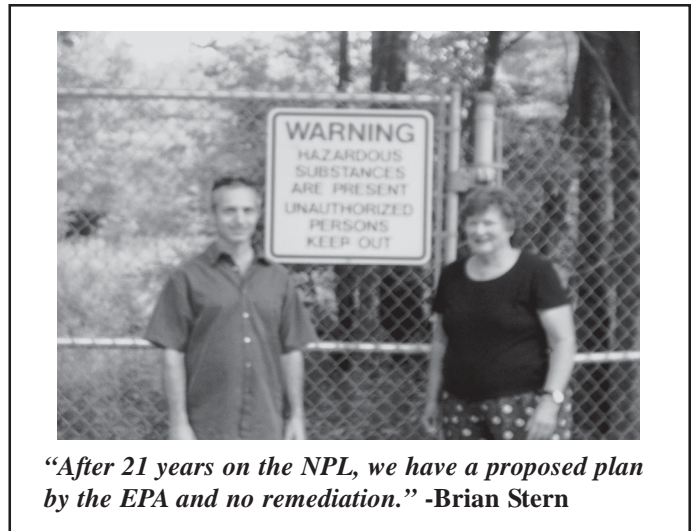
Superfund Plays Instrumental Role in Dover Landfill Cleanup

For 25 years, the Federal Superfund program has protected countless communities from industrial toxic waste. The experiences of Brian Stern and the New Hampshire TAG Force with the Dover Municipal Landfill, illustrate the important role Superfund plays in the cleanup process of the nation's waste sites. Without Superfund, it appears that cleanup of this site would be wishful thinking at best.

The Dover Municipal Landfill is a 50-acre inactive dumpsite located in the Mallego Plains section of Dover. The city began operating the landfill in 1960 as a normal domestic refuse landfill, but by the 1960's it began accepting large amounts of industrial waste. In 1977, the State installed monitoring wells, began testing and found high levels of organic solvents from the landfill were entering groundwater, threatening nearby residential wells and the public water supply for the cities of Dover and Portsmouth. The city of Dover and the state ordered the site closed in 1980. The site was added to the NPL in 1983.

The site is located in a residential area; a nursing home is only 2,500 feet away, and a prison and working farm are nearby. There are 50 homes within 1 mile of the landfill, and the surrounding area is used for hunting and berry picking. Leachate from the landfill is entering the Cocheco River, only 400 feet away from the site but, according to Stern, the primary concern for the community has been the threat to the Bellamy reservoir which provides drinkingwater to Portsmouth and several surrounding towns. This leachate contains solvents such as benzene, 1,2-dichloroethylene, trichloroethylene, and vinyl chloride, according to Stern. Elevated levels of arsenic were found in the river sediment

EPA's initial response in 1981 was to install new water lines to homes with contaminated private wells and connect them to clean water. By 1984, Superfund began playing an instrumental role. The responsible companies became actively involved in 1988 and by 1991 a proposed remedy was selected. But the companies, according to EPA, delayed implementation. Instead, EPA began a research project to see if a bioremediation process would clean the groundwater. By 2002, they realized it would not work and proposed a new cleanup plan in 2004. The revised plan calls for removing the landfill cap, installing an experimental air sparging trench to collect and treat contaminated leachate and groundwater, and a contingency back-up plan of capping in the event the trench does not work.



This process has been extremely slow and methodical. Stern states, "After 21 years on the NPL, we have a proposed plan by the EPA and no remediation." He expressed frustration that "EPA allowed the PRP to investigate the site and apparently in doing so EPA gave up their authority to do so. This compromised the speed and quality of the assessment of the site." However, he is quick to point out that without Superfund it is likely that the Dover Landfill might never have been cleaned up. "Obviously without CERCLA (Superfund) who knows if anything would have been done. Certainly the power of the law forces the PRP to address the site. They are being taken kicking and screaming, but forced to address the hazards posed by the site, so CERCLA has helped."

Another important role that Superfund has played was in providing a TAG to the community. Stern points out, however, "we got the grant at the end stages of the process, and earlier involvement would have been better." Brian Stern and the New Hampshire TAG Force are well aware of the implications and ramifications of Superfund's bankruptcy and that their experience illustrates the important role Superfund plays in cleaning up sites. For this reason, they believe that the polluter pays provision of the Superfund program is very important and that fees "absolutely" need to be reinstated.

Transformer Oils and PCBs Dumped Directly into Soil; Surrounding Water and Wetlands Affected

From 1936 to 1962, Cornell Dubilier Electronics (CDE) manufactured electronic parts and tested transformer oils on a 25-acre property in South Plainfield. CDE also dumped transformer oils containing PCBs onto the site and buried transformers behind the facility. Soil at the rear of the property are reportedly saturated with PCBs, metals, chlorinated solvents and other chemicals. Numerous streams and ponds in the area have been affected, leading to both environmental and community health concerns. Community members feel that clean-up of these areas has been insufficient.

The New Jersey Department of Environmental Protection found unsafe levels of the degreasing agent, trichloroethylene (TCE), several metals, volatile organic compounds and PCBs in soil and sediment samples. Significant levels of PCBs were also found in indoor dust in nearby buildings and homes. "The USEPA's own risk assessment at this extremely hazardous site found a cancer risk in excess of 3 out of 100," said Bob Spiegel, director of the Edison Wetlands Association (EWA).

Site-related contamination has spread to rivers, streams, and ponds as far away as 25 kilometers. "Some of the highest levels of PCBs in the state of New Jersey are found in the fish caught in the Bound Brook adjacent to and downstream from the site, where many local residents still unknowingly fish," said Spiegel. A significant number of people also obtain their drinking water from wells within 4 miles of the site.

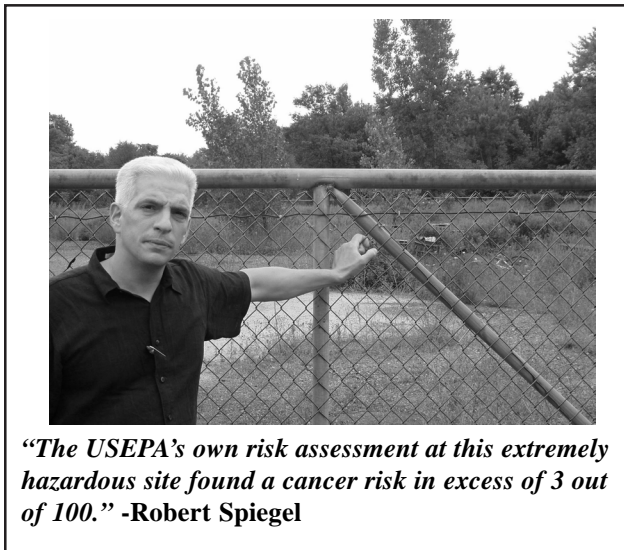
EWA commented on the inadequacy of the EPA's initial cleanup which included paving areas of the site, fencing the site, and installing drainage controls to limit contaminant movement. More extensive cleanup was scheduled to start this summer, but the approximately \$100 million required to complete the work was not available through the Superfund. Consequently, the design remains incomplete and the project is on hold.

The ATSDR issued a public health assessment recommending that the site be restricted and warning signs be posted. "They advised that optimal dust control measures should be used," said Spiegel. "Onsite workers should be advised on potential health risks, and fish from the Bound Brook, New Market Pond, Spring Lake, and their tributaries should not be consumed."

Despite this warning, people are still working in the contaminated buildings on the site. "The dust in these buildings exposes people to heavy metals and PCBs at levels that may cause adverse health effects, said Spiegel. "In addition, the shallow groundwater plume under the site contains TCE and PCBs, yet the vapor intrusion pathway has not been considered inside buildings on or off-site."

Although Superfund helped a limited area get cleanup, including a daycare center, some residences, and some lawns, the funding was quickly used up. Spiegel said that the cuts in the program were detrimental locally and had broader implications. "We observed an institutional failure from the USEPA onsite project managers, to middle management, and up to regional administrators," said Spiegel, "as demonstrated by continual siding with polluters instead of protecting public health and the environment."

EWA considers the polluter pays provision to be essential to Superfund. Without this, accountability is negligible, and the EPA's efforts are weakened. "In the past, the triple damages provision of Superfund allowed USEPA to recover triple the cost of the cleanup from a recalcitrant responsible party. The triple damages fee was a high cost most polluters worked hard to avoid, and so it served as a stick for enforcement. Now that Superfund funding is lacking, polluters know that the USEPA is essentially unable to follow through with cleanups. The threat is no longer there, and polluters can be more relaxed about the timeliness and effectiveness of their cleanup. Reinstating 'polluters pays' fees would greatly benefit Superfund," said Spiegel.



"The USEPA's own risk assessment at this extremely hazardous site found a cancer risk in excess of 3 out of 100." -Robert Spiegel

NEW MEXICO

**Molycorp, Inc.
Questa, NM**

Questa Opens Its Eyes to Injustice, Closes Its Mouth to Contaminated Well Water

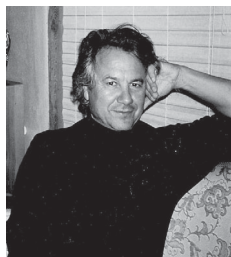
An estimated 1,100 people live within a few miles of the largest hard rock mine in the Rio Grande watershed. Since it commenced operations as an underground mining pit in 1920, the Molycorp, Inc. mine in Questa has produced more than 320 million tons of acid-generating waste rock next to the Red River. Molycorp, a fully owned subsidiary of Unocal, was also permitted to dump 82 million tons of tailings. The pollution from the molybdenum mine contaminated the neighborhood's well water, which residents drank unknowingly for years.

The light went on for the community in the late 1970s, however, when EPA and the Federal Bureau of Land Management began documenting major impacts to the Red River due to mining and breaks in the pipeline. In 1994, the New Mexico Environment Department conducted an investigation, finding there was a release or threat of release of hazardous substances from the waste rock piles and tailings ponds to groundwater and surface water, according to EPA. The principle pollutants included arsenic, lead and zinc. Several residents have asked EPA to take samples of their private wells and the agency is currently considering this request.

Despite these findings, the mine site wasn't listed on the NPL as a proposed Superfund site until May of 2000. According to EPA, the site was proposed "primarily because of the threat to the Red River fishery and nearby engendered species habitat from uncontrolled acidic, metal-laden runoff and acid rock drainage from the mine and the tailings pond." The mine contributes an annual discharge of 15,200,205 pounds of metal and sulfide and Total Dissolved Solids (TDS) to the Red River.

"The mine continues to be in operation and is releasing pollutants into air, water, and soils," said Brian Shields of the environmental group Amigos Bravos. After tailing dust blew frequently and forcefully into the high school, the students had to be relocated, but "[the school] is now being used again as a school, and children, teenagers and community members continue to play and fish in the contaminated river."

The neighborhood adjacent to this mine site has a higher rate of cancer, respiratory illnesses, learning disabilities and other health problems associated with metal contamination from exposure to both water and air contamination migrating from the site. ATSDR concluded in a final report this year that there may be cause for concern, "but in typical ATSDR fashion, the agency refused to draw conclusions," Shields emphasized.



"Refinancing Superfund with polluter pay taxes would absolutely speed up the process, but until then, Amigos Bravos is on their own."

- Brian Shields



Amigos Bravos, did not receive a Technical Assistance Grant to help the community review the technical data. However, the Rio Colorado Reclamation Committee, a group established for the specific purpose of overseeing the Superfund process, did receive a TAG grant. The process is definitely slow, Shields said, and Molycorp, the responsible party, is doing all of its own investigation with little independent oversight from EPA. Refinancing Superfund with polluter pay taxes would absolutely speed up the process, he said, but until then, Amigos Bravos is on their own. "We're still in the RI [remedial investigation] phase of the project," he explained. "We are now beginning to get some data that may be useful in making a case for accelerated cleanup."

**Brian Shields * Amigos Bravos
Taos, NM**

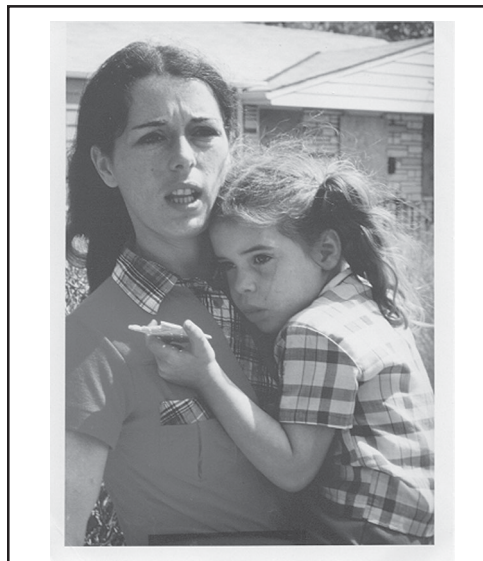
Love Canal and the Birth of Superfund

The birth of Superfund is directly attributed to the Love Canal toxic waste site in western New York. The dangerous health and environmental hazards at Love Canal were so severe it became the catalyst in creating the Federal Superfund law twenty-five years ago. Decades later, Lois Gibbs, leader of the Love Canal Homeowners Association (LCHA) and current CHEJ Executive Director, remains a visionary leader and continues to fight for Superfund justice. Gibbs, after years of fighting environmental abuse, says, "Congress must restore the hazardous waste fees on polluting industries and reject all efforts to roll back Superfund."

The history of Love Canal began in 1892 when William Love proposed digging a canal to connect the upper and lower Niagara River and provide cheap power. He was forced to abandon the project, leaving behind a partially dug section of the canal, three thousand feet long. In 1920, the land was sold and chemical waste was dumped at the site until 1953. The principal company that dumped waste was Hooker Chemical Corporation, now a subsidiary of Occidental Petroleum.

In 1953, after covering the 70-acre canal with dirt, Hooker sold the land to the Niagara Falls Board of Education for one dollar. Included in the deed transfer was a "warning" that chemical wastes were buried on the property and a disclaimer attempting to absolve Hooker of any future liability. Ignoring the threat, the Board began constructing an elementary school on the property. Almost immediately, residents complained of odors and substances surfacing in their yards and on the school playground. City officials decided to cover the "substances" with dirt or clay, and to place window fans in a few homes found to contain high levels of chemical residues. This clearly was not enough to offset over 20,000 tons of toxic waste buried beneath the center of this peaceful community.

By 1978, the health effects were so severe that *Niagara Falls Gazette* reporter Michael Brown published a series of articles, and Gibbs recognized the magnitude of the situation. She had been puzzled by the array of illnesses that frequently hospitalized her children, including epilepsy, asthma and urinary tract infections. Gibbs helped organize her neighbors into the LCHA. "I was just furious and frightened," said Gibbs.



"The plight of citizens at Love Canal outraged the American public and led to the passage of the Superfund law to find and clean up the nation's worst toxic dumps." - Lois Gibbs

The group conducted a study of families living in the neighborhood, which found increases in miscarriages, stillbirths, crib deaths, nervous breakdowns, hyperactivity, epilepsy and urinary tract disorders. It also showed that from 1974 to 1978, 56% of the children were born with a birth defect. Some birth defects included three ears, double rows of teeth and mental retardation. When Gibbs presented these findings to state health authorities, they quickly dismissed the study calling it "useless housewife data." As a direct result of LCHA's fight, President Jimmy Carter ordered a total evacuation of the community in October of 1980. The toxic waste crisis and the work of Gibbs and the Association illustrated the need for government intervention. As a result, in December of 1980, Congress enacted the Federal Superfund law to clean up not just Love Canal, but the worst sites throughout the nation.

"The plight of citizens at Love Canal outraged the American public and led to the passage of the Superfund law to find and clean up the nation's worst toxic dumps," said Gibbs. Love Canal is one of hundreds of dumps and adequate Superfund resources are essential to clean up the nation's sites. Gibbs states, "The core principle of the Superfund program is that polluters, not taxpayers should pay to clean up these deadly toxic waste sites. In addition to providing funding for the cleanups, the polluter pays principle creates a powerful disincentive against the reckless dumping of toxic wastes."

NEVADA

Carson River Mercury Site Lyon/Churchill Counties, Nevada

Nevada's Only Superfund Site Threatens the Local Water Supply

The Carson River Mercury Site consists of a 50-mile stretch of the Carson River beginning near Carson City and extending downstream to the Lahontan Valley. As of June 2004, the Carson River Mercury Site is the only site in the State of Nevada listed on the Superfund NPL.

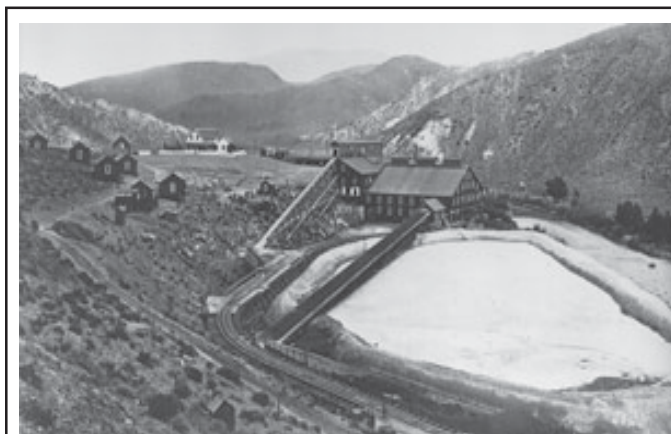
Contamination at the site occurred during the Comstock mining era of the late 1800s, when mercury was imported to the area for processing of gold and silver ore. Ore mined from the Comstock Lode was transported to mill sites, where it was crushed and mixed with mercury to amalgamate the metals. Unfortunately, the mills were adjacent to the Carson River, and the availability of water power made the mills along the river extremely susceptible to pollution. During the mining era, an estimated 7,500 tons of mercury were discharged into the Carson River, primarily in the form of mercury-contaminated tailings.

Since the Carson River Mercury Site extends over such a large area, it has the potential to affect several sources of groundwater, among them the Dayton Valley Aquifer. Groundwater in the Dayton aquifer is as shallow as 10 feet near the river, and the soils are comprised of permeable sands and gravel. These conditions facilitate movement of contaminants into ground water. It is estimated that 1,400 people obtain drinking water from wells within 3 miles of the site - the nearest is within 2,000 feet - and approximately 1,200 acres of food crops are irrigated by the Carson River between Dayton and the Lahontan Reservoir.

After the site was listed on the NPL in 1990, the EPA began a Remedial Investigation and Feasibility Study at the site. The initial phase of the investigation, which lasted from 1993 to 1995, involved the collection and laboratory analysis of hundreds of samples including surface and sub-surface soils, sediments, groundwater, vegetation, garden crops, and indoor air.

As part of the assessment, EPA established a site-specific cleanup level of 80 parts per million (ppm) mercury for contaminated soils in residential areas. The agency found four areas along the Carson River that exceeded the 80 ppm soil cleanup level, including 12 homes. In 1995, the EPA Record of Decision called for the excavation of these contaminated soils and their off-site disposal. The remedy also included restoration and landscaping of contaminated areas after excavation and backfilling.

Between 1995 and 1997, the EPA made preparations for the cleanup. First, the EPA completed additional sampling to more precisely identify the extent of soils requiring cleanup. They



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then reached agreements to compensate the owners and tenants of the residences slated for demolition, and finally through Superfund, the EPA secured funding for the cleanup work.

From August 1998 through December 1999, EPA's contractors carried out cleanup work in Dayton and Silver City. Ultimately, approximately 9,000 cubic yards of contaminated soil was removed. Most of the soils were disposed at a nearby landfill. Finally, pipelines, fences, walls, and other utilities were replaced or restored, and needed drainage improvements made.

According to the EPA, the ecological risk assessment at the Carson River site has been more extensive than is typical at Superfund sites, because of the absence of an inexpensive cleanup option for the contaminated sediments. As a result, the cleanup process is still ongoing, and investigations are expected to continue through at least 2005. After the studies are completed, the EPA will evaluate the costs and benefits of cleaning up the mercury contamination in the Carson River and subsequently determine what type of cleanup is warranted. However, this all depends on adequate Superfund funding. Without Superfund, it is likely the EPA will not be able to afford the cleanup and as a result the citizens of Nevada will continue to be exposed to the contaminated waters of the Carson River.

NORTH CAROLINA

**Koppers Company, Inc.
Morrisville, NC**

For Community with Long History of Activism, This Fight was One More Victory

The unincorporated, historic African-American community of Shiloh was formed by families of freed slaves over five generations ago. “The Koppers Company’s wood treatment plant, which used PCP and toxic metals to prevent the decay of wood products, was once the largest employer in Shiloh,” said Hope Taylor-Guevara, now executive director of Clean Water for North Carolina, but previously a Technical Assistance Grant advisor working for the Shiloh community during the clean up. Koppers acquired the 52 acre site, located about 1 mile northwest of Morrisville in 1962. From 1968 to 1975, wood was treated with pentachlorophenol (PCP), and the wastewater from the process was dumped into a pond and two unlined lagoons. The site was added to the NPL in 1989 because of contaminants found in drinking water wells, fish and pond sediments.

After the lagoons were closed in 1977, liquid from the lagoons was sprayed over an area of the site and the sludge was mixed with soil and spread over the lagoon area. In 1980, PCP was found in on-site soil, wells, and pond water and sediment. Some PCP-contaminated soil was removed, but much of it remained on-site until the cleanup. Runoff from the site drains into creeks, ponds used for fire protection, and ponds used for fishing and irrigation of garden crops. Additionally, an estimated 2,200 people get their drinking water from groundwater within three miles from the site.

Community health concerns included “the dioxins (and chemically similar furans) found in on-site soils and sediments, as well as in fish,” said Taylor-Guevara. Some well samples found levels above North Carolina’s maximum contaminant level. The community experienced “high levels of cardiovascular disease, Alzheimer’s, and cancer,” said Taylor-Guevara, and “many died of cancer before the site was listed on NPL.” Although some drinking water was brought in, exposure through showering and washing continued for over a year.



“It was clear that Region 4 EPA was unwilling to put pressure on the Responsible Party for additional studies of contamination and appeared to be much more attentive to industry needs than community concerns.”

- Hope Taylor-Guevara



Nathanette Mayo at 1992 Press Conference in Shiloh

Some struggles with Superfund included the pace, as well as the EPA’s reluctance. “It was clear that EPA Region 4 was unwilling to put pressure on the Responsible Party to do additional studies of contamination and appeared much more attentive to industry needs than community concerns,” said Taylor-Guevara. However, the EPA did give the community a good deal of say in who did the cleanup and how it was done. It took continued pressure by the community, said Taylor-Guevara, but in the end they “let the community take a lot of the lead.” Concerned citizens such as Ruby Mayo, her daughter Nathanette, and Peggy Medlin worked with the community’s Shiloh Coalition and other community members to form the Clean Water and Environment Project for Shiloh (CWEPS). They aimed to get local residents more involved, and succeeded in hiring a technical advisor using a TAG grant.

Other cleanup actions included the installation of three more miles of public water supply lines to affected homes near the site. Further, more soil was removed and water treatments began. Shiloh residents claimed a victory “in its struggle to remain a rural enclave” when the EPA did a series of comprehensive well-sampling events, said Taylor-Guevara. They felt this helped ensure their “right to safe well water.” More well samplings have ensued. Many wells show no or very low levels, but the story is not over for all families. The community continues to review annual reports concerning their groundwater pump and treat system.

NORTH DAKOTA

Old Minot Landfill Minot, North Dakota

A True Superfund Success Story

When the Federal Superfund program was implemented in 1980, the hope was to identify and cleanup the nation's worst toxic waste sites. Over the last two and a half decades, the program has facilitated the cleanup of numerous hazardous waste sites, including the Old Minot Landfill. Located in Minot, the Old Minot Landfill illustrates the critical role Superfund plays in the cleanup of toxic waste sites.

The Old Minot Landfill is one of only two Superfund sites in the state of North Dakota. It is located approximately one mile southwest of downtown Minot. From 1945 to 1971, the 45-acre landfill was privately owned and operated, and according to the former operator, the landfill received refuse shipments from several nearby industries during the years of 1961 to 1970. These shipments included numerous drums from an oil company, spent battery casings from a recycling company, and calcium carbide and associated lime sludge from an acetylene production facility. Due to the intense amounts of pollution associated with these chemicals, the landfill was eventually closed down.

Following the closing of the landfill, the North Dakota State Department of Health (NDS DH) and the EPA began investigating the site. By 1985, the NDS DH identified several organic and inorganic chemicals in surface water located at the landfill. They also recognized that gas generated from the decomposition of buried landfill waste contained 20 percent methane, which posed a threat of fire and explosion. The situation was so extreme that gas bubbles were observed in standing water, and a "foul sewer smell" was noted. These observations would lead to further testing by the EPA.

In June of 1986, EPA identified benzoic acid, toluene, benzene, ethylbenzene, xylenes, 2-butanone, bromomethane, and 1,2-dichloroethylene in surface water downstream of the landfill. This is significant because the city of Minot draws much of its drinking water from the Souris River within one mile downstream of the landfill, as well as from numerous wells within three miles of the site.

The tests performed by the EPA confirmed that the Old Minot Landfill was an extreme example of toxic pollution. This led the EPA to designate the Minot Landfill as a Superfund Site in March of 1989. The cleanup of the landfill was conducted by a joint effort involving city, state, and federal agencies. Leachate

The story of the Old Minot Landfill illustrates the important role Superfund plays in the cleanup of the nation's toxic waste sites. Without Superfund, the Old Minot Landfill would likely have remained a serious threat to the water supply of the city of Minot.

and gas collection systems were installed. The leachate was treated at the City of Minot waste-water treatment plant and the landfill gases were vented at the site. A clay cap was installed over the top of the landfill. The final step was to install a ground water monitoring system.

By the summer of 1996, the cleanup at the Minot Landfill had been completed and as a result, the State of North Dakota and the EPA approved the Final Remedial Action Completion Report on November 29, 1996. The site was officially deleted from the NPL on April 1, 1997. Currently, the site is not completely fenced, which raises concerns about whether people and animals can come into direct contact with any hazardous substances. However, a five year review completed in September 2001, concluded that the conditions at the landfill did not pose a threat to human health or the environment. Another review will be conducted by September 2006.

The story of the Old Minot Landfill illustrates the important role Superfund plays in the cleanup of the nation's toxic waste sites. Without Superfund, the Old Minot Landfill would likely have remained a serious threat to the water supply of the city of Minot. The city of Minot has a population over 33,000, which is more than 5% of the population of the entire state of North Dakota. However, as a result of Federal Superfund, the EPA was able to cleanup the Old Minot Landfill, and in the process illuminate the true magnitude of the Superfund program. Without this funding the citizens of Minot would remain the victims of industrial toxic pollution.

Century-Old Mine Leaves Lead Poisoning In Its Wake

More than a century ago, workers began mining in Ottawa County. The original mine operators were small entrepreneurs, making a living for their families. In the early 1920s, the mines began to consolidate. Soon, the corporations took over, and by the 1940s, more than 10 companies controlled the mines. Little did the profiting companies know, decades later after they had abandoned the mine sites, they would be responsible for the environmental destruction of a community.

Despite their obvious role as potentially responsible parties, the companies were not cooperative in cleaning up their mess until just recently, said Earl Hatley and Rebecca Jim of the Local Environmental Action Demanded Agency, Inc (LEAD). In September 1983, the abandoned lead and zinc mines, part of the Tri-State Mining District, became the Tar Creek Superfund site. This designation gave EPA the funds and ability to work on cleaning up the site even though the PRPs were not cooperating, Hatley and Jim said.

The 50-square mile site contained native sulfide minerals, which dissolved creating acid mine water and surfaced in 1979, killing all the fish in Tar Creek. A consumption advisory was recently issued for all species of fish in nearby rivers because of lead levels in fish. Flotation ponds containing mine tailings cover nearly 800 acres. Also, approximately 75 million tons of small grain mine waste remains on the surface of the site and is in piles up to 200 feet tall. These “chat” piles are a source of exposure to the population, especially to young children.

LEAD took control and conducted a door-to-door survey of the affected towns in the site area to determine which were the common diseases in the area. After surveying 562 homes, they concluded dominant health concerns included kidney and liver disease, hypertension, and upper respiratory diseases, among others. In 1994, the local Indian Health Service clinic found that 34 percent of the Indian children tested had blood lead levels at or above the CDC limit of 10 micro-grams per deciliter.

The exposure came from yard soil, dust in homes, eating contaminated fish, plants, game, homegrown produce and agricultural products from the area, Hatley and Jim explained.

ATSDR performed a public health assessment in 1984, and concluded that the site was not a health problem, they said. ATSDR is now developing a revised health assessment based on current knowledge about the site.

In 2002, LEAD continued their research after they received a Technical Assistance Grant. “We conducted a review of the existing federal and state information on the site, as well as a research of all health-related activities/findings about the site,” Hatley said.

The Army Corps of Engineers has also jump-started a watershed approach to deal with the Tri-State Mining problems. EPA is now a partner in that approach. Progress crawled along slowly, however,

because EPA was always reluctant to spend money on the site, Hatley and Jim said. “We feel it is because we are a small rural population of low-income people with a large population of Native Americans,” they said.

Depletion of the Superfund Trust Fund has further impacted progress of the site. The implementation of a new Operable Unit dealing with the non-residential portion of the site was stalled for several years due to lack of funding from Superfund and stalling tactics of the PRPs.

“The treble cost recovery provision was EPA’s hammer, which no longer exists now that the fund is depleted,” Jim said. “The fund has been the only mechanism which has made a difference.”

Despite the hardships in dealing with a diminishing money source, as of April 2005, 2,071 residential yards and public areas have been remediated. Hatley and Jim believe reinstating polluter pay taxes will keep the progress alive and help kick the Superfund program back into gear.



In 2002, LEAD continued their research after they received a Technical Assistance Grant.

OHIO

Industrial Excess Landfill (IEL) Uniontown, Ohio

Twenty Years & \$20 Million Later Now Finally the Truth Appears on the Horizon

For 22 years, the Concerned Citizens of Lake Township (CCLT) have been fighting for truth, justice, and ultimately a safe and permanent cleanup of the Uniontown Industrial Excess Landfill (IEL). Located in Uniontown, 10 miles south of Akron, this landfill represents what may be one of the nation's worst Superfund cleanup stories.

According to EPA, an estimated 780,000 tons of solid waste and 1,000,000 tons of liquid waste was dumped into IEL. Significant contributions came from Akron rubber companies, B.F. Goodrich, Bridgestone/Firestone, Goodyear, but other potential defendants include the U.S. Army. Based on raw tonnage, this makes IEL 30 times larger than the infamous Love Canal site in upper New York State. Chris Borello, head of CCLT, points out that the most alarming fact may not be the countless toxins including benzene, toluene, PCBs, metals and vinyl chloride that are known to exist at IEL, but "rather that toxic nuclear materials may lie in this highly permeable glaciated area posing a threat for thousands of years."

This concern is based in part on statements made by the former owner of IEL, Charles Kittinger who testified in Federal Court in 2001 that he believed plutonium cores were buried in the landfill. Indeed, EPA admitted in the Justice Department report that "anomalies" in MRI testing showed up in the area identified by Kittinger. Local residents have signed affidavits stating that they saw Army flatbed trucks bringing in canisters and tankers bearing the nuclear placard during the same dumping period.

Although these statements would appear to be enough to warrant an investigation into the contents of IEL, this has not been the case. This led Borello and others to conclude that "there is zero science at IEL, just politics, due to possible serious legal liability for potentially responsible parties (PRP), including the U.S. government."

When IEL was added to the NPL in 1984, CCLT immediately requested radiation testing on the water, soils, and gases, but EPA refused. This led CCLT to become the nation's first citizens group to obtain a Technical Assistance Grant (TAG), which allows groups to hire independent scientists to review the EPA's work. CCLT obtained a \$50,000 TAG grant in 1989 and a second \$50,000 grant a few years later.

Unfortunately, these grants have only illuminated the problems at IEL. More recently, CCLT began working with internationally renowned plutonium experts, Dr. Mark Baskaran of Wayne State



"Reinstating the polluter pays fees will "serve as a major deterrent from future pollution," said Chris Borello.

in Detroit, and Dr. Michael Ketterer of Northern Arizona University. They expressed deep concern that the IEL plutonium readings in groundwater were thousands of times higher than normal fallout worldwide and higher than the health-based action limit set at Rocky Flats in Colorado. On January 12, 2005, they wrote a letter indicating that IEL's plutonium levels were comparable with groundwater at the Nevada Nuclear Test Site and that EPA's radiation testing at IEL was not done properly.

After all these years, there has been no cleanup at IEL. Incredibly, EPA chose to abandon its original cleanup plan from 1989 – a cap and pump and treat system – after bowing to the wishes of the polluters, and opted instead for passive monitored natural attenuation (MNA). This "remedy" is often referred to by community leaders as a "do nothing" method because it simply flushes the contaminants into the area's water supply. This is alarming because 27,000 people live within a 3-mile radius of the site and are groundwater dependent.

Borello believes that the MNA option of "dilution as the solution to pollution" was chosen in large part due to a lack of funding for Superfund. But she goes on to say "while funding has always been an issue, the main problem with Superfund has been weak enforcement of the Superfund laws driven by politics and zero accountability at EPA regarding possible mishandling of sites such as IEL." However, Borello adds that reinstating the polluter pays fees will "serve as a major deterrent from future pollution."

After Years of Toxic Abuse, Superfund Shows Light at End of the Tunnel

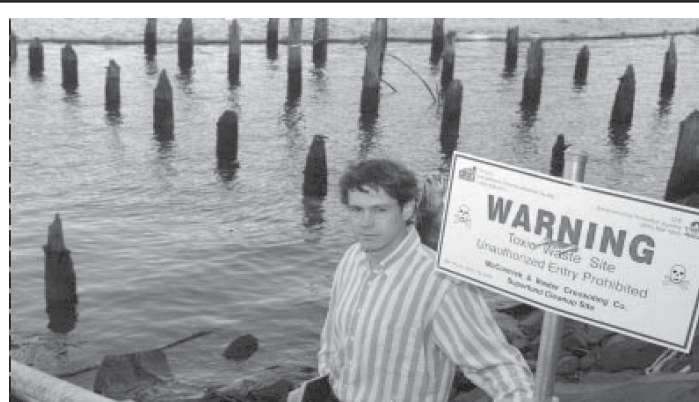
There is no denying the fact that the Portland Harbor has become one of the truly horrific examples of industrial toxic waste. Only three decades ago, the Willamette River and Portland Harbor were featured on the cover of the *National Geographic* magazine as an example of a river brought back from the dead. Unfortunately, since 1972, the harbor has continued to be the victim of massive levels of toxic abuse, and as a result the EPA now lists Portland Harbor as a Superfund site. Although the situation appears bleak, Rhett Lawrence and Oregon State Public Interest Research Group (OSPIRG) are fighting hard to save the harbor, and thanks to the Federal Superfund program they are beginning to have some success.

The Portland Harbor began accumulating toxic waste in the early 20th century. It is comprised of a very large area spanning nearly six miles of the Willamette River from Swan Island almost to the convergence with the Columbia River at Sauvie Island. According to Lawrence, there are roughly 70 potentially responsible parties that have performed many operations, including petroleum product storage, agricultural chemical production and chlorine production. These toxic materials have found a home in the Willamette, on its banks, and in its sediments.

In the 1990s, the Oregon Department of Environmental Quality (DEQ) and EPA conducted sediment studies and found soil in the harbor and its uplands contained high concentrations of contaminants considered dangerously toxic to both animals and humans. This eventually led the EPA to add the Portland Harbor to the NPL in 2000. Currently, the site is undergoing a remedial investigation, and the extent of the contamination is still unknown. However, Lawrence points out that “elevated levels of a number of contaminants are present, including heavy metals, DDT and PCBs.”

The high levels of toxins found in the Portland Harbor are alarming because the area is extensively used for fishing. To

address this issue, the Oregon Department of Human Services has released a fish consumption warning to residents for the entire main stem of the Willamette River. Unfortunately, the fishing warning has not had the deterrent effect that was envisioned, and fishing is still practiced on a regular basis along the Willamette.



“It’s become increasingly apparent that without Superfund, the Portland Harbor would likely have been destined to remain an unfortunate victim of industrial pollution.”

- Rhett Lawrence

Although the site is still in the investigation phase, Lawrence believes the Federal Superfund program has been extremely helpful in setting in motion the cleanup process. He points out that Superfund has compiled a list of potentially responsible parties, and subsequently initiated the remedial investigation. “EPA has done a good job of publicizing the site and the need to get it cleaned up,” Lawrence

adds. He emphasized that Superfund allowed the formation of a Community Advisory Group, which keeps local residents plugged into the cleanup process and possible future actions.

Although the physical cleanup of most of the harbor has not begun, Lawrence and OSPIRG still believe they are making progress. There is a better understanding now of the extent of the toxic abuse that has occurred over the decades, and perhaps more importantly a process set up to define what will be required to clean up the Portland Harbor. It’s become increasingly apparent that without Superfund, the Portland Harbor would likely have been destined to remain an unfortunate victim of industrial pollution. Lawrence emphasizes this notion by stating “it has been a rather slow process so far, but it’s an exceedingly complex site, so that’s to be expected. So far, I think the Superfund process has worked well at this site.” Lawrence also points out that the polluter pays fees are critical to the long term success of Superfund, “OSPIRG has worked for years on getting the polluter pays fees reinstated.”

PENNSYLVANIA

Occidental Chemical Corporation Lower Pottsgrove Township

Superfund Site Remains Tremendous Health Risk

Since 1999, the Alliance for a Clean Environment (ACE) has been fighting to clean up the Occidental Chemical Corporation Superfund site in Lower Pottsgrove. Donna Cuthbert, Vice President of ACE said, "This site has been a Superfund site since 1989, yet very little in the way of actual cleanup has occurred to date." She urged EPA to use its full powers under Superfund to expand and accelerate the cleanup efforts.

The 267-acre Occidental site includes a number of unlined lagoons and landfills that contain large volumes of hazardous waste. The site's extensive contamination is the legacy of more than four decades of disposal and chemical spills by the site's owners, Firestone and now Occidental Chemical. Chemicals including trichloroethylene, vinyl chloride and metals have seeped into the groundwater below the site.

Occidental is bordered on three sides by the Schuylkill River, a source of drinking water for hundreds of thousands of people. The Schuylkill serves as the water supply for two municipal water systems within three miles of Occidental. Two aquifers underlie the site and there are 147 private wells within one mile. Cuthbert noted that "only 25 of 147 wells have been tested and none in the areas where ACE identified illness patterns."

ACE's TAG-funded technical advisor, Dr. Henry Cole, commented that "EPA has taken some good first steps" by requiring Occidental to clean up shallow groundwater contamination resulting from chemical spills. However, he urged EPA to include several unlined landfills in the cleanup. "These unlined landfills contain hazardous chemicals and should have been part of the Superfund site all along." He recommended EPA "take immediate steps to investigate the landfills and take whatever actions are needed to protect groundwater."

At the urging of ACE and their advisor, in 2003 EPA tested several lagoons in the Schuylkill River floodplain for dioxins. The testing revealed significant levels of dioxins that likely resulted from burning PVC materials on the site. For years, ACE urged EPA to remove sludge and dispose it in a secure landfill, and to do comprehensive testing for dioxin - including sediment, fish in the river, the landfills and soils at the site. "However, EPA continues to drag its feet," said Cuthbert.

According to Cuthbert, all sources of contamination in the Pottstown area, including the Occidental site should be cleaned up as rapidly as possible given high rates of illness in the area. "This situation is of tremendous concern, because there are over 31,000 residents and 25 schools within two miles of Occidental." Cuthbert noted that for decades, residents were subjected to thousands of tons of vinyl chloride air emissions from Occidental's stacks. "Now that the plant is closed and the air is cleaner, we need to focus on the remaining hazardous wastes and contaminated groundwater. Getting the toxics out of the ground will prevent new contamination from reaching the ground and surface water."



"Pottstown has had more than its share of environmental insults," said Cuthbert. She noted that according to the state cancer registry, childhood cancer rates are far higher than national and state averages. Learning disabilities in the county were double the state average from 1990 to 2000. Infant and neonatal mortality, cerebro-vascular disease, lower respiratory disease, and malignant tumors were all higher than the state average, and even higher than the rates in Philadelphia or Reading, PA.

Cuthbert pointed out that Superfund plays a vital role in the cleanup process of hazardous waste sites across the nation. She pointed to recent steps by EPA to heed the advice of ACE and urged EPA to continue to expand its cleanup of the site. "We can thank Superfund and TAG for our progress to date and will need in the future to ensure that the site is no longer a threat to our community."

Vieques Citizens Still Fighting World War II In Their Backyards

The end of World War II marked the end of fighting and a victory for the United States, but for the people of Vieques it also marked the beginning of destruction. For more than half a century after the war, the U.S. Navy used the Island of Vieques for bombing practices and other military exercises, creating horrific environmental and health disasters. According to EPA, the eastern end of Vieques was used for all aspects of naval gunfire training, including air-to-ground ordnance delivery and amphibious landings, as well as housing the main base of operations for these Camp Garcia activities. Live ordnance was used for some exercises. Operations on the western end consisted mainly of ammunition loading and storage, and vehicle and facility maintenance, although some training occurred there as well.

“After decades of struggle to stop the bombing and reclaim their lands, the people of Vieques finally succeeded - after a four-year, non-stop campaign of peaceful, non-violent civil disobedience with more than 1,500 arrested - in ending the U.S. military presence,” said Nilda Medina of the Committee for the Rescue and Development of Vieques.

In 2004, Vieques was added to the NPL via the governor of Puerto Rico’s use of the “silver bullet” mechanism. The governor of each state in the U.S. has the authority to designate one site in their jurisdiction to be included in the NPL without having to go through a selections process.

Listed as the Atlantic Fleet Weapons Training Area, the Vieques site includes the Eastern Maneuver Area, former Surface Impact Area, Live Impact Area, and Eastern Conservation Zone on the east end of Vieques. Within the Naval Ammunition Support Detachment on the western end, the facility includes eight areas where the Navy considers the investigations and remediation to be incomplete.

Extensive amounts of unexploded ordnance and remnants of exploded ordnance have been identified in the range areas of Vieques and surrounding waters. Hazardous substances

associated with ordnance use include mercury, lead, copper, magnesium, lithium, perchlorate, TNT and depleted uranium. At Camp Garcia, the hazardous substances also include PCBs, solvents and pesticides.

These hazardous pollutants negatively affected Vieques’ active and growing tourism industry. Both visitors and the 9,300 residents of Vieques access beaches, fisheries and recreational waters that may be impacted by past military training. After the Navy activities ceased, large portions of the impacted areas were set aside as a wildlife refuge, which is home to at least 25 endangered species.

“Since the Navy created the toxic mess, they must pay for its cleanup according to federal regulations,” said Medina, who has been nominated for the 2005 Nobel Peace Prize. Now that Vieques is a Superfund site, the cleanup process should follow the Superfund guidelines.



“The community feels strongly that the EPA does not have the resources - either human or material— to monitor or otherwise supervise the current cleanup process,” said Roberto Rabin.

Photo of CRDV members

On the western end of the island, the remedial investigations were governed by a non-NPL Superfund process, but now on the eastern end, the EPA has been working with the Navy to develop a cleanup plan. As part of this process, EPA claims to have developed a comprehensive public involvement plan, but the community completely disagrees. As evidence, they point to the agency’s recent failure to notify the community about the agency’s plan to resume “bombing” by openly detonating unexploded bombs in the ex-bombing range as part of the “cleanup.” The EPA notified the local governing agencies, but said nothing to the community, who only found out about this plan by reading about it in the local newspapers.

The community feels strongly that the EPA does not have the resources - either human or material - to monitor or otherwise supervise the current cleanup process, said Roberto Rabin, a CRDV member. And, with the cutbacks in the Superfund budget, it’s not clear there’s any help on the way unless the polluter pays tax is reinstated. “We energetically demand the Superfund monies be used to support efforts to monitor the cleanup of U.S. military contamination of Vieques,” said Medina.

RHODE ISLAND

Centredale Manor Restoration Project North Providence, RI

Superfund Site Cleanup Leaves Community Concerned

On the surface, the Centredale Manor Restoration Project looks to have progressed through its cleanup with fewer problems than most Superfund sites. ATSDR conducted a health assessment and provided fact sheets on dioxins. EPA published a human health risk assessment and fenced sites around residences as well as the perimeter to keep people out. The RI Department of Health issued a health advisory against eating anything from the river.

But Eugenia Marks and Jennifer Pereira are concerned that exposures may continue because the steady stream of progress is faltering. “What has not been accomplished is adequate characterization and remediation of downstream contamination after the mill dam collapsed,” they stressed. Marks and Pereira are concerned about exposures downstream where hotspots have been identified, but not fully defined. It’s likely that contamination extended more than a mile downstream, Marks said.

Originally, the site was a mill using waterpower to manufacture woolen fabric. Then Atlantic Chemical Company, Inc. and New England Container Company, Inc. used the site until the 1960s and 1970s, releasing dioxins, PCBs and other volatile organics. They contaminated the tail race of the old mill, river flood plain, and sediments and banks of the next downstream impoundment. When that dam broke in 1991, contaminants were transported further downstream.

The immediate site, which was put on the NPL in 2000, covers 52 acres. Fifty-five gallon drums were shipped from around New England and cleaned at the site. Section 8 housing was built after the chemical factory/barrel cleaning burned, and empty barrels were reported on site. From 1970 to 1986, the RI Department of Environmental Management found nearly 400 drums in various stages of deterioration. Despite this discovery, low income housing for the elderly was allowed, Marks said.

In 1977, the RI Department of Health conducted investigations at the Centredale Manor property in response to complaints of odors and fumes. Approximately 60 55-gallon drums were found on the property in a swampy area near the Woonasquatucket River. A bluish-white smoke was observed in association with an unknown number of ruptured drums, reportedly containing sulfuric acid that threatened the public and wildlife. That same year, Brook Village apartments were opened on the properties of the former plant facilities. Six years later, Centredale Manor apartments were opened adjacent to the former mill’s “tail race” on the same properties.



“What has not been accomplished is adequate characterization and remediation of downstream contamination after the mill dam collapsed,” stressed Eugenia Marks and Jennifer Pereira.

Fish collected in 1996 from the Woonasquatucket River were found to have elevated levels of dioxins, mercury and PCBs. Residents might have been exposed to toxic chemicals after eating fish, playing on sediments exposed by dam failure and gardening on the edge of the river, Pereira said.

To reduce exposure, site cleanup is being addressed in two stages: immediate removal actions and long-term remedial actions. EPA has capped sites near high-rise apartments and required responsible parties to fill and cap the tail race and replace the dam. Hot spots of dioxins were removed from soils and sediments above the dam and the site has been fenced on both sides of the river. Although the age of the case has made identification of responsible parties difficult, EPA issued a Unilateral Administrative Order in 2000 to five companies ordering them to complete time-critical removal actions. All five parties complied with the order.

Despite these many successes, Marks and Pereira are still concerned that below the rebuilt dam, characterization and cleanup is being hampered by the limitations of Superfund. “Health advisories on consumption of aquatic resources continues, but play and boating on downstream impoundment continues also,” they said. To keep the cleanup from being thwarted, their group, Woonasquatucket River Watershed Council, applied for a Technical Assistance Grant in 2005 and are in the process of finding a consultant.

Eugenia Marks
Audubon Society of Rhode Island
Smithfield, RI

Jennifer Pereira
Woonasquatucket River Watershed Council
Providence, RI

SOUTH CAROLINA

Sangamo Weston/Twelve-Mile Creek/Lake Hartwell PCB Contamination Pickens County, South Carolina

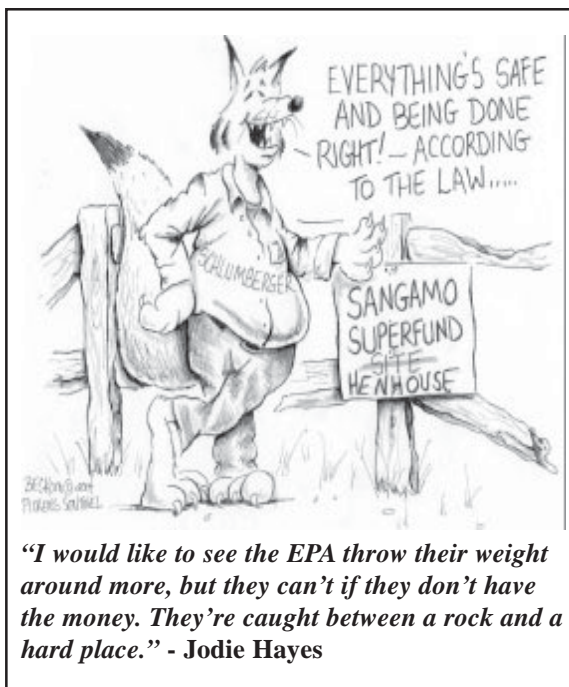
Battle for Cleanup is Long & On-Going

From 1955 to 1978, Sangamo Weston operated a capacitor plant in Pickens using a variety of dielectric fluids containing PCBs. Waste disposal practices included burying capacitors and waste sludge on-site and at six remote locations. In addition, an estimated 400,000 lbs. of PCBs were discharged into Town Creek. A fish consumption advisory for Lake Hartwell due to PCB levels in fish was issued in 1976 and remains in effect.

Because of its size and the extent of contamination, the site was split into two operational units (OUs) when it was added to the NPL in 1990. OU One (OU1) includes unused land across from the plant property and three of six remote properties within a few miles of the plant. OU2 includes the surface water, sediment and “biological migration pathways downstream from source areas.” Although a good deal of the contamination has been cleaned up, town members are still engaged in a battle to get the entire site cleaned up and to ensure that their community is livable and safe.

As a result of a merger, the responsible party for this site is Schlumberger Industries, Inc., who excavated PCB contaminated soil from the plant site and the six remote locations. Approximately 60,000 tons of this soil was treated on-site using thermal desorption from 1995 to 1997. By 1999, EPA considered OU1 to be “construction completed” and decided, “no further activities by responsible parties are appropriate.” They went so far as to say “the remedial activities associated with removing contaminated soil are considered a permanent remedy. No additional treatment of soils within these areas will be necessary.”

Jodie Hayes, a local activist who has been battling this site for many years, has a different view. “We’d all been told that it was clean for so many years,” she said, “but it wasn’t. They can call it final but we’re not done with it.”



“I would like to see the EPA throw their weight around more, but they can’t if they don’t have the money. They’re caught between a rock and a hard place.” - Jodie Hayes

Community health concerns include cancers, birth defects, mental retardations, learning disabilities and asthma. Hayes said although warning signs were put up about the contaminated lake and fish, people felt that they weren’t made aware of the real dangers, and very little was done to address their health concerns. A public education program was initiated in 1998 primarily by issuing 20,000 brochures describing the fish advisory, but Hayes said neither she nor her neighbors heard of any of this at the time.

On the up side, a lot of progress was made in the last year, according to Hayes. Schlumberger has put in additional recovery wells, which “catch some of the groundwater before it goes into the streams, and it is then pumped into a treatment center,” she said. They’ve also cleaned up the hotspots that Hayes brought to their attention. Hayes feels she was able to establish a good working relationship with the EPA and the company. “It was hard to get a hold of a responsible party at first,” she said. “But they don’t like bad publicity.” She bypassed a lot of red tape and went straight to the top, she said, and that’s when things got rolling. “I feel lucky,” she said, “because once we got a hold of Schlumberger, things really changed around.”

One problem Hayes has with the Superfund program is that EPA has to go to the responsible party first to get permission to do any testing or cleanup because they are paying the bills. “If EPA had its own money,” said Hayes, “they could do what they need to do and then collect the costs from the responsible companies.” In regards to the future of Superfund, Hayes feels EPA is weaker without the funding behind it. “I would like to see the EPA throw their weight around more,” she said, “but they can’t if they don’t have the money. They’re caught between a rock and a hard place.”

SOUTH DAKOTA

Gilt Edge Mine Lead, SD

Mine Site Needs Millions For Cleanup But Finds Money Inaccessible

The words that kept rolling off Jack Cole's tongue as he tried to describe the Gilt Edge Mine were, "They're a tragedy. They're a disgrace." Cole, who closed down the mine by taking the company to court, said a century of gold mining has left the community with polluted water and empty pockets.

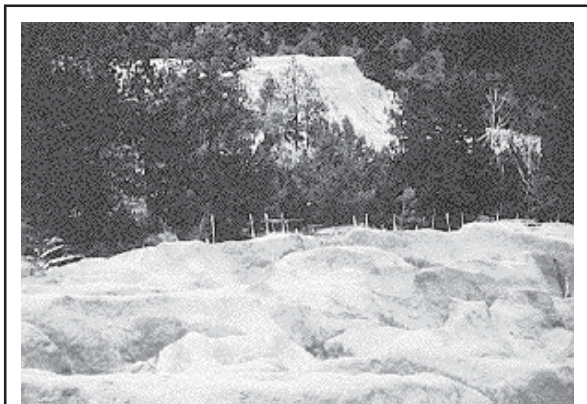
"Our beautiful creeks disappeared," Cole said. "Our goal is to purify the water and we're going to do it." Acid mine drainage from the mine site created sulfuric acid that ate through the limestone in the community's creek bottoms. The creek and the fish have now been replaced with the remnants of a 258-acre open pit, cyanide heap-leach gold mine, developed in sulfide rock material.

More than one hundred years ago, a series of small mines began dumping metal-laden mill tailings into Strawberry Creek and Bear Butte Creeks. According to EPA, the operator went out of business, leaving behind 150 million gallons of acidic, heavy-metal-laden water in three open pits. The mining operations, which started in 1876, also left behind millions of cubic yards of acid-generating waste rock that need cleanup and long-term treatment.

The Brohm Mining Company, one of the companies responsible for the site, developed the three open pits, a large cyanide heap-leach pad, and a 12 million cubic yard valley-fill waste-rock dump under a state mining permit. The waste rock and exposed ore zones contain heavy metals such as arsenic, cadmium, cobalt, copper, lead and zinc. Containment and treatment of site water is necessary, since uncontrolled releases could threaten downstream wells and local water supplies.

Cole said the community is doing some studies now to see if the aquifers 20 miles downstream are polluted. There have been no prior studies to see if people are drinking contaminated water

or are being exposed to toxic chemicals in detriment to their health. "One of the reasons we closed the mine was people were concerned with their water being contaminated," he said. "I think people were exposed, but we still have to do urine tests and blood tests. Water tests are underway."



"Thirty million dollars was spent for cleanup, but the site is not clean and there is still \$50 to 70 million needed." - Jack Cole

Treatment operations had been maintained by the South Dakota Department of Environment and Natural Resources, but in August 2000, operations were turned over to EPA. Earlier that year, the Governor requested that EPA Region 8 propose the site for the NPL and provide emergency response, as well as long-term remedial cleanup. Cole believes this request was put off longer than necessary "We had a crooked governor who retired with eight million dollars in the bank, and we think he got lots of money from these mines," he said.

Cole and Citizens to Restore Bear Butte Creek entered into a contract with EPA when Gilt Edge Mine became a Superfund

site in December 2000. Thirty million dollars was spent for cleanup, but Cole said the site is not clean and there is still \$50-70 million needed.

"Virtually none of these gold mines have been reclaimed," he said. "The land is ugly and useless and the water has gone bad. This is a big challenge to clean them up. We're talking about hundreds of millions of dollars." Hundreds of millions of dollars that Superfund does not currently have, he added.

"In order to get (polluter pay taxes) reinstated, you have to get lobbyists on the Hill in Washington," he stressed. "As long as George the Conqueror is there, it probably won't work, but we still need to try."

Little Community Faces Off with Big Government in Superfund Fight

In 1942, the U.S. Military began dumping their chemical weapons in a region of south-central Memphis that included residential, commercial and industrial areas. More than 150,000 people obtained their drinking water from public wells within four miles of the site. The area became known as the Memphis Defense Depot as residents realized the hazardous effects of living inside the government's garbage dump.

"Chemical weapons, solvents, all types of VOCs, PCBs and over 289 known carcinogens were found on this site," said Doris Bradshaw of the Defense Depot of Memphis, Tennessee. Among the wastes disposed of at the site are oil, grease, paint thinners, methyl bromide, pesticides and cleaning fluids.

The 642-acre site, which was listed on the NPL in 1992, has been around for more than 50 years. It consists of two sections: Dunn Field, an open storage and burial area of about 60 acres, and the Main Installation. The Depot provided material support to all U.S. military services during its operation. These activities resulted in leakage, spillage, disposal of out-of-date materials and regular application of pesticides. According to the EPA, the Army disposed of leaking mustard bombs at Dunn Field in 1946 and contaminated the groundwater with chlorinated solvents and heavy metals.

The Defense Logistics Agency, one of the responsible parties, agreed in 1996 to an interim cleanup to address the groundwater contamination. A barrier well system was installed to prevent migration of contamination. Further plans for excavation, off-site disposal of the wastes and other remedial actions are scheduled to begin in 2005. Land use controls will restrict residential uses of surface areas and groundwater.

Even if you accept that the contamination is being sequestered now, residents were drinking the contaminated water up until 1954, Bradshaw said. They were also exposed to toxic chemicals through open pits that burned waste. "There's a lot of thyroid disease here, which is related to radiation poisoning," she said. "Stomach cancer is the number one problem. We've also had a few 13-year-old ladies getting uterine cancer. There's an issue with reproductive rights." Other health issues include kidney failure and cancer, liver cancer, brain tumors, bladder cancer, brain cancer and colon cancer.

Bradshaw said the ATSDR did a health assessment, but they didn't look at the community, only the workers. The study found that a large number of workers ended up with liver cancer



"They should pay and they should also make sure communities around the site are taken care of. It shouldn't be up to the community to prove anything. It should be up to (polluters) to prove they did not do anything."

- Doris Bradshaw

and unusual brain tumors. "But they couldn't get all the records they needed," she said. "The government stopped the program right in the middle because they said it was too personal." Bradshaw believes they never addressed their health issues. "ATSDR is not a health agency," she said. "People need to stop addressing them as a health agency. They're only a site evaluation agency. They have blinders on when it comes to off-site penetration of waste."

Trouble dealing with the government led the community to steer clear from any other help it was offering. Instead of getting a TAG, the community used their own scientists and technical assistants. "It was a choice we made early on," Bradshaw stressed. "We didn't want government money to fight our own case. The people doing the poisoning become the lead agency for the site and they don't follow the rules."

Although Bradshaw and her group did not want federal money for researching the site and proving their case, they do want polluter pay fees reinstated for Superfund. "I think a polluter should pay regardless if it's Superfund or a federal agency," she emphasized. "They should pay and they should also make sure communities around the site are taken care of. It shouldn't be up to the community to prove anything. It should be up to (polluters) to prove they did not do anything."

**Koppers Co., Inc. (Texarkana Plant)
Texarkana, TX**

Environmental Injustice Abundant in Texas Subdivision Built on Superfund Site

Patsy Oliver, Talmadge Cheatham, Jeter Steger, and the wife and daughter of J.E. Fields all had something in common. They cared about their community. They wanted to take action against the injustices that invaded their homes. The commonality didn't end there, however. These community leaders were all victims of those same injustices they fought against, eventually losing their lives to the widespread dangers of living in the Texarkana region. And these names only represent the tip of the iceberg, said Jim Presley, a member of Friends United for a Safe Environment. "The enumeration of deaths became virtually impossible," Presley said. "There was no central registry or a way to track mortality, and certainly not morbidity."

The reason for this death toll dates back to 1910 when the National Creosote wood treatment plant began operating. In 1960, the plant shut down and the land was sold to businessmen who developed it as the Carver Terrace Subdivision, intended to house middle-class African-Americans. None of the 75 African-American families who eventually lived there was told the site was contaminated, Presley said.

The residents only slowly became aware of the risks associated with their location. Soon pets grew sick and died, vegetable gardens became stunted, strange blackened dirt began to bubble up especially after rains, and eventually residents themselves began to fall sick. "In 1987, some residents who had long experienced health problems, joined together to sue the Koppers Company," said Stella Capek, a sociologist from Hendrix College. "This was the first public 'justice' claim, and it took a legal form."

Though it was not originally responsible for this pollution, Koppers Corporation became the responsible party by virtue of purchasing the site and its assets and liabilities. Creosote and chemicals used in wood treatment were found on site including arsenic, polynuclear aromatic hydrocarbons (PAHs), fluoride compounds and dioxins. Later, several "hot spots" were found in the subdivision.

Community health concerns grew as residents began to exchange notes related to cancer, reproductive problems, childhood disorders, asthma, dermatological conditions and other medical issues. On one block, five of eight houses had people who either had liver, kidney or parathyroid problems, wrote Don Preston, another FUSE member. "These health problems [were] symptomatic with exposure to PAHs, the chemical of main concern at Carver Terrace. This should have been enough to evacuate the whole community, but it wasn't," said Preston.



"Without Federal Superfund, a difficult matter would have been made more difficult. But even with Superfund, it was a major task to get EPA to move along, and that came only with Congressional help and pressure." - James Presley

In 1986, the Carver Terrace Subdivision was added to Superfund. This brought in ATSDR who reported that fish should not be eaten from a nearby stream and noted some of the contaminants could cause serious health effects. No attention was paid to this study until FUSE and the Carver Terrace Community Action Group publicized it, Presley said. "In retrospect, it is evident that although disturbing individual events were taking place, they did not generate social alarm," Capek added.

With the assistance of a number of national environmental organizations, the Carver Terrace story became known regionally and, to some extent, nationally. "For a long time there seemed to be little official federal and state enthusiasm for moving the people out," Presley recalled. "EPA's remedy was soil washing while the residents remained in their homes and on the site." EPA, which earlier had insisted, "We don't do real estate," eventually agreed to a buyout and relocation in the early 1990s. Once the residents were moved out, the site was fenced in and the two entrances/exits to the subdivisions were locked shut.

Presley said Superfund did eventually protect residents from further exposure by buying out the residents and relocating them. "Without Federal Superfund, a difficult matter would have been made more difficult," he said. "But even with Superfund, it was a major task to get EPA to move along, and that came only with Congressional help and pressure. Better and more serious attention to the complaints of citizens could have expedited the process in Carver Terrace."

Superfund Site Languishes on List Due to EPA Inaction

Ivan Weber, who was at the forefront of the battle to cleanup the Kennecott site in Salt Lake County for many years said, “This was a war zone.” Weber shirked the traditional role of a combatant and fought for both sides, blurring the line between the two and making one think twice about their strict separation. The players: Utah environmental coalitions v. Kennecott Utah Copper Corporation. The stakes: a final listing on the NPL, the fate of the Great Salt Lake ecosystem and much of the groundwater in the region.

The site, which is so large it was split into “North” and “South,” was proposed for the NPL in January 1994 and has languished there for more than a decade. In 1995, Kennecott, EPA and Utah signed an agreement, saying EPA would defer final listing if Kennecott continued cleanups.

This proposed Superfund site was created by careless handling of industrial waste and mining activities that began in the 1860s. Mining waste was deposited in creeks and flood plains, resulting in high levels of lead and arsenic throughout the area, posing substantial health threats, the extent of which is unknown and worrisome, says Weber.

Selenium is another contaminant, to which birds are extremely sensitive. Groundwater contamination was traced to an unlined reservoir Kennecott built in 1965. Between one and seven million gallons of extremely acidic, metal-laden waters leaked into the aquifer each day for twenty-five years.

ATSDR conducted extensive risk evaluations, but EPA allowed Kennecott to do its own ecological risk assessment. “This, in my opinion, led to a compromised set of studies and reports, subsequently contributing to the present flaws in groundwater problem resolution,” Weber said.

In 1986, Utah filed a natural resource damage claim. Weber became involved in 1991 by filing an *amicus* brief, on behalf of a coalition including the Utah Sierra Club and the Mineral Policy Center (Earthworks). One year later, Kennecott hired Weber to work on the remediation projects. “I was archivist and report-writer for the cleanup projects and investigatory actions,” he explained. “There were a few key reports and analyses, I’ve learned, to which I was not given access, however, and several critical strategies to which I was not privy, resulting in the regrettable disposition of groundwater treatment concentrates to the Great Salt Lake and Kennecott’s adjacent Tailings Impoundment.”



“The site, which is so large it was split into ‘North’ and ‘South,’ was proposed for the NPL in January 1994 and has languished there for more than a decade.”

-Ivan Weber

This natural resource damage claim was folded into the surface cleanup in a manner that was reprehensible, Weber said. Instead of doing what CERCLA allows, forming a community advisory group and a technical advisory group, EPA and Utah agreed to form only the latter for the South area, with a membership that was heavy with administrative and company representation. “As a Kennecott employee, I made it clear for years that I couldn’t be regarded as a Sierra Club representative, therefore, environmental representation was absent,” Weber emphasized.

Although other companies used the site, Kennecott bears the prime responsibility. Unlike most responsible parties, the company stepped in and did most of the cleanup itself because it was cheaper, Weber said. To date, Kennecott has spent \$290 million, while ARCO has spent \$37 million, according to EPA. More than 25 million tons of mining wastes have been removed.

“Superfund was the Sword of Damocles for all the company’s allegedly ‘voluntary’ cleanup work,” Weber said. “No one should labor under the illusion that \$250-\$300 million would have been spent for site investigation-characterization, source control, cleanup and closure, much less for subsequent land use change planning, had Superfund not been a threat.”

However, Weber believes Superfund failed to withstand the onslaught of the 104th Congress’ attacks, and has inevitably weakened due to lack of funding. “(The attacks) rendered EPA administrators powerless, toothless and gutless in the face of Congressional intervention, stimulated by aggressive company lobbying,” he said. “With Bush in the Whitehouse and former Utah Gov. Mike Leavitt at EPA, Kennecott is one of the most influential corporations in America. Disproportionately so, in fact.”

VERMONT

**Elizabeth Mine
South Strafford, VT**

Community Takes Responsibility for Orphaned Superfund Site

Although the Elizabeth Mine operated for more than 150 years in South Strafford under numerous owners, it is now considered an orphan. Its parent companies are long out of business, including its most recent owner, Appalachian Sulphides, Inc., a subsidiary of Ventures-Nipissing of Canada. The land is now owned by a dozen families that had no role in operating the mine. So now, who's to bear responsibility for the consequences of the mine's operations?

As part of the TP1 stabilization, residents downstream who were threatened by the possible collapse of the pile were notified and given warning beepers EPA was to use in case an emergency evacuation was necessary, Walker said. The stabilization included installing a new drainage system, cutting the top face of TP1 back, building out a buttress at the toe of TP1, vegetating the resulting more shallow slope and installing footing drains under TP1.

The abandoned site was mined from 1806 until 1957 for iron, iron-sulfate and copper. The extractions resulted in three large tailing and waste rock piles containing sulfides and metals that covered about 47 acres. Two open cuts also remain, each about 100 feet deep and 400 feet long, along with thousands of feet of underground tunnels. The high sulphide content is creating acid mine drainage, carrying on average a ton of dissolved metals from the site down Copperas Brook to the West Branch of the Ompompanoosuc River (WBOR) every four to six days. "Copperas Brook is pretty much devoid of all life," Walker said. The impact on the WBOR is also likely to be severe.



"The Elizabeth Mine and hundreds of other Superfund sites around the country will continue polluting the landscape until a funding mechanism to clean the sites up is reestablished." - Bob Walker

Metals exceeding EPA limits in ground and surface waters include aluminum, cobalt, copper, iron, lead and manganese. There are also two areas where lead levels in the soil exceed EPA's human health standards by as much as 1,700 times. Because the responsible parties are long gone, the community of South Strafford had no choice but to seek assistance to clean up this disastrous mess. The Elizabeth mine was added to the NPL in 2001.

The Elizabeth Mine Study Group formed and acquired a TAG to evaluate the EPA's testing and remediation plans, said group member Bob Walker. EPA discovered that Tailing Pile 1 (TP1) was unstable and in danger of collapse, which could have resulted in a major mudslide that threatened 11 homes in the river valley. EPA was able to secure emergency funding to stabilize TP1 and eliminated this threat. EPA also relocated a family after determining that their residential well was polluted.

"However, the areas of lead exceedances in the soil remain a human health threat," Walker stressed. "Currently, those areas are only marked off by yellow warning tape to keep people out. EPA wants to do more but is hamstrung due to lack of funding." In the meantime, snow fencing has been erected around these areas until Superfund funding can be secured to address the contamination.

EPA also thoroughly examined the site to determine the areas of contamination and the sources of pollution. It worked with the Vermont Department of Environmental Conservation and the community to design a cleanup plan to address pollution and local

concerns—health, traffic, dust, care for the historically significant mining site, etc.

"Unfortunately, because there is no longer any responsible party, beyond the landowners who did not cause the problem and do not have the resources to clean it up, and because the Superfund is no longer being funded, there are no funds available to implement the cleanup," Walker said.

The biological damage to Copperas Brook and the WBOR continues and the soil lead contamination continues to be a threat to community members. "The Elizabeth Mine and hundreds of other Superfund sites around the country will continue polluting the landscape until a funding mechanism to clean the sites up is reestablished," he emphasized. "Polluter pay fees are the most logical and fair source of funding."

**Bob Walker * Elizabeth Mine Study Group
Strafford, VT**

Town Next To Toxic Waste Site Has Been Battling For Cleanup For 20 years

The Avtex Fibers site, located along the Shenandoah River in Front Royal, is a 440 acre plant that manufactured rayon and other synthetics from 1940 until 1989. Several companies including FMC operated the plant during this time until it was abandoned by Avtex in 1989. Tons of waste, sludges and fly-ash from boilers were disposed of on-site in 23 impoundments and fill areas encompassing 220 acres. Waste disposal practices contaminated the groundwater under the site and residential wells across the river from the site. Carbon disulfide, phenol, and arsenic were found in residential wells. About 1,300 people within 3 miles of the site rely on well water for drinking. Today, after extensive cleaning, the smell still lingers, and the community still remembers the sickness and loss they experienced.

The health concerns raised by the community were similar to many other toxic waste sites. Site neighbors had higher rates of cancer and birth defects, and people drank unknowingly from contaminated well-water for years, said Norma Landicho, a community leader. Some experienced burning throats and noses, blackened tongues, and asthma. Sometimes it was hard to breathe the air without getting a sore throat, she said. "We were concerned as well about what we grew in our gardens and what we ate from it."

Fighting the government to address these concerns was a frustrating process, to say the least. Landicho mentioned the months of sending emails to the media and the EPA, contacting countless government officials, taking petitions to their Congressman, Frank Wolf, and more. Although ATSDR did meet with the community in 2002, the results were inconclusive, said Landicho. "They told us things like 'sensitive people may experience more symptoms than others,'" she said. Meanwhile, no health advisories or assessments were made public.

Barbara Treash was instrumental in the fight to raise awareness, despite being so sick that she was not mobile. The community also struggled with the stigma of being a Superfund site. Property values dropped in 1995 once cleanup activities began. The responsible parties, led by FMC, focused on public relations to make the property valuable again. It was hard to convince outsiders that there was a problem.

Although the smell still persists and demolition causes ground tremors, community members can feel in their houses that a lot has been cleaned up, says Landicho. "As of 1999," she said,



*"I don't think they spent enough time considering the health and safety of the people living nearby the site."
- Norma Landicho*

"they had removed 2,000 tons of chemicals, treated 241,000 gallons of flammable and acidic chemicals, and 992,000 gallons of wastewater. They had disposed of 900 tons of hazardous and non-hazardous waste, 3,000 bags of asbestos, 775,000 gallons of liquid wastes, scrap metal for recycling, and carbon disulfide containers." They also designed and operated a waste-water treatment system to protect the river, said Landicho.

Reflecting on the positive and negative aspects of working with Superfund, Landicho mentioned that "we did get some say in the process, but I don't think they spent enough time considering the health and safety of the people living near the site." In the end, Landicho feels that it can never be wholly cleaned up. Yet she mentioned plans the town has to build a soccer field, motels, and a park when the cleaning is "finished."

Landicho discussed the need to reinstate the polluter-pay fees. "They've been tapping the taxpayers," she said. "But why should they pay for something they weren't responsible for?"

"I never want to go through it again, said Landicho. "It was an educational experience, she said. "The sad thing is the people in this community trusted the government so blindly." Nowadays they certainly have a better understanding.

WASHINGTON

Commencement Bay Nearshore/Tideflats Tacoma, WA

Remember the Good Old Days? Bay Area Site Has Been Around Since the Beginning

As one of the first sites to be added to the NPL when Superfund was just getting off the ground, the Commencement Bay site has a lot of history. The site, covering 12 square miles in Tacoma is in a heavily industrialized area including a former copper smelter, a pulp mill, and several chemical plants. The site includes more than 300 active businesses, nearly 500 identified point and non-point sources of contamination, and approximately 170 liable parties in the Commencement Bay Superfund problem area. About 50,000 people live near this site.

At Commencement Bay's north end, high levels of arsenic and lead were found in soils in the heavily populated residential area surrounding the former ARSARCO smelter operations, and high levels of arsenic were found in the urine of nearby school children. At the south end, a wide range of chemicals was found in the sediments of the bay's commercial and industrial Tide flats waterways. Although predominantly privately owned, a Port Authority is on-site, and an Indian tribe claims much of the area, according to EPA.

Originally considered to be one site, the Commencement Bay Nearshore Tideflats (CBNT) Superfund problem area was divided into six separate project areas and managed as distinct sites, said Leslie Ann Rose, Senior Policy Analyst at Citizens for a Healthy Bay. Commencement Bay was placed on National Interim List as a candidate site in 1981, and was designated on the NPL in 1983.

In the ASARCO Smelter/Ruston Soils Problem Area, community health concerns mostly centered on the lead and arsenic in the soils. Rose describes the ASARCO Smelter problem area, approximately 1,000 acres in size, "as the legacy of 100 years of copper smelting." In the waterways, 150 years of urban, commercial, and industrial development resulted in approximately 1,581,300 cubic yards of marine sediments contaminated by 70 chemicals including heavy metals, PCBs, dioxins and PAHs. Rose said that "the bioaccumulation of toxics in fish, shellfish, and other aquatic life" were of great concern as communities consumed local seafood.

Actions have been taken to address health concerns. Public Health Advisories were issued and education programs were presented on the consumption of contaminated seafood captured within Commencement Bay/Nearshore environment. She said "a second public education program was led by the Tacoma Pierce County Health Department for those living within the ASARCO/Ruston Soils problem area."



"This was one of the first designated Superfund sites." - Leslie Anne Rose

Citizens for a Healthy Bay were awarded their initial TAG in 1991. Rose said it was used to provide citizen oversight, advocate for permanent solutions, analyze design plans, educate the community, and expand citizen participation. Perhaps most importantly, it was used to work cooperatively with *all* stakeholders, including communities, neighborhoods, PRPs, economic development or business interests, and local, regional, state, and federal agencies.

Today, some of the remedial action is finished, and one of the sites has been delisted. "All but three of the remedial actions have just finished the active remediation portion," said Rose. Soon, they will go into a ten-year monitoring and maintenance activity period to see if the cleanup has worked.

Rose discussed the positive and negative aspects of their experience with Superfund. "It afforded the framework and oversight to remediate a complex site with 70 chemicals of concern and over 160 PRPs," she said. It also worked to their advantage that the site was put on the NPL list just as Superfund was getting started. However, "as the fund dwindled, the process became more difficult," Rose said. "Since the site is still being cleaned, less funding has certainly taken its toll." Hope and support are still high, however. Rose indicated that with reinstatement of polluter pay fees and continued support for the program, this "megasite" might one day be a true success story.

Superfund Saga Ending For Some, Beginning For Others

Cleanup activities are well underway at a Superfund site in Marion County. The contents of the landfills are being excavated and burned in a nearby power plant, away from the private residences surrounding the site. Unfortunately for Cathy and Richard Rodriguez, the power plant is practically in their backyard. "This power plant is being used as an incinerator for a Superfund site," Cathy Rodriguez said. "They just moved the site from one side of the county to the other side."

The Fairmont Coke Works site, now known as the Sharon Steel site, consists of approximately 100 acres of land, 50 of which were used for coke plant operations, waste treatment and disposal practices. Wooded hillside descends into the Monongahela River on the other half of the site. Along with manufactured coke, the site refined coke by-products, including phenol, ammonium sulfate, benzene, coal tar, toluene, xylene and coke oven gas.

The company eventually went bankrupt and the owner left with what money there was, Rodriguez said. Before leaving, in 1990, the owner removed 2.2 million pounds of waste tar from the on-site sludge impoundments which were disposed of at an off-site facility. "Due to the state's dissatisfaction with this action, the West Virginia Division of Environmental Protection (DEP) requested EPA involvement." The EPA came in during 1993 and initiated an Emergency Removal Action, which was finished by the time the site was formally added to the NPL in December 1996.

"They cleaned up the worst of it, and it cost them \$11 million," Rodriguez said. During the removal action, EPA removed and disposed of off-site: 976 tons of coke works sludges; 112,514 gallons of tank liquids; 1,280 cubic yards of process solid wastes; 23 lab packs; 168 cubic yards of asbestos-containing material; 60 pounds of pourable mercury; 221,955 gallons of wastewater; and 34,382 tons of oxidation pond sludges.

Exxon was identified as one of the companies responsible for the site. They set up a proposal to clean the site in half the time, Rodriguez said. This proposal, Project XL, was created by EPA Headquarters to test innovative environmental management strategies for the 21st century and, through this process, foster excellence and leadership in environmental protection, according to EPA. Exxon's proposal was approved, and the Sharon Steel site became the first Superfund site in the country to be cleaned up under Project XL. A Federal judge ruled that Exxon only had to reimburse the EPA \$1.5 million and reimburse the West Virginia DEP \$2 million.

"Sharon Steel site became the first Superfund site in the country to be cleaned up under Project XL. A Federal judge ruled that Exxon only had to reimburse the EPA \$1.5 million and reimburse the West Virginia DEP \$2 million. EPA spent \$11 million from Superfund to clean up the worst of the site."

- Richard Rodriguez

"(Exxon) included a group of citizens and business people from the area," Rodriguez explained. "They held monthly meetings to update the citizens as to the progress. We came in when we found out that Exxon wanted to take some of the refuse and bring it to the power plant at Grant Town." This power plant is a co-generating plant that gets special tax breaks from the government. According to EPA, Kipin Industries, Inc. is

excavating and processing the contents of the North and South Landfills to produce a non-hazardous artificial coal product that is being burned as fuel in the plant.

But Rodriguez believes this data is incorrect, and it wouldn't be the first time EPA produced misleading information to clamp down on costs because of low funding. "As of this date they are still cleaning up the site and sending hazardous material to the Grant Town Power Plant," she stressed. "We are not even attending the meetings anymore because we felt it was a waste of our time." In addition, there is another Superfund site in Morgantown, West Virginia that is sending material to the power plant.

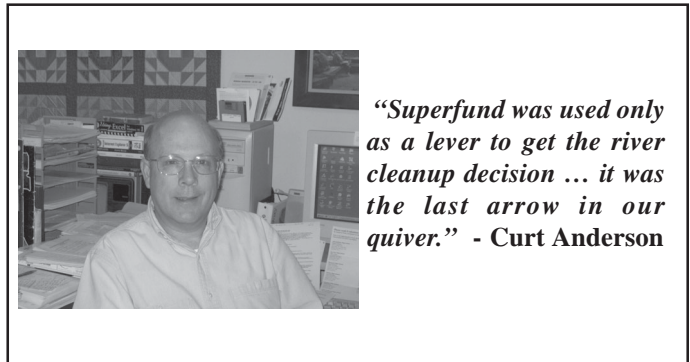
Proposed Superfund Site Blocked By Government Interference

The Fox River is not a Superfund site, even though there are 270,000 people residing in communities along the river, which has become contaminated with PCBs and is considered to have the highest concentration of paper mills in the world. The site was proposed to the NPL on July 28, 1998, but there's little hope for its finalization. "(The site) was blocked in 1998," said Curt Andersen, a member of Clean Water Action Council (CWAC). "The government at all levels tried to shield the paper industry from blame."

The site was created over a span of about 40 years by seven papermills along the river. Between 1957 and 1971, PCBs were used in manufacturing carbonless copy paper. The greatest discharges were from facilities that de-inked and re-pulped this paper. The companies responsible for the pollution include Fort Howard Paper (now Georgia-Pacific), Appleton Papers, NCR, P.H. Glatfelter, Riverside Paper Co., US Paper Mills (now Sonoco) and Wisconsin Tissue Mills.

The entire site is about 28 miles of river. PCBs have been detected in both surface water and sediment samples throughout the lower Fox River and Green Bay. PCBs were initially detected in samples of fish tissue collected in 1976. "There are fish advisories all along the Fox River, but even those took enormous pressure to be put in place," Andersen said. However, "the damage was so great that public pressure overcame (government) concerns that the mills would leave the area. The mills regularly threatened to leave, but then other mills have closed, leaving thousands out of work, and these were mills not involved in the dumping of PCBs, so government officials became weary of the threats."

Fish advisories are posted in English, Spanish and in pictographs, to aid the Hmong immigrants who live in the area and have no written language. These people are traditional fishermen who feed their catch to their families. They do not like welfare and prefer to provide for themselves. "The community is well aware of the toxic quality of the water and fish," Andersen said. "Tourism is on the bottom rung here because of fears about the water pollution in the river and bay." However, a large percentage of those who are aware of the advisory continue to consume fish on a subsistence basis and are greatly exposed to the PCBs. Also, exposure comes from inhalation of PCB molecules that evaporate from the river.



Andersen said CWAC got three TAGs for their work. "We were able to use the grant monies for public education, to hire toxicologists and other scientists and researchers," he said. Unfortunately, no Record of Decision was ever made for the site because state, county and local governments were concerned that a Superfund designation would smear the community, he emphasized.

"We countered that a recognition of a problem and a Superfund designation were critical to get outside interests to consider the Fox Valley as a good place to live or own a business," Andersen said. "Superfund was used only as a lever to get the river cleanup decision ... it was the last arrow in our quiver."

Andersen believes the reasons why the site is not likely to be finalized include the lack of clout by EPA, the political interference by the paper industry and their allies in the timber business and other business groups, and legislators without ethics. "We had Toxic Tommy Thompson as governor for 14 years, then pseudo-Democrat Jim Doyle, who seemed in great pain having to sign the agreement to clean the river," he recalled.

Reinstating polluter pays taxes, Andersen said, would likely strengthen the Superfund program, and more funding would put emphasis on finalizing sites that have been sitting on the proposed list for years. "If not for polluter pays taxes, the cost must be borne by taxpayers, who are saddled with enough responsibility for other corporate malfeasance," he said.

Casper Woman Brings Superfund to Wyoming Community

Linda Baker had a test done and found out her well water was contaminated by manmade solvents such as trichloroethylene (TCE) and perchloroethylene (PCE). She knew there were reports of other problems in her subdivision so she decided to take action and alert the authorities. Before the government would take action, EPA and DEQ told Baker she would have to pick another site for them to test to determine if her well was a fluke or if there really was cause for action.

“I had done a lot of self teaching, and I determined (another site) through groundwater flow,” she said. “And they found benzene and acetone in that well.”

Baker’s well and her strategic planning became the cause for Superfund action. In 1990, the Mystery Bridge Rd/Highway 20 site, also known as Brookhurst, became one of only three Superfund sites in Wyoming. The residents were at first concerned that Superfund couldn’t get involved because so many oil refineries were implicated, and Superfund had a petroleum exclusion. However, Baker said, action can be taken if at least 25 people are on one water source.

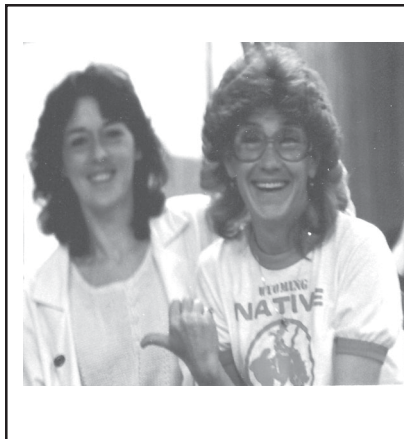
“We have a small community with about 100 homes - many missing now,” she said. “We were all on groundwater wells. To our south and west are sources that were contributing to the groundwater, air and soil contamination.”

This contamination came from two primary sources, a Dow Chemical oil field service area and a natural-gas processing facility operated by Kinder Morgan (formerly KN Energy). An unlined waste pond on the Kinder Morgan site was used from 1965 until 1984. Residents originally discovered the contamination in 1986. Several months later, EPA came in after the Governor declared Mystery Bridge the number one priority site in Wyoming.

EPA tested the entire community and concluded that every private well was unsafe, Baker said. Many of the homes affected were in the Brookhurst Subdivision, which was developed in the mid-

1970s. But EPA never condemned the wells. “They came in and tried to fool us and tell us they only found a few that were dirty, and they were coming from the area where there are very small polluters,” she said. “And I was looking at Dow Chemical and thinking, ‘Oh, the wells are clean there?’”

EPA’s response was to hook the community up to the Evansville municipal drinking-water system. Kinder Morgan addressed the soil contamination by excavating the soil and treating it using a soil-vapor extraction system. The company also pumped and treated the groundwater to remove the BETX contamination until the water had met the specified cleanup levels. “They thought once you have the water system cleared up, it doesn’t matter if the air or soil are still contaminated,” Baker emphasized. “But, (Evansville) was even more contaminated than Brookhurst.



“One of the reasons no one knew about the problems was because you don’t talk to your neighbors about how your kid is in the slow class. But everyone’s kid is in the slow class.”

-Linda Baker

The contamination led to multiple illnesses in the neighborhood, including heart, kidney and liver problems. Baker said the most emotional issues were babies born like mutants, cervical cancers in young woman and kids with epilepsy. “One of the reasons no one knew about the problems was because you don’t talk to your neighbors about how your kid is in the slow class,” she said. “But everyone’s kid is in the slow class.” These mothers and other community members joined to sue 20 defendants for health problems, emotional distress and property loss. The case settled, but the area never saw any money for cleanup.

Baker believes Superfund has the capability of doing a lot of good but it lets the polluter get in the way. Furthermore, there are no criminal sanctions for the polluters. Only one of several polluting companies had to pay a fine, she said, and it was only for one day out of hundreds of days it broke environmental laws. “There is no way that innocent citizens should be paying any kind of tax for something they didn’t do and let a polluter get away with it,” she said.