The Toll of SUPERFUND NEGLECT

Toxic Waste Dumps & Communities at Risk

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Center for American Progress

CPR CENTER FOR PROGRESSIVE REFORM

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Contents

Executive Summary

Twenty-six years ago, just as President Ronald Reagan took office, Congress created the "Superfund," a multi-billion dollar environmental program designed to inventory and clean up the nation's worst abandoned toxic waste sites, beginning with the infamous Love Canal. Today, the Superfund National Priorities List (NPL) includes 1,244 sites awaiting cleanup. Many have languished on the list for well over a decade and some have awaited cleanup for almost a quarter century, as lack of resources, industry opposition, technical challenges and mismanagement plagued the program.

Superfund's plight threatens public health across the country. One in four Americans live within three miles of a Superfund site,[1] and approximately three to four million children, who face developmental risks from exposure to environmental contaminants, live within one mile.[2]

Over the last decade, cleanups have slowed to a crawl because the program lost its stable "polluter pays" funding base in 1995. A series of Republican-controlled Congresses allowed the industry taxes that support the program to expire and ignored yearly requests by the Clinton administration to reinstate them.

When President George W. Bush took office, the principle that polluters need not pay went from de facto to official public policy. The largest beneficiaries of this policy are oil and petrochemical companies whose record profits and outsized CEO compensation packages are front-page news nationwide (see Figure 4 on page 19). In addition to the "pain at the pump" caused by high gas prices, the American people are hurting from tax policy that places the interests of wealthy corporations over public health.

In the absence of political commitment and resources, the number of completed Superfund cleanups fell abruptly in 2001 to 50 percent of previous annual totals. Cleanups were completed at just 40 sites in each of the last three years, as shown in Figure 1.

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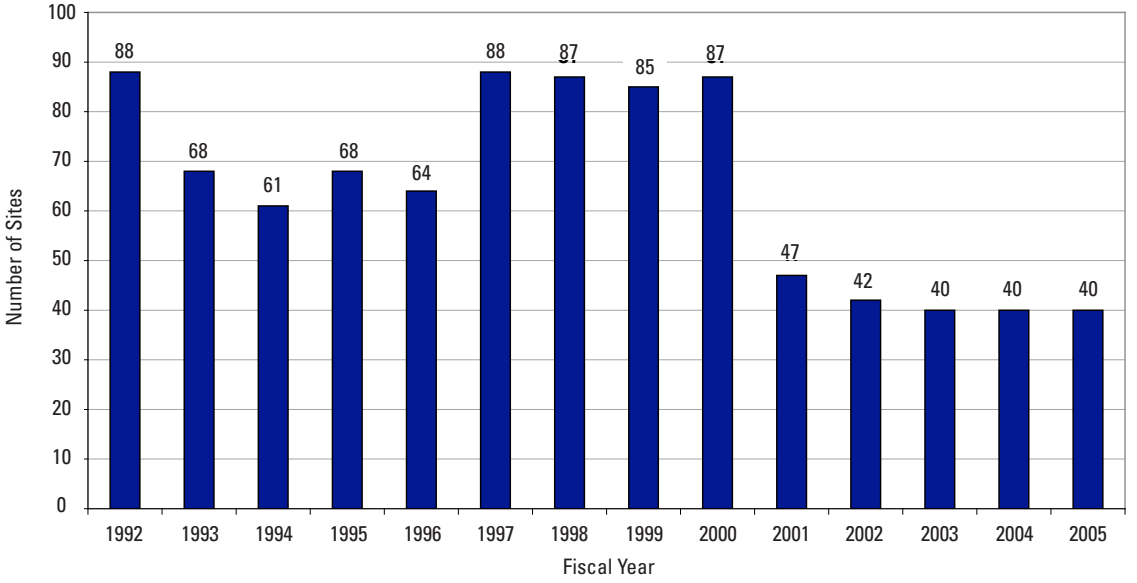
[1] U.S. Envtl. Prot. Agency, *Superfund's 25th Anniversary: Capturing the Past, Charting the Future, available at* http://www.epa.gov/superfund/25anniversary/ (last visited March 23, 2006) [hereinafter, EPA, *Superfund's 25th Anniversary*].

[2] Martina E. Cartwright, *Superfund: It's No Longer Super and It Isn't Much of a Fund*, 18 Tul. Envtl. L. J. 299, 318 (2005) (citing Philip Landrigan *et al*., *Chemical Wastes, Children's Health, and the Superfund Basic Research Program*, 107 Envtl. Health Perspectives 423, 423 (1999)).

Figure 1: Annual Superfund Cleanups[3]

Construction Completions by Fiscal Year, 1992-2005



To explain the human and environmental implications of this Superfund neglect, this report spotlights five of the worst NPL sites in each of the 10 most populous states: California, Texas, New York, Florida, Illinois, Pennsylvania, Ohio, Michigan, New Jersey and Georgia.[4] As of April 2006, none of these sites had completed the cleanup process.[5] Detailed information on the 50 sites, the types of communities where they are located and the people who live near them is presented in the second portion of this report, starting on page 29. Looking across these examples produces the following observations:

[3] Data for Figure 1 obtained from U.S. ENVTL. PROT. AGENCY, *Number of NPL Site Actions and Milestones by Fiscal Year*, *available at* http://www.epa.gov/superfund/sites/query/queryhtm.nplfy.htm (last visited March 28, 2006) [hereinafter, EPA, *NPL Milestones by FY*].

[4] UNITED STATES CENSUS BUREAU, *Census 2000 PHC-T-2. Ranking Tables for States: 1990 and 2000: Table 1. States Ranked by Population: 2000*, *available at*: http://www.census.gov/population/cen2000/phc-t2/tab01.pdf (last visited April 11, 2006) [hereinafter, CENSUS, *Ranking Tables*].

[5] Construction complete status last verified April 13, 2006. For more detailed information on the significance of the "construction complete" designation, *see infra* notes 20-21 and accompanying text.

- **The 50 profiled sites are among the most hazardous in the nation.** The substances disposed at these sites can cause everything from cancer to birth defects to brain damage. EPA calculates a hazard score, on a scale of 0 to 100, to determine whether to add a site to the NPL. To qualify for an NPL listing, a site must have a score of 28.5 or higher. The 50 sites profiled in this report were assigned scores ranging from 42.24 to 74.86, placing them among the most dangerous sites to human health and the environment.

- **These sites contain an array of hazardous substances.** The 10 most common contaminants at the 50 sites include polychlorinated biphenyls (PCBs), lead, polycyclic aromatic hydrocarbons, chromium, copper, zinc, cadmium, arsenic, mercury and trichloroethylene. Some sites contain extraordinarily toxic chemicals, some of which (e.g., creosote and lead) are now banned for most purposes. Most often, these chemicals are invisible, tasteless and odorless, giving little warning when they are present in drinking water, the air or soil.

- **Large numbers of people, including children and the elderly, live near these sites.** Most of the 50 profiled sites are located in heavily populated urban or suburban neighborhoods. According to EPA, between 205,349 and 803,100 people live within one mile of these sites.[6] As of 2000, some 235,000 people lived in the census tracts where they are located, including 34,127 children aged nine and younger and 14,068 persons aged 75 and older.

- **Lower-income Americans disproportionately reside around these sites.** In stark contrast to the wealthy corporate beneficiaries of the Superfund tax windfall detailed in this report, residents of 30 of the 50 census tracts reported a median household income for 1999 (the most recent tabulation of data available at the tract level, for Census 2000) below that of the nation as a whole, that is, below $41,994.[7] Nonetheless, a significant number of sites are surrounded by middle income or even wealthy populations, testifying to the fact that Superfund sites endanger a wide variety of communities.

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[6] EPA's Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) provides ranges for the number of people living within 1 mile of NPL sites. Information for specific sites can be accessed through CERCLIS online, *available at* http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm.

[7] United States Census Bureau, *Census 2000 Demographic Profile Highlights*, *available at* http://factfinder.census.gov/servlet/SAFFFacts?_submenuId=factsheet_1&_sse=on (last visited April 28, 2006) [hereinafter, Census, *2000 Highlights*].

- **People of color were disproportionately represented around a significant number of sites.** Thirteen of the profiled sites are located in census tracts where the population is at least 40 percent racial or ethnic minority, including four sites where the percentage is greater than 70. These findings are not the product of a statistically valid examination of Superfund sites on the whole, and the 50 sites profiled in this report make clear that Superfund sites endanger communities of all types. However, on a site-specific basis, these findings echo concerns long expressed by scholars and other commentators that hazardous waste sites disproportionately affect minority and low-income populations.

- **These sites have awaited cleanup for many years.** The 50 profiled sites were used by manufacturers to dispose of liquid and solid toxic wastes for many decades. Some sites date back as far as the turn of the last century. They have been included on the NPL for long periods of time, with the oldest having been listed on the very first NPL in 1983,[8] and the most recent listed in 2001, at the same time that annual construction completions dropped by half.

- **A number of sites remain in Superfund limbo.** Some of the sites, although proposed to the NPL between five and 13 years ago, remain in "proposed" status, meaning they are ineligible for long-term federal "remedial action" funding and are not a priority for enforcement actions that would compel responsible parties to clean them up.[9]

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[8] EPA published the first NPL, containing 406 sites, on Sept. 8, 1983. 48 Fed. Reg. 40658 (Sept. 8, 1983). Eight of the 50 sites profiled in this report were on that first NPL: Aerojet General (CA); Iron Mountain Mine (CA); Stringfellow (CA); American Creosote Works (Pensacola Pit) (FL); Reeves Southeast Galvanizing Corp. (FL); Nease Chemical (OH); CPS/Madison Industries (NJ); and Universal Oil Products (Chemical Division).

[9] EPA classifies some of the proposed NPL sites profiled in this report (specifically, Normandy Park Apartments (FL), Circle Smelting Corp. (IL), Dover Chemical Corp. (OH) and Terry Creek Dredge/Spoil Areas/Hercules Outfall (GA)) as "NPL-equivalent sites." Katherine N. Probst, *et al*., *Appendix B FY 2000 Status of 52 Sites Proposed to the NPL as of the End of FY 1999* in SUPERFUND'S FUTURE: WHAT WILL IT COST? A REPORT TO CONGRESS, 165-167 (2001) (data provided to RFF by EPA) [hereinafter, Probst, *et al*., SUPERFUND'S FUTURE]. EPA defines NPL-equivalent sites as those at which responsible parties perform cleanup under EPA enforcement authority and with EPA oversight, but without being listed as final on the NPL. *Id*. at 40. For more information on how EPA classified the sites that were proposed to (but not made "final" on) the NPL prior to RFF's 2001 analysis, *see id*. at 165-167. Additional information concerning the status of the proposed NPL sites may be available in the site descriptions maintained by their respective EPA regional offices, *available at* http://www.epa.gov/superfund/sites/npl/npl.htm (click on state of interest, then follow site name hyperlinks).

- **Some of the sites that have waited longest for cleanup are owned by viable, profitable companies.** Sites sometimes lack a "responsible party"; for example, the company responsible for contamination may be out of business. These sites are to be cleaned up using Superfund dollars. Where there is a responsible party, the company is supposed to pay for cleanup. Yet in a number of cases, sites have languished on the NPL even though a responsible party has been identified. This includes, for example, a New Jersey site owned by Honeywell, which in 2005 ranked number 75 on the Fortune 500, with profits topping $1.2 billion. This site was among the first Superfund sites listed in 1983, but still has not been cleaned up.

At many Superfund sites, cosmetic changes have been made — rusting barrels have been removed from the surface, and vegetation has reemerged on what were moonscapes 20 years ago. Beneath the surface, though, the toxic stews continue to circulate, moldering and spreading, adding chemicals to aquifers, rising to the surface of the soil as the land freezes and thaws, and releasing methane and other volatile gases. The senior federal officials now responsible for the program provide political spin instead of solutions. They tell us that Superfund does not need the tax money it was intended to have, and that the popular "polluter pays" principle still applies even though the tax on oil and chemical companies has expired. There is no better way to illustrate the bankruptcy of such claims than to get back to basics and look at the nation's worst sites, the dangers they pose and the paralyzed cleanup response.

Vulnerable Populations

The arguments over facts and figures related to financing Superfund reverberate outside Washington and throughout the country, where NPL sites stagnate and pose continuing risks to human health and the environment.[10] In observing the 25th anniversary of the Superfund law in December 2005, EPA reminded the public that, "even today, 1 in 4 Americans live within 3 miles of a Superfund site."[11] Approximately three to four million children live within one mile of a Superfund site, and due to their unique physical susceptibilities, are at greater risk to the effects of exposure from environmental contaminants.[12]

Among those at risk from the NPL sites around the country that still await cleanup are the people living near the 50 sites profiled in this report. Specifically, the report highlights five sites in each of the top 10 most populous states: California, Texas, New York, Florida, Illinois, Pennsylvania, Ohio, Michigan, New Jersey and Georgia (ranked by size of population).[13]

As of the 2000 Census (the most recent tabulation of data available at the census tract level), 234,524 people lived in the census tracts containing one of the 50 profiled sites. Of those, 34,127 are children aged nine and younger. An additional 14,068 are persons aged 75 and older. In 30 of the 50 census tracts (60 percent of tracts), the median household income for 1999 (again, the most recent tabulation of data available at the census tract level) was below that for the nation, that is, below $41,994.[14]

This report also provides the percentage of "minority" (that is, the percentage not classified as "one race, white") and "Hispanic" populations around each of the 50 sites. The Census Bureau considered race and Hispanic origin to be "two separate and distinct concepts" for the 2000 census (as explained further in Appendix B). Thirteen of the profiled sites are located in census tracts where the population is at least 40 percent racial minority or Hispanic, including four sites where the percentage is greater than 70.

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[10] Cartwright, *supra* note 2, at 318 (explaining that, "EPA's existing backlog, combined with the emergence of additional sites, prolongs the health risks currently borne by communities adjacent to Superfund sites").

[11] EPA, *Superfund's 25th Anniversary*, *supra* note 1.

[12] Cartwright, *supra* note 2 (citing Philip Landrigan *et al*., *Chemical Wastes, Children's Health, and the Superfund Basic Research Program*, 107 Envtl. Health Perspectives 423, 423 (1999)).

[13] Census. *Ranking Tables*, *supra* note 4.

[14] Census, *2000 Highlights*, *supra* note 7.

Figure 2: Profiled Sites

STATE	SITE NAME	HRS SCORE	DATE ADDED TO THE NPL
California	• Aerojet General Corp.	54.63	Sept. 8, 1983
	• Iron Mountain Mine	56.16	Sept. 8, 1983
	• McCormick & Baxter Creosoting	74.86	Oct. 14, 1992
	• Operating Industries Landfill	57.22	June 10, 1986
	• Stringfellow	61.4	Sept. 8, 1983
Texas	• ALCOA (Point Comfort)/Lavaca Bay	50	Feb. 23, 1994
	• Gulfco Marine Maintenance	50	April 30, 2003
	• Jasper Creosoting Company Inc.	50	July 28, 1998
	• R&H Oil/Tropicana	50	Proposed on June 14, 2001
	• Star Lake Canal	50	July 27, 2000
New York	• Computer Circuits	50	May 10, 1999
	• Consolidated Iron & Metal	50	June 14, 2001
	• Lawrence Aviation Industries, Inc.	50	Feb. 4, 2000
	• Liberty Industrial Finishing	50.65	June 10, 1986
	• Old Roosevelt Field Contaminated GW Area	50	May 11, 2000
Florida	• American Creosote Works (Pensacola Pit)	58.41	Sept. 8, 1983
	• Escambia Wood – Pensacola	50	Dec. 16, 1994
	• Normandy Park Apartments	49.98	Proposed on Feb. 13, 1995
	• Reeves Southeast Galvanizing Corp.	58.75	Sept. 8, 1983
	• Stauffer Chemical Corp. (Tarpon Springs)	50	May 31, 1994
Illinois	• Circle Smelting Corp.	70.71	Proposed on June 17, 1996
	• DePue/New Jersey Zinc/Mobil Chem Corp.	70.71	May 10, 1999
	• Indian Refinery – Texaco Lawrenceville	56.67	Dec. 1, 2000
	• Parsons Casket Hardware Co.	55.58	July 22, 1987
	• Sauget Area 1	61.85	Proposed on Sept. 13, 2001
Pennsylvania	• East Tenth Street	67.68	Proposed on Jan. 18, 1994
	• Lower Darby Creek Area	50	June 14, 2001
	• Sharon Steel (Farrell Works Disp. Area)	50	July 28, 1998
	• UGI Columbia Gas Plant	50.78	May 31, 1994
	• Watson Johnson Landfill	71	Sept. 13, 2001
Ohio	• Armco, Inc., Hamilton Plant	69.34	Proposed on April 30, 2003
	• Diamond Shamrock Corp. (Painesville Wks)	50	Proposed on May 10, 1993
	• Dover Chemical Corp.	50	Proposed on May 10, 1993
	• Nease Chemical	47.19	Sept. 8, 1983
	• North Sanitary Landfill	50	May 31, 1994
Michigan	• Barrels, Inc.	42.24	Oct. 4, 1989
	• Bay City Middlegrounds	50	Proposed on Feb. 13, 1995
	• Bofors Nobel, Inc.	53.42	March 31, 1989
	• Rockwell International Corp.	52.15	July 22, 1987
	• State Disposal Landfill, Inc.	42.24	Feb. 21, 1990
New Jersey	• Cornell Dubilier Electronics, Inc.	50.27	July 28, 1998
	• CPS/Madison Industries	69.73	Sept. 8, 1983
	• Universal Oil Products (Chemical Division)	54.63	Sept. 8, 1983
	• Ventron/Velsicol	51.38	Sept. 21, 1984
	• Vineland Chemical Co., Inc.	59.16	Sept. 21, 1984
Georgia	• Brunswick Wood Preserving	54.49	April 1, 1997
	• Camilla Wood Preserving Company	50	July 28, 1998
	• LCP Chemicals Georgia	60.14	June 17, 1996
	• Terry Creek Drdge Spoil Areas/Herc. Outfall	50.18	Proposed on April 1, 1997
	• Woolfolk Chemical Works, Inc.	42.24	Aug. 30, 1990

These findings are not the product of a statistically valid examination of Superfund sites on the whole, and the 50 sites profiled in this report make clear that Superfund sites endanger communities of all types. However, on a site-specific basis, these findings echo concerns long expressed by scholars and other commentators that hazardous waste sites disproportionately affect minority and low-income populations.

Detailed information on the 50 sites and the people who live near them is presented in the state-specific sections set forth in the next part of this report, beginning on page 29.

Health Risks

To qualify for listing on the NPL, a site must have a Hazard Ranking System (HRS) score of 28.5 or higher. As shown in Figure 2, the 50 sites profiled in this report were assigned scores ranging from 42.24 to 74.86, placing them among the worst of the worst, yet most have nonetheless languished on the NPL for many years. HRS scores depend on a variety of factors that reflect the dangers posed by the sites, including:

- quantity of toxic chemicals dumped at the site;
- toxicity of the chemicals with respect to both human and animal exposures;
- people potentially exposed to these hazards;
- environmental loss caused by the site (e.g., loss of underground drinking water supplies, destruction of fishing beds or other fragile ecosystems); and
- pathways by which people and the environment are directly exposed (e.g., contamination of water, land, or air).[15]

The disposal practices utilized at the 50 sites profiled in this report resulted in toxic mixtures of hazardous substances that individually cause everything from cancer to birth defects to brain damage when they seep into drinking water, are emitted into the air, or lace the soil on the sites and in surrounding communities. The 10 most common contaminants at the 50 sites profiled in this report include polychlorinated biphenyls (PCBs), lead, polycyclic aromatic hydrocarbons, chromium, copper, zinc, cadmium, arsenic, mercury and trichloroethylene. Most often, these chemicals are invisible, tasteless and odorless, giving little warning when they are present in amounts far above what is safe, for people and for wildlife. Details on the health risks posed by these contaminants are set forth in Figure 3.[16]

As bad as exposure to individual chemicals can be, their effects when they interact with each other have yet to be documented. Equally troubling, Superfund sites represent just one of the many sources of environmental contaminants present in surrounding communities. Once again, our understanding of the cumulative effects of such exposures is preliminary at best.

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[15] For more information on the HRS, *see* Envtl. Prot. Agency, Appendix A to Part 300—The Hazard Ranking System, 40 C.F.R. Pt. 300, App. A.

[16] Information concerning health effects of exposure is drawn (and additional information may be obtained) from the Agency for Toxic Substances and Disease Registry's (ATSDR) *Frequently Asked Questions about Contaminants Found at Hazardous Waste Sites* (ToxFAQs). As noted by ATSDR in the preface to each of its ToxFAQs summaries, "[t]he effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present." United States Agency for Toxic Substances and Disease Registry, *Frequently Asked Questions About Contaminants Found at Hazardous Waste Sites*, *available at* http://www.atsdr.cdc.gov/toxfaq.html (information on individual contaminants may be located by searching by initial letter in name).

Figure 3: Five Contaminants Found Most Frequently at the 50 Profiled Sites

Contaminant	Profiled sites where found	Health effects of exposure
Polychlorinated Biphenyls (PCBs)	• Stringfellow (CA) • Star Lake Canal (TX) • Consolidated Iron & Metal (NY) • Sauget Area 1 (IL) • Watson Johnson Landfill (PA) • East 10th Street (PA) • Lower Darby Creek (PA) • Sharon Steel (Farrell Wks Disp Area) (PA) • Armco, Inc., Hamilton Plant (OH) • North Sanitary Landfill (OH) • Rockwell International (MI) • Bay City Middlegrounds (MI) • Barrels, Inc. (MI) • Universal Oil Products (Chemical Division) (NJ) • Cornell Dubilier Electronics (NJ) • LCP Chemicals Georgia (GA)	• Skin conditions such as acne and rashes • Liver damage
Lead	• Aerojet General (CA) • Stauffer Chemical (Tarpon Springs) (FL) • Normandy Park Apartments (FL) • DePue/New Jersey Zinc (IL) • Circle Smelting (IL) • Sauget Area 1 (IL) • North Sanitary Landfill (OH) • Barrels, Inc. (MI) • State Disposal Landfill, Inc. (MI) • Universal Oil Products (Chemical Division) (NJ) • CPS/Madison Industries (NJ)	• Decreased function of nervous system • Increases in blood pressure • Anemia • Brain and/or kidney damage • In pregnant women, can cause miscarriages
Polycyclic Aromatic Hydrocarbons (PAHs)	• McCormick & Baxter Creosoting (CA) • ALCOA (Point Comfort)/Lavaca Bay (TX) • Jasper Creosoting (TX) • Star Lake Canal (TX) • American Creosote Works (Pensacola Pit) (FL) • Stauffer Chemical (Tarpon Springs) (FL) • Sauget Area 1 (IL) • Indian Refinery – Texaco Lawrenceville (IL) • UGI Columbia Gas Plant (PA) • Sharon Steel (Farrell Wks Disp Area) (PA) • Camilla Wood Preserving (GA)	• Animal studies indicate potential for reproductive difficulties and birth defects; "it is not known whether these effects occur in people"
Chromium	• Stringfellow (CA) • Iron Mountain Mine (CA) • Aerojet General (CA) • Star Lake Canal (TX) • Liberty Industrial Finishing (NY) • Stauffer Chemical (Tarpon Springs) (FL) • Armco, Inc., Hamilton Plant (OH) • Diamond Shamrock Corp (Painesville Works) (OH) • State Disposal Landfill, Inc. (MI) • Brunswick Wood Preserving (GA	• Breathing large amounts of chromium (VI) can cause irritation to the nose • Ingesting large amounts of chromium (VI) can cause stomach upsets, ulcers, convulsions, kidney and liver damage and even death • Skin contact with chromium (VI) compounds can cause skin ulcers
Copper	• Iron Mountain Mine (CA) • Aerojet General (CA) • Star Lake Canal (TX) • Stauffer Chemical Co. (Tarpon Springs) (FL) • Circle Smelting (IL) • Sauget Area 1 (IL) • Parsons Casket Hardware (IL) • State Disposal Landfill, Inc. (MI) • CPS/Madison Industries (NJ) • Brunswick Wood Preserving (GA)	• Breathing high levels can cause nose and throat irritation • Ingesting high levels can cause nausea, vomiting and diarrhea • Very high doses can cause liver and kidney damage and can even cause death

Lagging Cleanups

Once a site requires no additional cleanup activities, it may be deleted from the NPL.[17] Of the 1,553 sites that had been added to the NPL as of April 2006, only 309, or 20 percent, had been deleted.[18] According to EPA, however, measuring success by simply looking at the ratio of deleted NPL sites to total sites on the NPL fails to "recognize the substantial construction and reduction of risk to human health and the environment that has occurred at NPL sites not yet eligible for deletion."[19] So, in 1990, to "communicate more clearly to the public the status of cleanup progress" among NPL sites, EPA established the new category of "construction complete" as its main indicator of program success.[20] Sites are considered "construction complete" when any necessary physical construction and engineering work is complete, even if final cleanup goals have not been achieved.[21] In addition to the sites deleted from the NPL, another 600 or so have achieved the "construction complete" designation.[22]

As of April 2006, none of the 50 sites profiled in this report had progressed far enough in the cleanup process to be designated "construction complete."[23] Some of the sites, although proposed to the NPL between five and 13 years ago, have never even been made "final" NPL sites.[24] "Final" sites have been added to the National Priorities List through the issuance of a final rule in the Federal Register and are the only sites at which EPA can use Trust Fund monies to pay for long-term remedial actions.[25] In contrast, proposed NPL sites are not eligible for

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[17] Katherine N. Probst & Diane Sherman, *Success for Superfund: A New Approach for Keeping Score*, at 1 (April 2004), *available at* http://www.rff.org/rff/Documents/RFF-RPT-SuperfundSuccess.pdf (last visited March 28, 2005); 40 C.F.R. § 300.425(e).

[18] U.S. Envtl. Prot. Agency, *NPL Site Totals by Status and Milestone as of April 25, 2006*, *available at* http://www.epa.gov/superfund/sites/query/queryhtm/npltotal.htm (last visited May 1, 2006).

[19] U.S. Envtl. Prot. Agency, OSWER Directive 9320.2-09A-P, Close Out Procedures for National Priorities List Sites 3-1 (2000), *available at* http://www.epa.gov/superfund/resources/closeout/pdf/guidance.pdf (last visited March 28, 2005) [hereinafter, EPA, Close Out Procedures for NPL Sites].

[20] Probst & Sherman, *supra* note 17, at 1; U.S. Envtl. Prot. Agency, *Final Rule on National Oil and Hazardous Substances Pollution Contingency Plan*, 55 Fed. Reg. 8666, 8699 (March 8, 1990).

[21] EPA, Close Out Procedures for NPL Sites, *supra* note 19 at 3-1. Sites also qualify as construction complete when "EPA has determined that the response action should be limited to measures that do not involve construction," or when the site qualifies for deletion from the NPL. *Id*.

[22] Katherine N. Probst, *Whither Superfund? Is Superfund Withering?*, Envtl. Forum, July/Aug. 2005 at 21 [hereinafter, Probst, *Whither Superfund?*].

[23] Construction complete status last verified April 13, 2006. For more detailed information on the significance of the "construction complete" designation, *see supra* notes 20-21 and accompanying text.

[24] *See supra* note 9.

[25] *See, e.g.*, Probst, *et al*., Superfund's Future, *supra* note 9, at 39, 271; 40 C.F.R.

long-term federal "remedial action" funding, nor do EPA or the states typically make them a priority for enforcement actions. Most of the 50 sites categorized as "proposed" have been in that status for a decade or longer. In some instances, EPA claims that the states in which they are located are "taking the lead" on pursuing them or it says that because responsible parties are being "cooperative," it has deferred a decision to finalize the listing.[26] Neither rationale explains why the sites have languished for so long.

Rather, funding shortages appear to be largely responsible for the lagging cleanup of these and other NPL sites. In 2002, EPA's Office of Inspector General reported that the agency granted funds 23 percent below what its regional offices requested for remedial construction activities at NPL sites.[27] Five sites received less funding than the regional office administering the site requested, and seven sites received no funding at all.[28] Among the sites that received no funding was Jasper Creosoting in Texas, one of the 50 sites featured in this report. Region 6 officials stated that the lack of funding at this site presents "long-term risks to human health and the environment," noting that without funding to implement a permanent remedy, the contaminated groundwater plume migrating from the site will eventually reach the water well for the City of Jasper, Texas.[29] Three years later, in its FY 2004 Superfund Annual Report, EPA reiterated that "[t]he Superfund program faces a backlog of new cleanup projects ready to begin construction."[30] And, for FY 2005, EPA reported that it did not have enough resources to fund new projects that were ready for construction at nine sites.[31]

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§ 300.425(b)(1).

[26] *See supra* note 9.

[27] *See* Letter from Nikki L. Tinsley, U.S. ENVTL. PROT. AGENCY, Office of the Inspector Gen., to James Jeffords, Chairman, U.S. Senate Comm. on Env't and Pub. Works 1 (Oct. 25, 2002) *available at* http://www.epa.gov/oig/reports/2002/boxer.pdf (last visited April 4, 2006).

[28] *Id*. at 3. The sites (and states in which they lie) for which actual funding fell short of requests were: Atlas Tack Corp. (MA), Elizabeth Mine (VT), Jennison-Wright Corporation (IL), Continental Steel Corp. (IN), Central Wood Preserving Co. (LA), Hart Creosoting Company (TX), Jasper Creosoting Company (TX), Basin Mining Area (MT), Upper Tenmile Creek Mining Area (MT), Gilt Edge Mine (SD), and Lorentz Barrel & Drum Co. (CA). *Id*. at Enclosures 1 and 2. Gilt Edge Mine received less funding than requested for both remedial action construction activities (Enclosure 1) and long-term response actions (Enclosure 2). *Id*.

[29] *Id*. at 3-4.

[30] U.S. ENVTL. PROT. AGENCY, EPA-540-R-05-001, FY 2004 SUPERFUND ANNUAL REPORT 20 (2005), *available at* http://www.epa.gov/superfund/action/process/pdfs/fy2004/fy2004.pdf (last visited April 4, 2006).

[31] U.S. ENVTL. PROT. AGENCY, *Superfund National Accomplishments Summary Fiscal Year 2005 as of November 22, 2005*, http://www.epa.gov/superfund/action/process/numbers05.htm (last visited April 7, 2006). For a list of the nine sites that did not receive new construction funding in fiscal year 2005, please *see* http://www.epa.gov/superfund/accomp/factsheets05.htm#not_funded (last visited April 7, 2006).

These developments have taken a drastic toll on Superfund cleanups. As shown in Figure 1, the number of construction completions dropped precipitously beginning in 2001.[32] One explanation for the decline is that during the 1990s, EPA's regional offices focused on cleaning up less complex sites first, in order to achieve high targets for construction completions.[33] Accordingly, "EPA is now left with many of the sites that require more complex, lengthy, and expensive cleanups, which take more work overall and a longer amount of time to reach construction complete status."[34] Nonetheless, funding shortfalls — including those which prevent some cleanup projects from even being started — undoubtedly play a significant role in EPA's recent lackluster record in moving sites to "construction complete."[35]

Site Examples

Superfund sites come in many guises. Most of the 50 sites are located in heavily populated urban or suburban neighborhoods and contain a toxic soup of harmful chemicals with direct routes of exposure — e.g., contaminated water, soil or air — for the people who live in surrounding communities. The sites were used by manufacturers to dispose of liquid and solid toxic wastes for many decades. Some sites date back as far as the turn of the last century. They have been included on the NPL for long periods of time, with the oldest having been listed on the very first NPL in 1983[36] and the most recent listed in 2001, at the same time that annual construction completions dropped by half. Inexplicably, some of the sites that have waited the longest for cleanup are owned by companies that remain viable, even profitable. For example:

- **Universal Oil Products** (Chemical Division), a 75-acre site in **Bergen County, New Jersey**, was added to the NPL in 1983 and was used to manufacture a variety of toxic chemicals from 1932-79. Approximately 4.5 million gallons of liquid waste heavily laced with such volatile organic compounds as vinyl chloride, benzene and trichloroethylene were dumped in unlined lagoons, resulting in contamination of soil, surface water and groundwater. The runoff of waste polluted the nearby Hackensack River Basin, which is used by local residents for recreation. Allied Signal, now

[32] EPA, *NPL Milestones by FY*, *supra* note 3.
[33] Probst & Sherman, *supra* note 17, at 3.
[34] *Id*.
[35] *Id*., note 7 (noting that "there may be other reasons as well for the decrease in the number of construction complete sites, including funding shortfalls.").
[36] EPA published the first NPL, containing 406 sites, on Sept. 8, 1983. 48 Fed. Reg. 40658 (Sept. 8, 1983). Eight of the 50 sites profiled in this report were on that first NPL: Aerojet General (CA); Iron Mountain Mine (CA); Stringfellow (CA); American Creosote Works (Pensacola Pit) (FL); Reeves Southeast Galvanizing Corp. (FL); Nease Chemical (OH); CPS/Madison Industries (NJ); and Universal Oil Products (Chemical Division).

Honeywell, has been identified as a responsible party at the site and has been conducting cleanup activities. In 2005, Honeywell was ranked number 75 on the Fortune 500, with profits topping $1.2 billion.[37]

- The 85-acre **Bofors-Nobel** site in **Muskegon County, Michigan**, was first listed in 1988, and responsible parties include American Cyanamid, Akzo-Nobel, Bissell Corporation, DuPont, Eli Lilly, General Electric, IBM and Union Carbide, most of which either are or were listed on the Fortune 500. Unlined lagoons were used for disposal of the wastes generated by the production of alcohol-based detergents, saccharin, pesticides, herbicides and dye intermediaries. Final cleanup plans were completed in the early 1990s, but negotiations with the companies listed above, among others, slowed implementation until the late 1990s, and even then, federal funding was used to construct groundwater treatment facilities. The census tract in which the site is located has a median household income of about $38,000.

Several of the 50 sites were owned by companies that used extraordinarily toxic chemicals, some of which (e.g., creosote and lead) are now banned for most purposes. Over decades, excess chemicals and metals spilled or dropped onto the bare ground, where they seeped into underground aquifers or were washed by rain into adjacent storm sewers, rivers, or creeks. For example:

- The **American Creosote Works** (Pensacola Pit) site in **Escambia County, Florida**, was used from 1902-1981 for wood preserving. Creosote was used until 1950, when pentachlorophenol became the chemical of choice. Ponds set up to "percolate" these highly toxic liquids overflowed, spilling into Bayou Chico and the Pensacola Bay. The census tract encompassing the site is 48 percent minority, with a median household income of $23,000.

- The **Lawrence Aviation Industries** site in **Suffolk County, New York**,covers 160 acres and was used to manufacture titanium sheeting for the aeronautics industry. In 1980, the site owner crushed over 1,600 drums of trichloroethylene, acid sludges and other toxics, spilling their contents onto the unprotected soil. It also poured wastes into surface waters and two unlined lagoons.

[37] Fortune 500, 1955-2005*,* CNNMoney.com, *available at* http://money.cnn.com/magazines/fortune/fortune500_archive/snapshots/2005/634.html (last visited May 8, 2006).

- The **DePue/New Jersey Zinc/Mobil Chemical Company** in **Bureau County, Illinois,**was used by a series of companies to smelt zinc for close to a century, creating waste piles, lagoons and cooling ponds filled with toxic wastes that now threaten a community with a median household income of $37,000, as well as the nearby DePue Lake, which houses a fishery, state wildlife refuge and numerous wetlands.

Other sites served as dumping grounds for multiple companies, many of which have changed their names, metamorphosing into other businesses or simply disappearing.

- One of the oldest and most notorious sites on the NPL, the 17-acre **Stringfellow** site, is located in a canyon near **the southern California town of Glen Avon**. It served as a hazardous waste disposal facility from 1956-1972, accepting over 34 million gallons of waste from metal refinishing, electroplating and pesticide manufacturing companies. This waste was dumped into surface evaporation ponds. Rainfall caused the ponds to overflow, sending streams of heavily polluted water into nearby neighborhoods. The population of the census tract around the site is 52 percent minority and has a median household income of $43,000.

- Similarly, the **Lower Darby Creek Area** in **Delaware County, Pennsylvania,** consists of two separate dumps, the Clearview Landfill and the Folcroft Landfill and Annex, where a combination of hospital waste, demolition debris and municipal waste were disposed of by several companies and local governments. Clearview was covered and re-vegetated in 1976, and the Philadelphia Redevelopment Authority constructed hundreds of homes on its eastern and southern borders. Years later, EPA discovered that the covers were eroding and contaminated runoff was seeping into nearby Darby Creek.

- The 550-acre **LCP Chemicals** site in **Glynn County, Georgia**,was used for seven decades as an oil refinery, paint manufacturing plant, power plant and chlor-alkali factory. Five major companies have been identified as responsible parties at the site: ARCO, Georgia Power Company, Dixie Paints and Varnish Company (currently O'Brien Company), Allied Chemicals, Inc. (now Allied Signal, or Honeywell) and the Hanlin Group, a subsidiary of LCP Chemicals-Georgia, Inc. EPA estimates that more than 380,000 pounds of highly toxic mercury was "lost" in the area between 1955-1979 and, as a result, commercial fishing has been banned in the area. The census tract in which the site is located is 63 percent minority, with a median household income of $24,000.

At several of the 50 sites profiled in this report, hundreds of acres of ordinary household garbage served as the foundation for disposal of millions of gallons of liquid industrial waste. At the time, engineers theorized that the garbage would serve as a sponge, soaking up the corrosive liquid and holding it in place. But the sponge became saturated and began leaking into the ground. Far from solving the problem of what to do with these heavily contaminated liquids, the garbage, which covered dozens — even hundreds — of acres, just spread it around. For example:

- In **Montgomery County, Ohio**, the 102-acre **North Sanitary Landfill** sits atop an aquifer used for drinking water, which is composed of highly transmissive sands and gravel. Portions of the site have caught fire several times. It is located in a census tract with a median household income of $25,000.

- Another glaring example is the 190-acre **Operating Industries** site in **Monterey Park, California**, located in the heart of the densely populated Los Angeles metropolitan area where millions of gallons of liquid industrial waste were poured over huge landfills containing ordinary household garbage. Leachate from the site includes vinyl chloride, benzene, tetrachloroethylene and various heavy metals. The surrounding census tract is 61 percent minority, with a median household income of $47,000.

Lastly, as mentioned earlier, some of the 50 sites were proposed for the NPL, but have never been converted to final status, meaning that they are ineligible for long-term federal remedial funding. For example:

- The **Dover Chemical Corp.** site in **Tuscarawas County, Ohio**, was proposed for listing in May 1993, but has not been added to the final NPL. Dover Chemical has operated a manufacturing facility at the site since 1950, which produces products that are used to manufacture extreme pressure lubricants, plasticizers and flame retardants for vinyl products.

- The **Normandy Park Apartments** site in **Hillsborough County, Florida**, was proposed for listing in February 1995, but has never been finalized. The site is the former home of a recycling operation that involved crushing batteries and smelting lead. The company, Gulf Coast Recycling, ultimately leveled the buildings used for these purposes and constructed apartment homes on the site, which remain occupied.

Polluters Pay No More: Corporate Tax Windfalls & the Fate of the Superfund Program

The 'Polluter Pays' Framework

In the late 1970s, the nation came to know the town of Love Canal, New York. Built on top of a massive toxic waste dump, town residents suffered from severe illness and birth defects caused by chemical exposures. Ultimately, 1,000 families were relocated and homes along the "Canal" were demolished.[38]

After the revelations about Love Canal and similar sites won widespread media attention, the need for a comprehensive program to address the country's toxic waste crisis was clear. However, there remained the question of who would pay. Environmentalists argued that because companies profited from cheap waste disposal methods, it was they who should pay to clean up the resulting mess.[39] The chemical industry retorted that society as a whole had benefited from the disposal methods in the form of less expensive products, so society as a whole should pay for the cleanup.[40]

The law that was ultimately enacted (officially titled the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)) took a two-pronged approach that affirmed, and then reaffirmed, the "polluter pays" principle.[41] The choice of which prong to pursue was left up to EPA, both in general and on a site-specific basis. First, it created a liability scheme to get "responsible parties" to pay for the cleanup of contaminated sites themselves — known colloquially as "lawyers first, shovels later."[42] Responsible parties who did not honor the government's request that they clean up "voluntarily" were subject to "treble damages" — three times ultimate cleanup costs — as punishment for their recalcitrance.[43]

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[38] A. Theodore Steegmann, Jr., *History of Love Canal and SUNY Buffalo's Response: History, the University Role, and Health Research*, 8 Buff. Envtl. L. J. 173, 175 (2001); *See also* Robert V. Percival, et al., Environmental Regulation: Law, Science and Policy, 263 (3rd ed. 2000).

[39] Cartwright, *supra* note 2, at 303 (citing Cong. Q., Inc., *Congress Clears 'Superfund' Legislation*, 36 Cong. Q. Almanac 584, 587 (1980)).

[40] *Id*. (citing Cong. Q., Inc., *Congress Clears 'Superfund' Legislation*, 36 Cong. Q. Almanac 584, 587 (1980)).

[41] President Carter signed the Comprehensive Environmental Response, Compensation and Liability Act into law on Dec. 11, 1980. Pub. L. No. 96-510 (codified as amended at 42 U.S.C. §§ 9601-9675).

[42] Katherine N. Probst, *Superfund at 25: What Remains to Be Done*, Resources, Fall 2005, at 20 (2005) [hereinafter, Probst, *Superfund at 25*]; 42 U.S.C. § 9606(a), CERCLA § 106(a) (authorizing EPA to issue an administrative order or secure a court order to force responsible parties to undertake cleanup measures necessary to abate contamination posing an "imminent and substantial endangerment to the public health or welfare or the environment").

[43] *Id*.

Second, the statute created a multi-billion dollar trust fund (known generally as the "Superfund," but to avoid confusion with the program itself, referred to here as the "Trust Fund" or the "Fund") that the federal government could use to pay for site cleanups where responsible parties "could not, or would not, foot the bill."[44] The law further provided that the government could recover those costs from any responsible parties it could later find, leading to the colloquial label "shovels first, lawyers later."[45] To finance the Trust Fund, Congress levied taxes on those industrial sectors most likely to have contributed to the hazardous waste sites.

The two tracks were integrally related to one another — without the resources provided by the Trust Fund, the government could not investigate sites, prosecute responsible parties, or use government-funded cleanup to abate threats to public health. Conversely, enforcement actions replenished the Trust Fund. Although Congress never anticipated that the Trust Fund would become self-supporting given the costs of administering the program and the likelihood that some sites would prove to be "orphans" with no responsible parties around, the two tracks ensured that thousands of identifiable polluters would end up either paying now, or paying later.

Transition to 'Let the People Pay'

Superfund taxes generated $1.5 billion a year, or $4 million per day.[46] These funds were significant — and vital to the health of the program — but they accounted for only a small fraction of oil, chemical and other industry profits. Indeed, this amount represents *2 percent of the 2005 profits* earned by *just six of the nation's top petroleum and petrochemical producing companies* — which paid the largest share of Superfund taxes — and the *compensation paid to the six companies' CEOs* would cover over *a month's worth of lost tax revenue* (see Figure 4).

[44] Probst, *Superfund at 25, supra* note 42, at 20.

[45] 42 U.S.C. §§ 9607(a)(4)(A)-(D), CERCLA §§ 107(a)(4)(A)-(D) (authorizing recovery of cleanup costs from responsible parties).

[46] U.S. Envtl. Prot. Agency, The Facts Speak for Themselves: A Fundamentally Different Superfund Program, at 6, *available at* http://www.epa.gov/superfund/whatissf/sf_fact4.pdf (last visited March 27, 2006); *see also* Mark Reisch, *Superfund Reauthorization Issues in the 105th Congress*, Cong. Research Serv. Issue Brief No. 97025 (1998), *available at* http://ncseonline.org/NLE/CRSreports/waste/waste-17.cfm (last visited March 29, 2006).

Figure 4: Petroleum Profits

Company Name	Fortune 500 Rank	2005 Profits ($ in millions)	CEO Name	2005 CEO Compensation
Exxon Mobil	1	$36,130	Lee R. Raymond	$25,773,000
Chevron	4	$14,099	David J. O'Reilly	$8,170,000
ConocoPhillips	6	$13,529	James J. Mulva	$16,789,000
Valero Energy	15	$3,590	William E. Greehey	$44,875,000
Marathon Oil	23	$3,032	Clarence P. Cazalot, Jr.	$4,839,000
Sunoco	66	$974	John G. Drosdick	$33,436,000
		Total: $71,354		Total: $133,882,000

Nonetheless, industry lobbied fiercely against the Superfund tax, and following the Republican takeover of Congress in 1995, the tax was allowed to expire.[47] At the time, the Fund still had an unobligated balance of nearly $4 billion, as well as continual deposits from interest payments, cost recoveries, fines and penalties.[48] As a result, the lapse in taxing authority had little initial effect on the ability to fund the program.[49]

Although EPA had enough money to keep up a reasonable pace for cleanup initially, the Clinton administration recognized that the long-term stability of the program required that the fund be replenished continually, and President Clinton faithfully recommended reinstatement of the Superfund taxes in his annual budget submissions.[50]

Year after year, however, Republican-controlled Congresses resisted these requests, and, as EPA received appropriations without any revenue from taxes replenishing these amounts, the Trust Fund's balance continued to erode. In 1998, Congress asked the General Accounting Office (GAO, subsequently renamed the Government Accountability Office) for reassurance that there was no legal prohibition on shifting the entire burden onto general taxpayers. Answering narrowly, GAO replied that such an approach was legal.[51] Nonetheless, the

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[47] *Id*.

[48] James E. McCarthy, *Superfund Taxes or General Revenues: Future Funding Options for the Superfund Program*, Cong. Research Serv. Report No. RL31410 (2005) at at 2-3, *available at* http://ncseonline.org/nle/crsreports/05mar/RL31410.pdf (last visited March 29, 2006).

[49] *Id*. at 3.

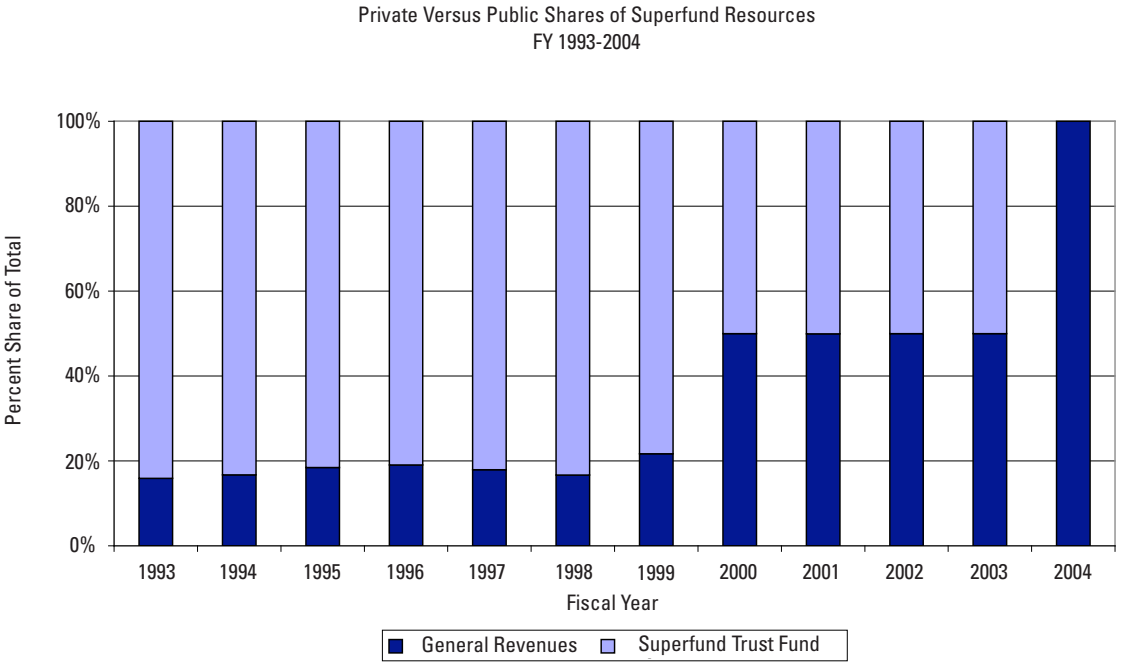
[50] *See id*.

[51] U.S. Gen. Accounting Office, GAO/RCED-98-152R, Superfund: Status of the Superfund Trust Fund 1-2, 4 (1998), available at http://archive.gao.gov/paprpdf2/160233.pdf (last visited March 30, 2006). The GAO discussed the issue with officials from the Congressional Budget Office, EPA and the Office of Management and Budget and none "identified any provisions of law or the congressional budget resolution that would preclude funding the Superfund program entirely from general revenues"). *Id*. at 4.

shift was a profound break with the statute's underlying premise that polluting industries, not citizens, should support this burden.

As shown in Figure 5, from FY 1993-1999, the share of the Superfund program funded by general taxpayers remained constant at $250 million, less than 20 percent of the overall appropriation.[52] In 1999, that amount increased to $325 million, and from FY 2000-2003, rose to more than $600 million per year — around 50 percent of the total appropriations.[53] By 2004, general revenues accounted for 100 percent of appropriations to EPA for the Superfund program because by the end of FY 2003, the Trust Fund's balance was zero.[54]

Figure 5: Ratio of Polluter and Individual Taxpayer Contributions to Trust Fund[55]



[52] U.S. GEN. ACCOUNTING OFFICE, GAO-04-787R, SUPERFUND PROGRAM: BREAKDOWN OF APPROPRIATIONS DATA 3 (2004), available at http://www.gao.gov/new.items/d04787r.pdf (last visited March 31, 2006) [hereinafter, GAO, BREAKDOWN OF SUPERFUND APPROPRIATIONS].

[53] *Id*.

[54] *Id*.; McCarthy, *supra* note 48, at 4-5 (citing Budget of the United States Government, Appendix, Fiscal Years 1996-2005).

[55] Data set forth in *Sources and Amounts of Appropriations to the Superfund Program, Fiscal Years 1993 through 2004* in GAO, BREAKDOWN OF SUPERFUND APPROPRIATIONS, *supra* note 52, at 3.

Funding Shortages

The process of cleaning up heavily contaminated hazardous waste sites is complex, resource-intensive and time consuming. Specifically, "major Superfund cleanups can cost millions or even hundreds of millions of dollars" and "can involve complex remedies such as excavation and treatment of large amounts of soil, lengthy treatment of polluted underground water, or even dredging and removal of contaminants from underwater sites."[56]

Coinciding with the decline of the Trust Fund balance, yearly appropriations for Superfund have fallen well below program needs. During the spring and summer of 1999, staff on the relevant Congressional committees "tried unsuccessfully to determine how much money the Superfund program would need over the next few years and when a decrease in needed appropriations was likely to occur."[57] Recognizing that more detailed analysis was needed, Congress requested that Resources for the Future (RFF) conduct an independent study.[58] After analyzing all major elements of the program, the report's authors presented their best estimate as to future funding requirements, along with alternative low and high case scenarios to reflect uncertainties about factors used in their model.[59] The authors concluded that *the program would not be in a position to "ramp down" in the next decade*.[60]

Congress did not heed this warning, cutting actual appropriations to a point far short of RFF's estimates.[61] A comparison of enacted appropriations and RFF's base and low case estimates appears in Figure 6. Specifically, cumulative appropriations for FY 2000-2005 fell short of RFF's base case estimate of costs for the same period by $1.75 billion.[62] Compared against RFF's low case estimate, actual appropriations still fell $1.3 billion short.[63]

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[56] Meredith Preston, *With Trust Fund Depleting, Battle Brews Over Whether to Reinstate Industry Taxes*, 33 Env't Rep. (BNA) 1078 (May 10, 2002) [hereinafter, Preston, *Trust Fund Depleting*].

[57] Probst, *et al*., Superfund's Future, *supra* note 9, at 3 (2001).

[58] *Id*. at 33 (citing Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act, 2000, Conference Report 106-379).

[59] *Id*. at 121.

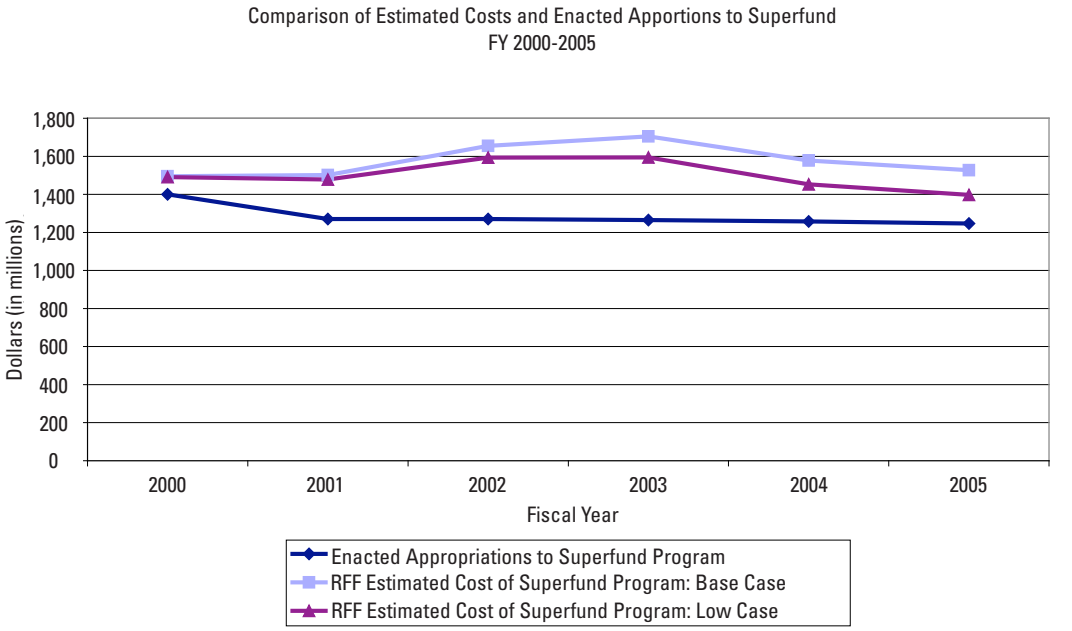
[60] *Id*. at 157; *see also* Probst, *Whither Superfund?*, *supra* note 22.

[61] *See* notes 62-63, *infra*, and accompanying text; *see also* Preston, *Trust Fund Depleting, supra* note 56 (quoting Kate Probst, co-author of the RFF report: "[i]f you look at our numbers, they've (EPA) been underfunded since FY 2000").

[62] Data for enacted appropriations to the Superfund program for fiscal years 2000 – 2004 were obtained from GAO, Breakdown of Superfund Appropriations, *supra* note 52, at 3. For fiscal year 2005, the enacted appropriation figure was obtained from U.S. Envtl. Prot. Agency, *Superfund Appropriation History*, *available at* http://www.epa.gov/superfund/action/process/budgethistory.htm (last visited April 4, 2006) [hereinafter, EPA, *Superfund Appropriation History*]. RFF's base case estimates appear in Table 7-4, *Estimated Total Annual Cost to EPA of Superfund Program: Base Case FY2000-2009 (Millions of 1999$)* in Probst, *et al*., Superfund's Future, *supra* note 9, at 158.

[63] Data for enacted appropriations to the Superfund program for fiscal years 2000 – 2004 were ob-

Figure 6: Superfund's Resource Gap[64]



When measured in nominal dollars, funding for the Superfund program has remained relatively constant over the last few years. However, when adjusted for inflation, funding for the program has been steadily declining.[65] This trend appears to be continuing. The President's FY 2007 Budget Request for Superfund is $1.259 billion — $20 million less than the FY 2006 request — all of which will come from general revenues.[66]

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tained from GAO, BREAKDOWN OF SUPERFUND APPROPRIATIONS, *supra* note 52, at 3. For fiscal year 2005, the enacted appropriation figure was obtained from EPA, *Superfund Appropriation History*, *supra* note 62. RFF's low case estimates appear in Table H-8, *Estimated Total Annual Costs to EPA of Superfund Program: Three Scenarios, FY2000-2009 ($1999)* in Probst, *et al*., SUPERFUND'S FUTURE, *supra* note 9, at 264.

[64] Data for enacted appropriations to the Superfund program for fiscal years 2000 – 2004 were obtained from GAO, BREAKDOWN OF SUPERFUND APPROPRIATIONS, *supra* note 52, at 3. For fiscal year 2005, the enacted appropriation figure was obtained from EPA, *Superfund Appropriation History*, *supra* note 62. The estimates presented are RFF's totals, which appear in Tables 7-4, *Estimated Total Annual Cost to EPA of Superfund Program: Base Case FY2000-2009 (Millions of 1999$)* (base case estimates); and H-8, *Estimated Total Annual Costs to EPA of Superfund Program: Three Scenarios, FY2000-2009 ($1999)* (low case estimates), in Probst, *et al*., SUPERFUND'S FUTURE, *supra* note 9, at 158, 264.

[65] For a comparison of Superfund appropriations in nominal dollars and constant 1987 dollars, *see* Probst, *Superfund at 25, supra* note 42, at 22.

[66] Subcommittee on Water Resources and Environment, House Committee on Transportation and Infrastructure, Hearing on Agency Budgets and Priorities for FY 2007, *available at* http://www.house.gov/transportation/water/03-08-06/03-08-06memo.hml (follow "Background" hyperlink).

Superfund Opponents Spin

Despite these precipitous drops in the Trust Fund's balance, efforts to reinstate the Superfund taxes have failed repeatedly, largely as a result of unrelenting opposition by the petroleum and chemical industries and their allies in the Bush administration.[67] Instead of seeking additional resources, the administration has opted for a slowdown in cleanups. Indeed, in response to Superfund's financial troubles, one high-ranking EPA official even suggested that the agency could stop adding new sites to the NPL until work on current projects is completed.[68] Conveniently, this approach would not only prevent sites from becoming eligible for federal cleanup monies — and in effect bury information about sites that threaten public health and the environment[69] — but would gradually create the impression that the entire program could be abolished.

Superfund's opponents make two deceptive claims against reinstatement of the corporate tax. First, they argue that the "polluter pays" principle is already at work due to the statute's liability scheme and the contributions of responsible parties for site cleanup. And second, they claim the Trust Fund bears no relationship to program funding for Superfund.

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[67] *See e.g.*, Preston, *Trust Fund Depleting*, *supra* note 56 (noting measures to reinstate Superfund taxes planned by Sen. Robert Torricelli (D-N.J.) and proposed by Rep. Frank Pallone (D-N.J.)); Linda Roeder, *Insufficient Funds for Cleanup Operations, Supreme Court Decision Lead EPA Concerns*, 36 Env't Rep. (BNA) S-14 (Jan. 14, 2005) (reporting that bills to reintroduce the tax in the 108th Congress failed to win approval and that Sen. Barbara Boxer (D-Calif.) and Rep. Frank Pallone (D-N.J.) planned to reintroduce measures reinstating Superfund taxes) [hereinafter, Roeder, *Insufficient Funds*]; Linda Roeder, *Legislation Introduced in House to Reinstate Corporate Income Tax to Finance Trust Fund*, 36 Env't Rep. (BNA) 2293 (Nov. 11, 2005) (examining legislation introduced in November 2005 by Rep. Sherwood Boehlert (R-N.Y.) to reinstate the corporate environmental income tax) [hereinafter, Roeder, *Legislation Introduced*]; Linda Roeder, *EPA Cites Challenge of Cleaning Up Sites While Contending With Limits on Funding*, 37 Env't Rep. (BNA) S-17 (Jan. 20, 2006) (describing bill introduced by Reps. Maurice Hinchey (D-N.Y.) and Christopher Shays (R-Conn.) that would restore both the excise taxes on the petroleum and chemical industries as well as the corporate environmental income tax).

[68] Thomas Dunne, *Remarks; Superfund Seminar; Charlottesville, Virginia* 9 (Dec. 2, 2004), *available at*: http://www.epa.gov/oswer/docs/2004_1202_dunne_sf_speech.pdf (last visited April 7, 2006) (posing the question, "would Superfund benefit, and would the public approve, if EPA stopped listing new sites, or didn't begin cleanup at any newly eligible orphan sites, until current work in the pipeline was completed?") [hereinafter, Dunne, *Remarks*]; *see also* Linda Roeder, *Insufficient Funds*, *supra* note 67 (quoting Thomas Dunne, then EPA Acting Assistant Administrator for Solid Waste and Emergency Response); Meredith Preston, *Agency Seeking Ways to Control Costs, Manage Available Finances, Official Says*, 36 Env't Rep. (BNA) 861 (April 29, 2005) (quoting Samuel Coleman, Director of the Superfund Division, EPA Region 6 as stating that EPA is considering not adding any more sites to the NPL "unless they pose a significant risk to human health").

[69] Roeder, *Insufficient Funds*, *supra* note 67 (noting opposition by environmental organizations and Congressional Democrats).

Superfund Spin, Part 1: 'Polluters Already Pay'

The Bush administration has endorsed the view long promoted by the oil and chemical industries that the Superfund tax is unfair because polluters already pay for cleanups. Administration officials point out that 70 percent of cleanups are paid for by responsible companies, not the Trust Fund.[70]

Yet as explained above, when Congress enacted the Superfund law, it intended not only that specific polluters pay to clean up wastes at the individual sites they contaminated, but also that those industries most likely to have profited from cheap disposal practices shoulder the financial burden of cleaning up "orphan" sites.[71]

In the absence of the Superfund corporate tax, tax revenues from average citizens are now being used to replenish the Trust Fund — just as the Fund is expected to finance an increasing share of cleanups. Indeed, EPA regional managers predict cleanups financed by the Trust Fund will increase from 28 percent to 43 percent[72] in coming years because, according to Resources for the Future, "states are now addressing the majority of single-party sites and sites with cooperative responsible parties . . . leaving EPA the orphan sites and sites with recalcitrant PRPs — that is, the sites more likely to have Fund-lead actions."[73]

The Trust Fund also helps ensure that responsible parties pay. The 70 percent statistic derives from EPA's evaluation of the success of its "Enforcement First" policy, which it adopted following the agency's publication of its 1989 "90-Day Study."[74] In the early years of Superfund, EPA frequently performed cleanups using Fund money and then sued responsible parties to recover costs — in FY 1987, only 30 percent of remedial actions were conducted by responsible parties.[75] In 1989, however, EPA committed to using a "lawyers first, shovels later" approach.[76] Under

[70] *See, e.g.*, Council on Environmental Quality, *Cleaner Lands*, *available at* http://www.whitehouse.gov/ceq/clean-lands.html (last visited May 22, 2006).

[71] *See* McCarthy, *supra* note 48, at 2.

[72] Probst, *et al*., Superfund's Future, *supra* note 9, at 103. Estimates by the regional managers applied to the "next five years," based on planning data for remedial action starts as well as projections through FY 2005. *Id*.

[73] *Id*. at 103-04.

[74] U.S. Env't Prot. Agency, OSWER 9201.101A, 90-Day Study: A Management Review of the Superfund Program (Jan. 1, 1989). The study focused on a variety of common concerns associated with Superfund, such as enforcement, cleanup response time, and community participation. U.S. Env't Prot. Agency, *Superfund Reforms; Round 1*, http://www.epa.gov/superfund/programs/reforms/rounds/round1.htm (last visited April 7, 2006) [hereinafter, EPA, *Superfund Reforms: Round 1*].

[75] *Id*.

[76] U.S. Env't Prot. Agency, OSWER 9201.101A, 90-Day Study: A Management Review of the Superfund Program (Jan. 1, 1989). The study focused on a variety of common concerns associated with Superfund, such as enforcement, cleanup response time, and community participation.

this approach, EPA pursued financial settlements with responsible parties before using Trust Fund money to begin cleanups.[77] As a result, by FY 1992, the share of remedial actions conducted by responsible parties had jumped to 70 percent.[78]

Today, however, the incentive for responsible parties to settle with EPA — and pay for cleanups — is substantially weakened. Because the money available in the Fund has dwindled, EPA now lacks sufficient funding to credibly pursue responsible parties. If funding is not restored, it inevitably will become easier for sites to "hide in the weeds," in the lexicon of the program, and avoid cleanup obligations.[79]

To ensure that EPA is able to both handle the anticipated increase in Fund-financed cleanups and achieve settlements with responsible parties, it needs not only sustained but increased levels of program funding — funding that ought to come from a reinstated industry tax.

Superfund Spin, Part 2: 'The Trust Fund Bears No Relationship to Program Funding'

Every penny raised by Superfund corporate taxes, before they expired, went directly into the Trust Fund. The law does not authorize either Congress or the executive branch to spend this money for any other purpose. Nor is EPA allowed to withdraw these revenues directly; instead, it must wait for a Congressional appropriation. In sum, unless and until Congress appropriates money from the Fund, tax revenues remain in the bank, accruing interest but sequestered from any other uses.

Bush administration officials frequently distort these fundamental realities in defending their opposition to the Superfund tax.[80] Because Congress must

U.S. Env't Prot. Agency, *Superfund Reforms; Round 1*, http://www.epa.gov/superfund/programs/reforms/rounds/round1.htm (last visited April 7, 2006) [hereinafter, EPA, *Superfund Reforms: Round 1*].

[77] *See* Memorandum from John Suarez, Office of Enforcement and Compliance Assurance & Marianne Horinko, Office of Solid Waste and Emergency Response to Regional Administrators 1 (Sept. 20, 2002), *available at*: http://www.epa.gov/compliance/resources/policies/cleanup/superfund/enffirst-mem.pdf (last visited April 7, 2006).

[78] EPA, *Superfund Reforms; Round 1*, *supra* note 76.

[79] Lack of funding also affects enforcement litigation – without funding adequate to conduct site investigations, EPA loses its ability to issue cleanup orders under CERCLA. *See* 42 U.S.C. § 9606(a), CERCLA § 106(a); *see also* Lois J. Schiffer, *How Litigation Shaped Superfund*, Envtl. Forum, July/Aug. 2005 at 24 (noting that the funding problem affects enforcement litigation in several ways, including that "EPA has less money to investigate sites so that it can move the process forward").

[80] Another argument is that a better alternative to reinstating the taxes is to increase efficiency within EPA's Superfund program. *See* Linda Roeder, *Legislation Introduced*, *supra* note 67 (quoting EPA Administrator Stephen L. Johnson). Velma Smith, Senior Policy Analyst at the National Environ-

appropriate money from the Trust Fund, the administration argues that the Fund's balance is irrelevant to the amount of funding available for the Superfund program[81] — even though the Trust Fund is permanently reserved to support the program. Marianne Lamont Horinko, who headed the Superfund program before briefly serving as acting EPA administrator after Christine Todd Whitman resigned, explained this argument in a 2004 speech[82]:

> The link between the Superfund Tax and EPA's cleanup budget is one of those urban myths, like giant alligators in the sewer system. There are no alligators, and there is no link. EPA's Superfund budget is appropriated each year by Congress. Over the past 10 years the amount appropriated to EPA for Superfund has remained remarkably consistent, roughly between $1.1 and $1.4 billion per year. But it's unrelated to the Superfund tax and Trust Fund balance. The Superfund budget is subject to the same kind of funding pressures as all other federal programs. In 1996, for example, the Trust Fund balance was $3.8 billion, while our appropriation was only $1.4 billion. I expect appropriations for Superfund cleanups will continue steady into the future, no matter what the balance in the Trust Fund. Even if the Superfund taxes were reimposed tomorrow, money collected would not flow directly to EPA. It would be subject to Congressional appropriations, and our Superfund budget would not necessarily increase. That budget is controlled by Congress, pure and simple.[83]

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mental Trust, has commented that looking for efficiencies in the operation of the Superfund program in order to address the funding shortfalls is like "taking the couch pillows out and scrounging around for change in order to pay this month's mortgage." Velma Smith, Remarks at the Panel Discussion, "Superfund Enforcement at 25: Learning from the Past and Looking to the Future," at the International Trade Center, Ronald Reagan Building Amphitheater, Washington, D.C. (Dec. 13, 2005).

[81] Amena H. Saiyid, *EPA Continues to Oppose Reinstatement of Corporate Taxes to Replenish Trust Fund*, 27 ENV'T REP. (BNA) 498 (March 10, 2006). As the president of the American Petroleum Industry explained to Congress in 1999, because Superfund is a discretionary domestic program subject to the budget rules that apply to all discretionary spending, it is "the discretionary spending caps, rather than the Trust Fund balance, [that] control the Superfund program's spending level." *The Superfund Completion Act of 1999: Hearing Before the Senate Committee on Environment and Public Works*, 106th Cong. (1999) (statement of Red Cavaney, President, American Petroleum Institute), *available at*: http://epw.senate.gov/107th /cav_5-25.htm (last visited April 7, 2006).

[82] Remarks by Marianne Lamont Horinko, Baker Botts Annual Environmental Seminar (Feb. 5, 2004), *available at* http://www.epa.gov/superfund/action/congress/02-05-04.htm (last visited April 7, 2006).

[83] *Id*. *See also* Dunne, *Remarks*, *supra* note 68, at 2-3 (arguing that amounts appropriated to the Superfund program "bear little or no relationship to the balance in the Trust Fund. If the tax were reimposed tomorrow, our budget would not necessarily go up one dime").

Yet as anyone familiar with the program realizes, Congress has had $1.45 billion per year *less* to allocate among budget priorities since Superfund taxes expired.[84] If the taxes were reinstated, the overall appropriations "pie" would increase, and Superfund would have a better chance of getting the bigger "slice" it so greatly needs. At the very least, even if Congress were to keep funding levels constant, it would likely revert to drawing about 80 percent of the Superfund program's appropriation from the Fund's corporate tax revenues.[85] Such an arrangement would not only free up an equivalent amount of general revenues for other programs, but also restore the "polluter pays" principle to Superfund.

Conclusion

Efforts to reauthorize CERCLA have, in the past, exhausted those involved in the process, and "few have the stomach" to face another attempt at reauthorization.[86] For the sake of those living near the 50 sites detailed in this report, as well as the millions of others living near hazardous waste sites across the country, Congress must take a collective deep breath and resolve to once again tackle reauthorization of CERCLA. At a minimum, Congress must dig beneath the administration's pat arguments against reinstating the Superfund taxes and reclaim the critical revenue they generate. Next, it must follow through and ensure that increased amounts of money in the Trust Fund result in increased appropriations to the Superfund program. Adequate funding may not, on its own, solve all the problems plaguing the Superfund program, but it is unquestionably a critical component to ensuring the cleanup of the nation's toxic waste sites.

[84] *See* McCarthy, *supra* note 48, at 3.

[85] Money in the Fund may only be used for purposes related to the Superfund program as spelled out in CERCLA. 42 U.S.C. § 9611, CERCLA § 111. Accordingly, if Congress wants to include any of the money in the Fund in its annual budget, it must appropriate it for Superfund. History demonstrates that Congress indeed uses the money in the Fund. From FY 1993-1999, about 80 percent of program funding was drawn from the Fund. *See supra*, note 52, accompanying text, and Figure 5.

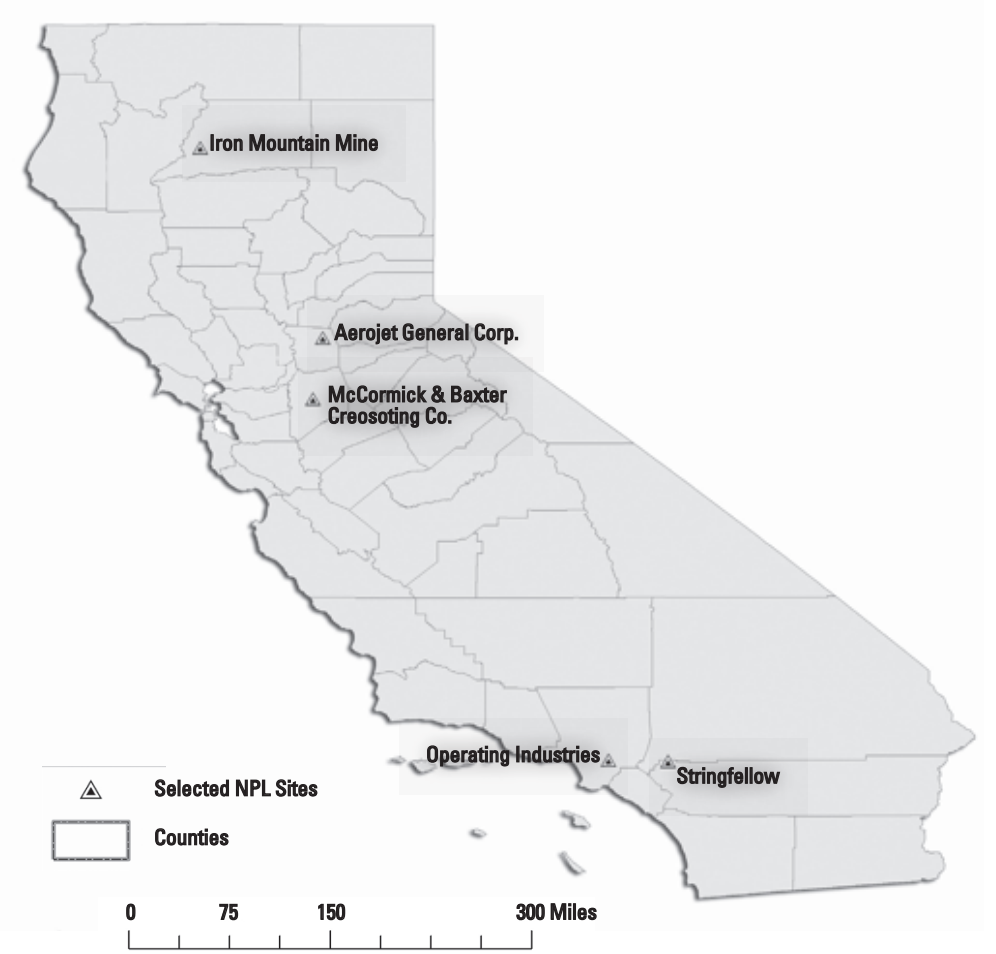
[86] Probst, *Whither Superfund?*, *supra* note 22.

50 Sites in 10 States

The Human and Environmental Costs of Superfund Neglect

To bring the threat to public health and natural resources to life, this report examines the status of the five worst National Priorities List (NPL) sites in each of the country's 10 most populous states. A complete list of these sites, along with demographic data and chemicals present, can be found in Appendix A. An explanation of the methodology used to select and analyze these sites can be found in Appendix B.

California

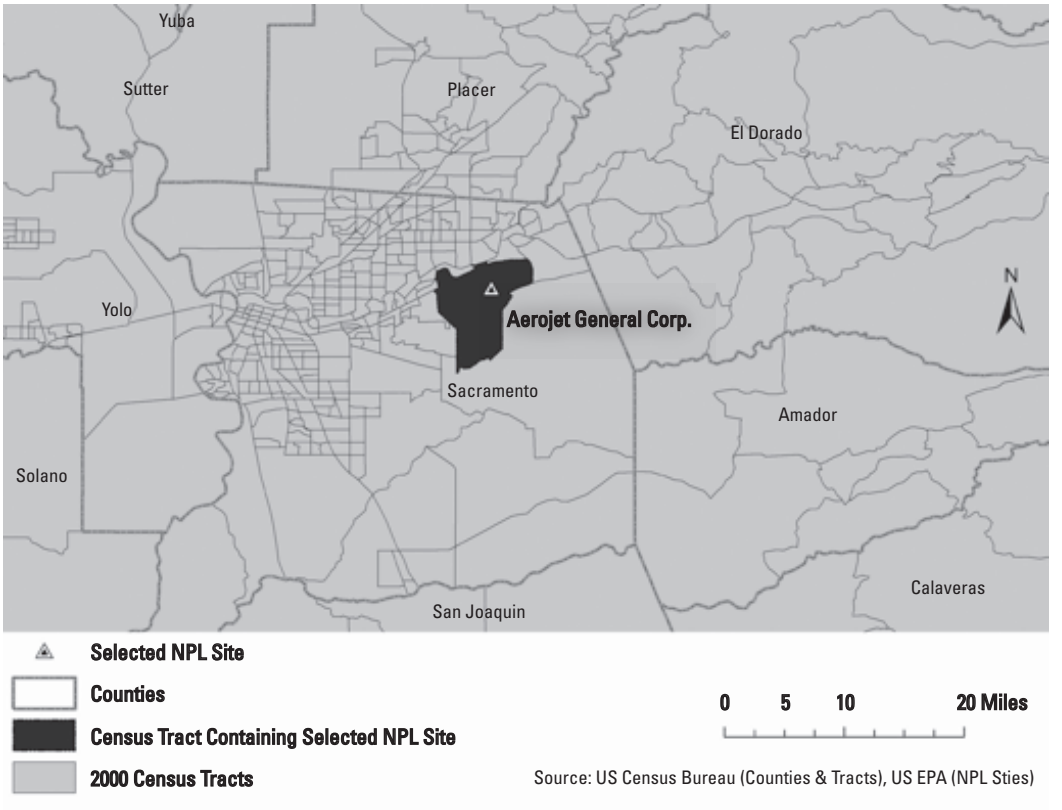


Source: US Census Bureau (States & Counties), US EPA (NPL Sties)

As of the 2000 Census, 22,453 Californians lived in the census tracts containing the five profiled NPL sites. Of those, 3,228 were children aged nine and younger. An additional 1,227 were persons aged 75 and older. In two of the five census tracts, the median household income for 1999 was below that for the nation.

Aerojet General Corp.

Sacramento County, California
HRS Score: 54.63



Demographic Profile

Census Tract No.: 0087.01
Total Population: 4,751
Median Age: 42.5
Children 9 and under: 582
Persons 75 and older: 339
Percent Minority: 22.6
Percent Hispanic: 4.4
Median Household Income in 1999: $84,740

Site Description[87]

Added to the NPL on September 8, 1983, Aerojet General Corp. is a 5,900-acre site near Rancho Cordova, 15 miles east of Sacramento and a half-mile from the American River. Since 1953, Aerojet and its subsidiaries manufactured liquid and solid propellant rocket engines and formulated various other agricultural, pharmaceutical and industrial chemicals. A second chemical manufacturing complex operated on the site from 1974-1979. The companies disposed of unknown quantities of hazardous waste using surface impoundments, landfills, deep injection wells, leachate fields and open burning. These practices released various chemicals and processing wastes into groundwater and surface water. In 1979, volatile organic compounds (VOCs) were found off-site in private wells and in the American River in 1983. Perchlorate, a component of rocket fuel, was found in drinking water wells off-site in 1997. Soils were also contaminated with metals including arsenic, cadmium and lead.

Throughout the area, groundwater is used extensively to supply municipal, domestic, industrial and irrigation water. Nearby Lake Natoma and Alder Creek are used for recreational activities. The American River is used for public water supplies. Communities potentially affected by this site are Rancho Cordova, population 55,000; Carmichael, population 49,000; and Sacramento, population 407,000. The closest residence is about 500 feet away from the site. Contaminated public and private drinking water supply wells have been closed.

Contaminants Present

Ground and surface water:

- volatile organic compounds (VOCs), including Trichloroethylene (TCE) and Perchloroethylene (PCE)
- 1,1-Dichloroethylene
- 1,1-Dichloroethane
- 1,2-Dichloroethylene
- 1,2-Dichloroethane
- 1,1,2-Trichloroethane
- Carbon Tetrachloride
- Vinyl Chloride
- Chloroform
- Freon-113
- Other rocket propulsion waste products or components, such as Perchlorate and N-Nitrosodimethylamine (NDMA)

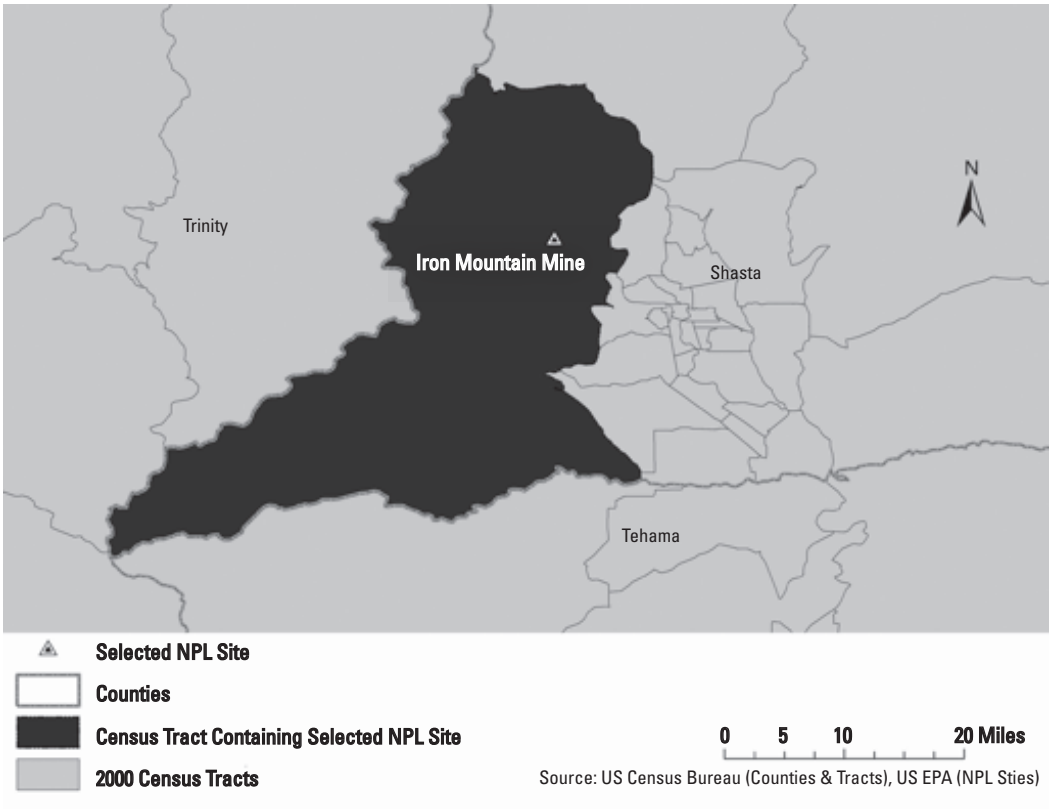
[87] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/superfund/sites/npl/ca.htm (follow "list of all NPL Sites in California, by County" hyperlink, then follow "Aerojet General Corp." hyperlink) (updated Nov. 8, 2005).

Soil:

- VOCs
- Perchlorate
- Metals including arsenic, beryllium, cadmium, chromium, cobalt, copper, lead, nickel and zinc

Iron Mountain Mine

Shasta County, California
HRS Score: 56.16



Demographic Profile

Census Tract No.: 0124
Total Population: 3,863
Median Age: 43.8
Children 9 and under: 387
Persons 75 and older: 204
Percent Minority: 8.4
Percent Hispanic: 3.6
Median Household Income in 1999: $41,607

Site Description[88]

Added to the NPL on September 8, 1983, Iron Mountain Mine (IMM) is a 4,400-acre site that was mined for iron, silver, gold, copper, zinc and pyrite from the 1860s until 1963. Currently, underground mine workings, waste rock dumps, piles of mine tailings and an open mine pit remain at the site. Historic mining activity has fractured the mountain, exposing minerals to surface water, rain and oxygen. As a result, sulfuric acid formed and runs through the mountain, leaching copper, cadmium, zinc and other heavy metals into surface water. These contaminants are then channeled into Spring Creek Reservoir and are released into Keswick Reservoir periodically to coincide with diluting releases from Shasta Dam.

About 70,000 people use surface water within three miles of IMM as a source of drinking water. Upon listing in 1983, California estimated that a daily average of 2,350 pounds of zinc, 300 pounds of copper and 50 pounds of cadmium were carried into Keswick Reservoir from the IMM site. Uncontrolled spills from Spring Creek Reservoir release harmful quantities of heavy metals into the Sacramento River. Since 1940, numerous fish kills have occurred in the Sacramento River from IMM metals. In 1994, the Winter Run Chinook Salmon was listed as an endangered species and its critical habitat includes the affected waterways. Potential health risks include ingestion of or direct contact with mine drainage and contaminant accumulation in local fish.

Contaminants Present

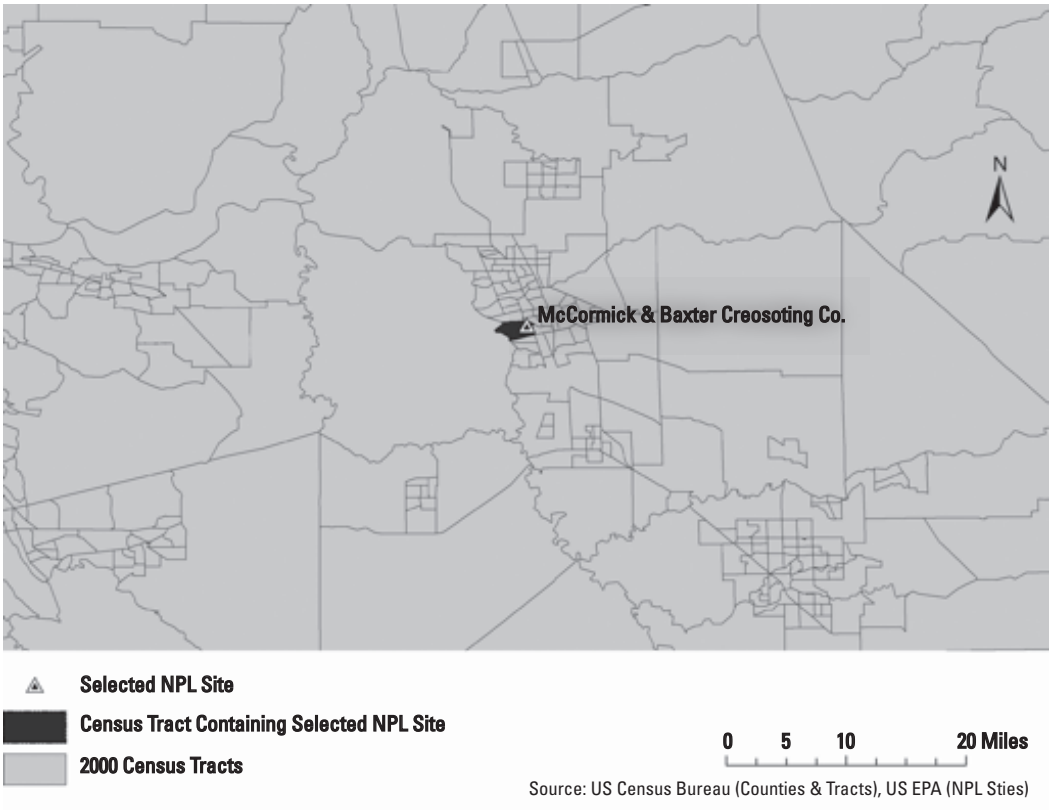
Surface water:

- sulfuric acid
- copper, zinc and cadmium

[88] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/superfund/sites/npl/ca.htm (follow "list of all NPL Sites in California, by County" hyperlink, then follow "Iron Mountain Mine" hyperlink) (updated Sept. 27, 2005).

McCormick & Baxter Creosoting Co.

San Joaquin County, California
HRS Score: 74.86



Demographic Profile

Census Tract No.: 0008
Total Population: 1,525
Median Age: 27.1
Children 9 and under: 306
Persons 75 and older: 58
Percent Minority: 71.7
Percent Hispanic: 68.3
Median Household Income in 1999: $22,348

Site Description[89]

Added to the NPL on October 14, 1992, the McCormick & Baxter Creosoting Co. site is a 29-acre former wood-preserving facility near the Port of Stockton. It is bordered on the north by Old Mormon Slough, a tributary to the San Joaquin River. People currently fish in both the Slough and San Joaquin River. Between 1942 and 1990, McCormick & Baxter treated utility poles and railroad ties with creosote, pentachlorophenol (PCP) and compounds of arsenic, chromium and copper. Wood-treating chemicals were stored in tanks and treatment waste was deposited in unlined ponds and concrete tanks.

In 1978, following a fish kill from PCB-contaminated storm water runoff traced to the site, McCormick & Baxter installed two storm water collection ponds and a perimeter dike around the site. In 1983 and 1984, soil on the site was found to be contaminated with arsenic, chromium, copper, PCP and polycyclic aromatic hydrocarbons (PAHs). The soil contamination extended to 40 feet below ground surface ("bgs"). In addition, a shallow aquifer beneath the site is contaminated to 175 feet bgs. This aquifer connects to a deeper aquifer within four miles of the site, which provides drinking water to about 97,000 people. In 1989, arsenic and PCP air particulates were detected on the site.

Approximately 105,000 people live and work within four miles of the site. Contaminants have been found in locally caught fish, which may be consumed by fishermen and their families. The contaminants also pose a threat to local aquatic organisms.

Contaminants Present

Soil and groundwater:

- Pentachlorophenol (PCP)
- dioxin
- polycyclic aromatic hydrocarbons (PAHs) (constituents of creosote, arsenic, chromium and copper)
- non-aqueous phase liquids (NAPLs) are widespread beneath the site

[89] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/superfund/sites/npl/ca.htm (follow "list of all NPL Sites in California, by County" hyperlink, then follow "McCormick & Baxter Creosoting Co." hyperlink) (updated Jan. 27, 2006).

Operating Industries

Los Angeles County, California
HRS Score: 57.22

Demographic Profile

Census Tract No.: 4828
Total Population: 4,309
Median Age: 39.1
Children 9 and under: 462
Persons 75 and older: 364
Percent Minority: 61.1
Percent Hispanic: 46.4
Median Household Income in 1999: $46,708

Site Description[90]

Added to the NPL on June 10, 1986, the Operating Industries site is a residential, commercial, liquid and hazardous waste landfill on 190 acres in Monterey Park, California, about 10 miles east of downtown Los Angeles. Pomona Freeway bisects the site into a northern 45-acre portion and a southern 145-acre portion. The landfill's leachate (liquid that percolates through the waste) contains several contaminants, including vinyl chloride, benzene-type compounds, tetrachloroethylene and heavy metals.

The Operating Industries site is adjacent to a large residential area. About 23,000 people live and use wells within three miles of the site as a source of drinking water, and 2,100 people live within 1,000 feet of the landfill. Potential health threats include gas inhalation and direct contact or accidental ingestion of contaminated groundwater, soils or leachate. There is also the potential for explosion or fire.

Contaminants Present

Air, groundwater, soil & leachate:

- various organic and inorganic compounds

Air:

- various organic compounds

[90] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/superfund/sites/npl/ca.htm (follow "list of all NPL Sites in California, by County" hyperlink, then follow "Operating Industries, Inc." hyperlink) (updated Jan. 27, 2006); and NPL Site Narrative, *available at* http://www.epa.gov/superfund/sites/npl/nar932.htm.

STRINGFELLOW

Riverside County, California
HRS Score: 61.4

Demographic Profile

Census Tract No.: 0401
Total Population: 8005
Median Age: 28.7
Children 9 and under: 1,491
Persons 75 and older: 262
Percent Minority: 52.5
Percent Hispanic: 58.4
Median Household Income in 1999: $43,132

Site Description[91]

Added to the NPL on September 8, 1983, the 17-acre Stringfellow site is located in a canyon near the Southern California town of Glen Avon and served as a hazardous waste disposal facility from 1956 until 1972. During this period, over 34 million gallons of waste, mostly from metal finishing, electroplating and pesticide production, were deposited in surface evaporation ponds. To decrease the volume of wastes in the ponds, spray evaporation procedures were used. In 1969 and again in 1978 excessive rainfall caused the disposal ponds to overflow.

As a result, the soil was contaminated with pesticides, spent acid, PCBs, sulfates and heavy metals. Over the years, heavy rains caused overflow and contamination of nearby water bodies with VOCs and several heavy metals, including cadmium, nickel, chromium and manganese. This contaminated groundwater plume potentially affected private drinking water wells for approximately 10,000 nearby residents, but since 1989, the community has received water from public utilities and no longer relies on groundwater. The original disposal area was covered by a clay cap, fenced and guarded by security services.

Contaminants Present

Groundwater:

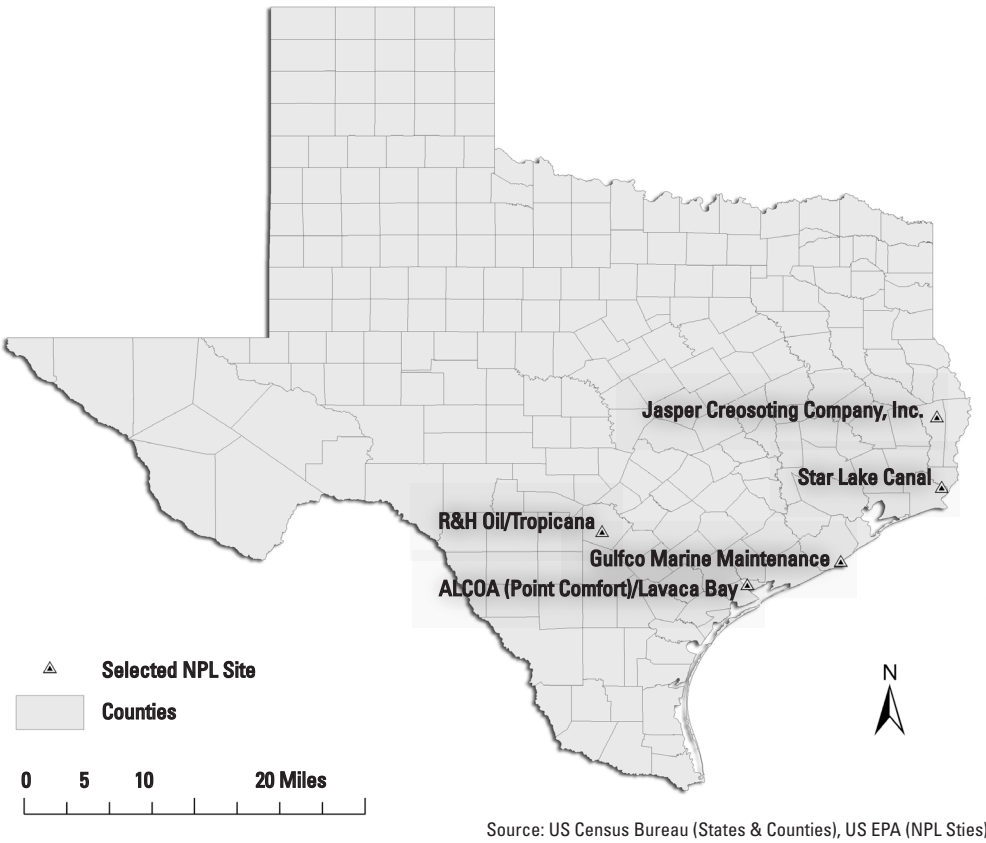
- VOCs
- cadmium
- nickel
- chromium
- manganese

Soil:

- pesticides
- polychlorinated biphenyls (PCBs)
- sulfates
- heavy metals

[91] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/superfund/sites/npl/ca.htm (follow "list of all NPL Sites in California, by County" hyperlink, then follow "Stringfellow" hyperlink) (updated Oct. 26, 2005).

Texas

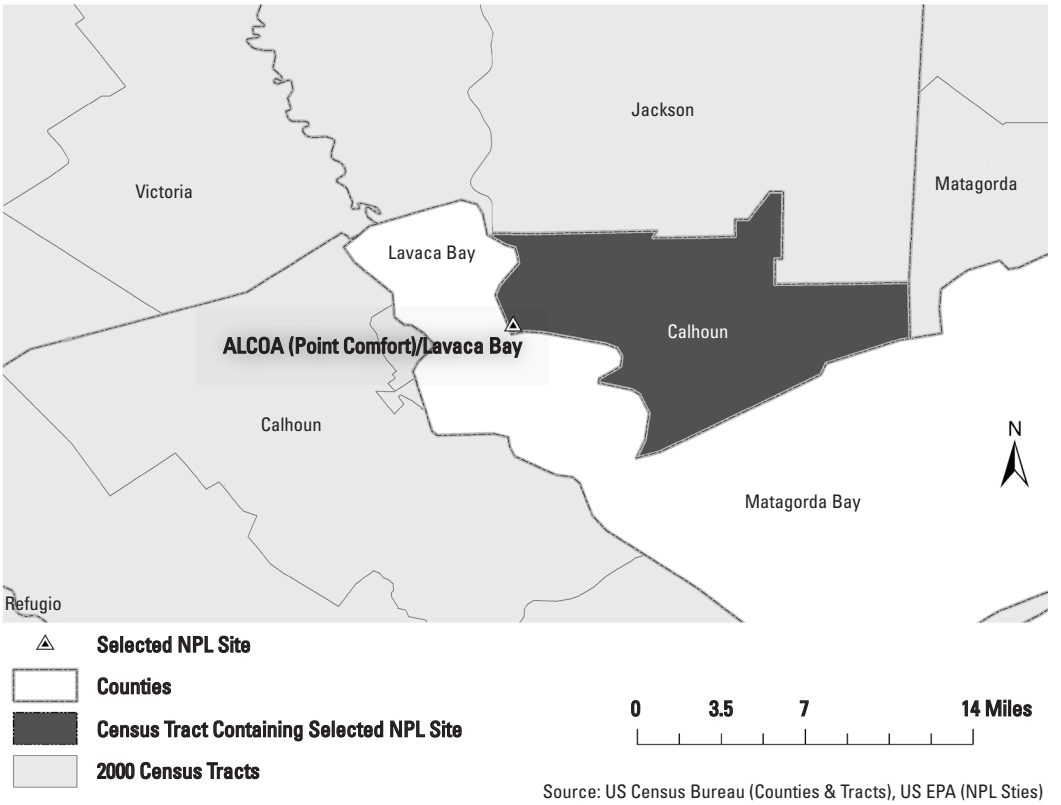


Source: US Census Bureau (States & Counties), US EPA (NPL Sties)

As of the 2000 Census, 21,009 Texans lived in the census tracts containing the five profiled NPL sites. Of those, 3,420 were children aged nine and younger. An additional 1,092 were persons aged 75 and older. In all five census tracts, the median household income for 1999 was below that for the nation.

ALCOA/Point Comfort/Lavaca Bay

Calhoun County, Texas
HRS Score: 50



Demographic Profile

Census Tract No.: 9903
Total Population: 1,515
Median Age: 38.1
Children 9 and under: 220
Persons 75 and older: 86
Percent Minority: 7.39
Percent Hispanic: 14.59
Median Household Income in 1999: $40,300

Site Description[92]

Added to the NPL on February 23, 1994, the ALCOA/Lavaca Bay site is located in Southeast Texas along the Gulf of Mexico. It consists of the ALCOA PCO Plant, an associated dredge-spoil island, and portions of Lavaca Bay and western Matagorda Bay. The plant, located on the shore of Lavaca Bay, covers about 3,500 acres in an industrial area 1.5 miles from Point Comfort and four miles from Port Lavaca. About 1,100 people live in Point Comfort and 10,000 people live in Port Lavaca. The dredge-spoil island covers about 420 acres. The island contains a 91-acre gypsum lagoon and five lagoons in a 50-acre dredge-spoil area.

In 1965, ALCOA opened a plant that produced chlorine gas and sodium hydroxide through a process that utilized mercury cathodes. During the plant's operation, wastewater containing mercury was discharged into Lavaca Bay through outfalls on the gypsum lagoon. Dredge spoils contaminated with mercury were disposed of in several areas on the site. EPA found high concentrations of mercury in sediment samples from Lavaca Bay in 1992.

The bay was used for both commercial and recreational fishing and serves as a habitat for a number of endangered aquatic and bird species. There are prohibitions on taking finfish and crabs from a part of Lavaca Bay due to the levels of mercury in the fish tissue.

Contaminants Present

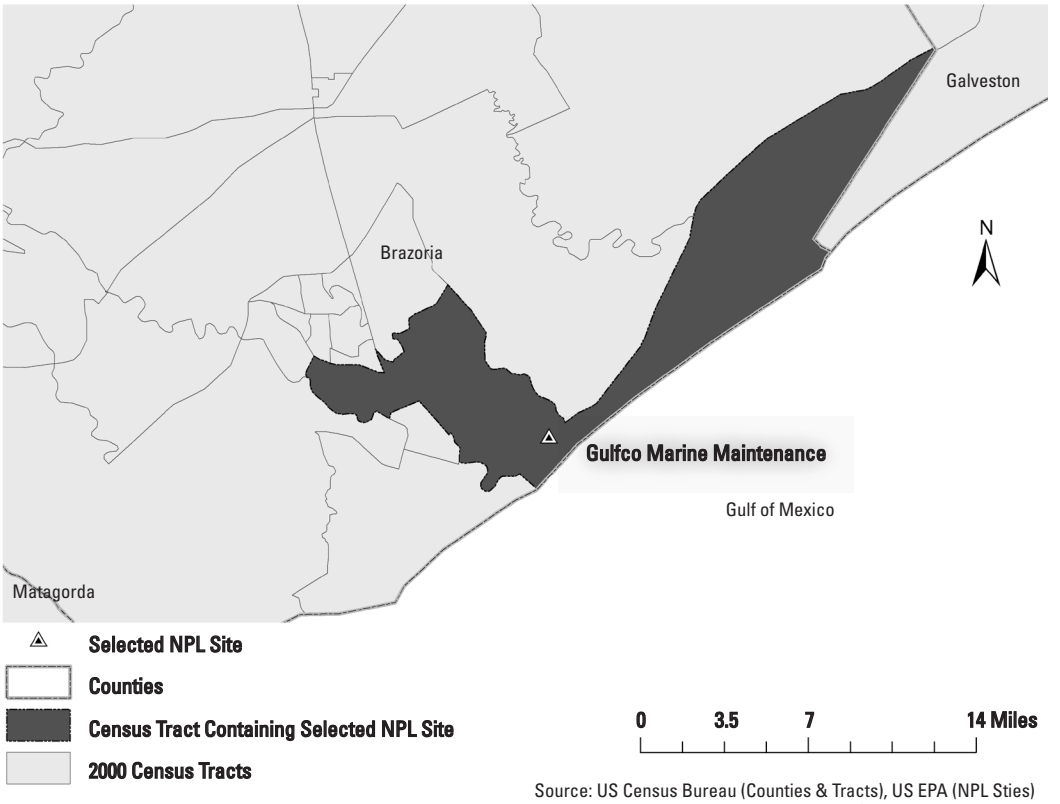
Lavaca Bay sediments:

- mercury
- PAHs

[92] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/earth1r6/6sf/pdffiles/0601752.pdf (updated Feb. 15, 2006).

Gulfco Marine Maintenance

Brazoria County, Texas
HRS Score: 50



Demographic Profile

Census Tract No.: 6642
Total Population: 2,307
Median Age: 39.3
Children 9 and under: 286
Persons 75 and older: 65
Percent Minority: 10.62
Percent Hispanic: 10.92
Median Household Income in 1999: $38,542

Site Description[93]

Added to the NPL on April 30, 2003, the 40-acre Gulfco Marine Maintenance site served as a barge cleaning, sand blasting and repair facility from 1971 until 1998. As part of site operations, residual product recovered from the barges was stored in tanks and sold. Wash waters from barge cleaning were stored in three surface impoundments in the north area until they closed in 1982. Wastewater was then stored in a floating barge or storage tanks at the site, which contain VOCs including benzene and chloroform.

Other contaminants present include PAHs, pesticides, chlorinated hydrocarbons and metals. Direct contact with these chemicals or contaminated soils poses potential health risks. The contaminants also pose environmental risks to the adjacent wetlands via surface runoff or contaminated groundwater migration. Approximately 78 people live within one square-mile of the site and 3,392 people live within 50 square miles.

Contaminants Present

Surface storage tanks:

- benzene,
- chloroform,
- dichloroethane,
- trichloroethylene

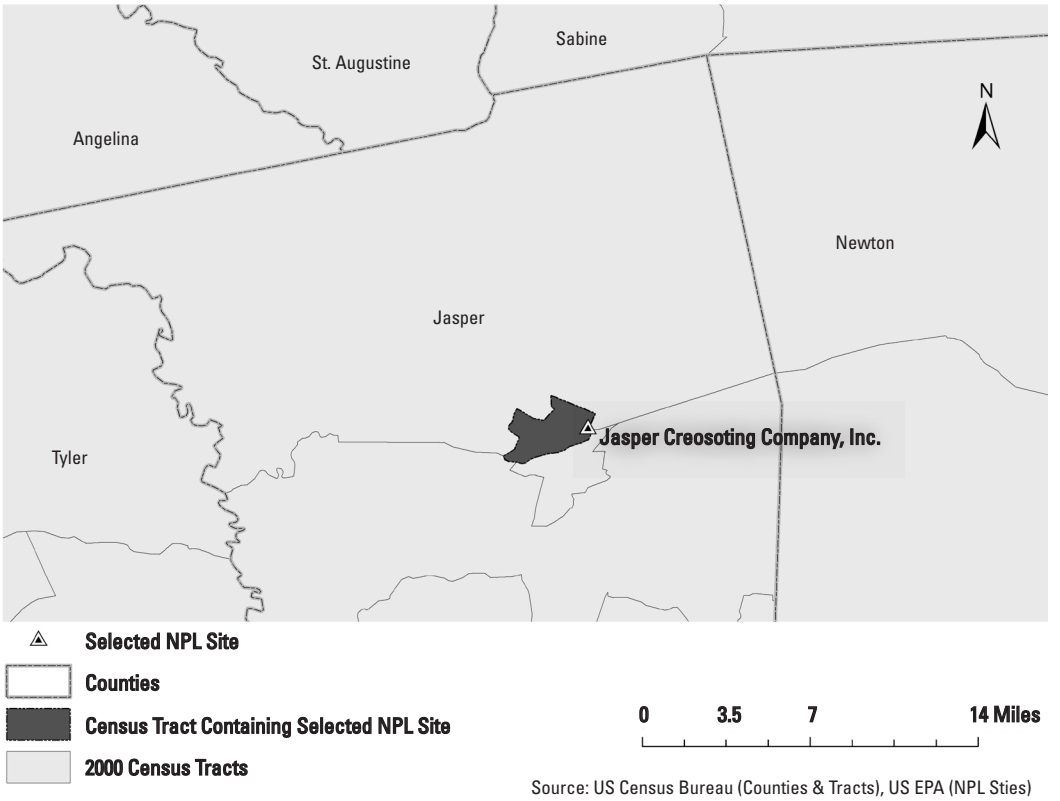
Elsewhere:

- PAHs
- Pesticides
- chlorinated hydrocarbons
- metals

[93] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/earth1r6/6sf/pdffiles/0602027.pdf (updated Feb. 2006).

Jasper Creosoting Co.

Jasper County, Texas
HRS Score: 50



Demographic Profile

Census Tract No.: 9502
Total Population: 3,685
Median Age: 37.3
Children 9 and under: 543
Persons 75 and older: 261
Percent Minority: 44.48
Percent Hispanic: 7.06
Median Household Income in 1999: $27,926

Site Description[94]

Added to the NPL on July 28, 1998, Jasper Creosoting is a former wood treatment facility that utilized coal-tar creosote and PCP. Wood treatment operations contaminated the soil, surface water and sediment on the site (including a wetland area) with PAHs, PCP and dioxins/furans. The site occupies 11 acres of a 21-acre tract and is surrounded by suburban and rural land uses.

The population of the City of Jasper is about 8,247 people and approximately 1,100 people live within a one-mile radius of the site. The site is located on the outcrop of the Jasper Aquifer, a 1,200-foot deep aquifer that serves as the primary source of drinking water for residential users. There are 27 drinking water wells located within four miles of the site.

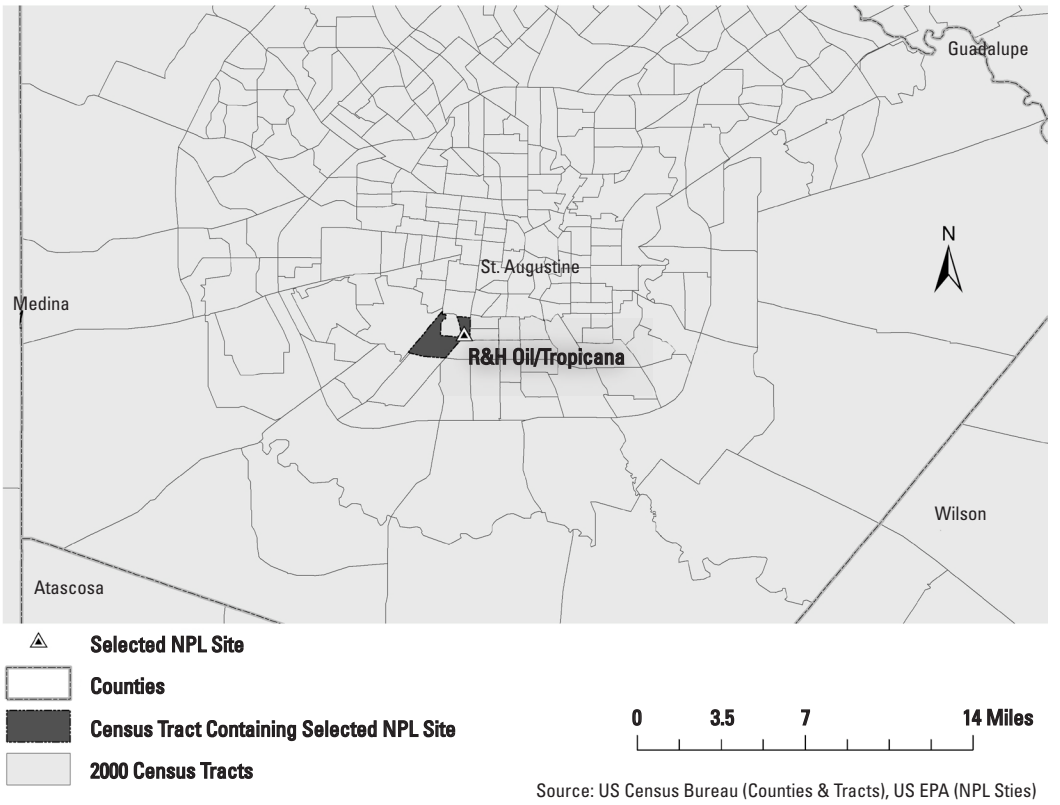
Contaminants Present

- creosote
- semi-volatile organic compounds (SVOCs)
- PAHs
- PCP
- dioxins/furans

[94] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/earth1r6/6sf/pdffiles/0601735.pdf (updated Feb. 2006).

R&H Oil/Tropicana

Bexar County, Texas
HRS Score: 50



Demographic Profile

Census Tract No.: 1609
Total Population: 8,292
Median Age: 27.6
Children 9 and under: 1,602
Persons 75 and older: 362
Percent Minority: 39.58
Percent Hispanic: 93.96
Median Household Income in 1999: $24,200

Site Description[95]

Proposed to the NPL on June 14, 2001, this seven-acre site has not yet been added to the final NPL. The site contains an inactive petroleum refinery and a gasoline blending facility in a densely populated area of San Antonio, Texas. Several spills and other releases of petroleum-related waste have contaminated groundwater and threatened nearby municipal drinking water wells.

Petroleum refining operations occurred at the site from 1938 to 1978. The refinery produced petroleum products including gasoline, fuel oils and ink oil. The site was briefly used to blend gasoline in 1988 and 1989. During this time, ethanol and various gasoline components were blended for sale. At the time the site was proposed to the NPL, structures remaining on the site included 40 above ground storage tanks, piping, dozens of drums, a machine used to separate oil and water, an earthen sump and several areas of contaminated soil. Sludge and tar were present around the tanks and separator. Drums contained combustible or flammable liquids, acid, oil mixtures and chlorinated solvents. An EPA-funded removal action to address these items was completed as of March, 2002.[96] Remedial action has not yet commenced.[97]

A plume of contaminated groundwater floats in an aquifer beneath the site. The plume includes benzene, toluene, arsenic, barium and zinc. Although the contaminated aquifer is not currently used as a water supply, it is underlain by the Edwards aquifer, which is one of the most permeable and productive Karst aquifers in the United States. The Edwards aquifer has been designated as a sole-source water supply for San Antonio. Karst aquifers are susceptible to the natural creation of underground cavities and channels and, as such, are extremely vulnerable to contaminant migration.

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[95] Site description and contaminant information obtained from the pre-cleanup NPL site narrative, *available at* http://www.epa.gov/superfund/sites/npl/tx.htm (follow "list of all NPL Sites in Texas, by County" hyperlink, then follow CERCLIS ID (numeric) hyperlink for "R&H Oil/Tropicana") (updated March 2, 2006).

[96] Information on cleanup progress and funding obtained from EPA's *List 9 – Active CERCLIS Sites*, Region 6 at 392-93 (December 2005). List 9 and other Superfund products may be obtained in CD format without cost by submitting orders online, *at* http://www.epa.gov/superfund/sites/phonefax/products.htm.

[97] *Id*.

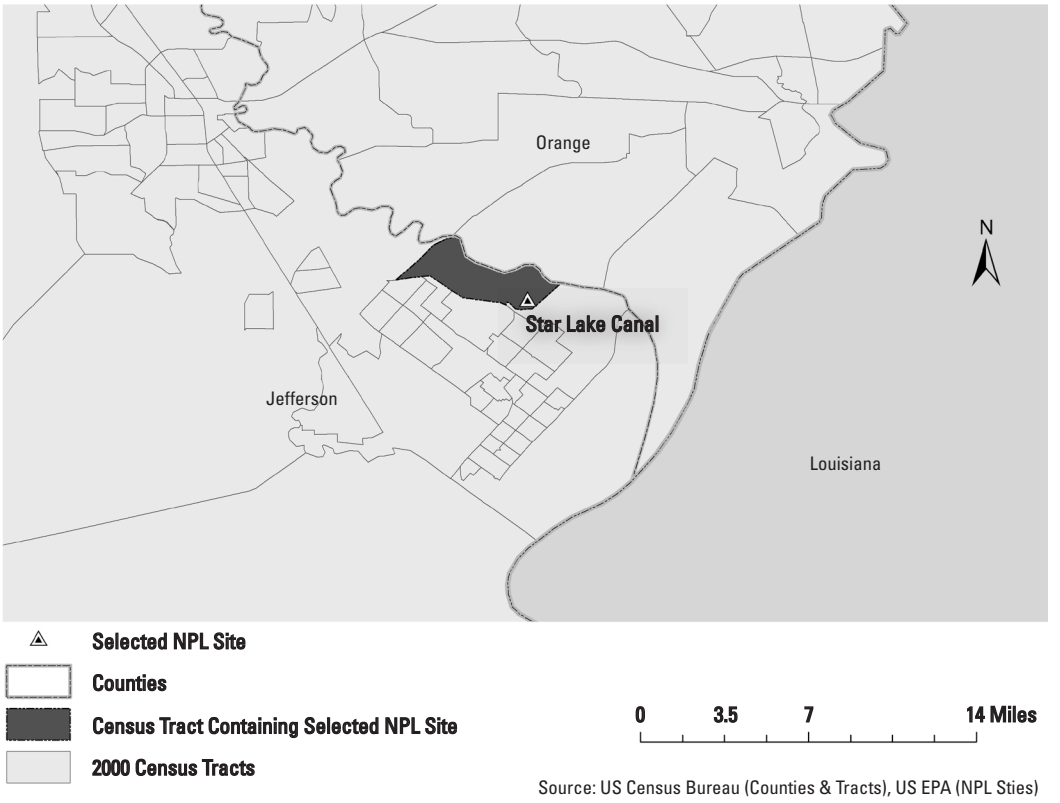
Contaminants Present

Ground water:

- Benzene
- Toluene
- Ethylbenzene
- 2-Methyl Naphthalene
- Naphthalene
- Xylenes
- arsenic
- barium
- zinc

Star Lake Canal

Jefferson County, Texas
HRS Score: 50



Demographic Profile

Census Tract No.: 0108
Total Population: 5,210
Median Age: 35.2
Children 9 and under: 769
Persons 75 and older: 318
Percent Minority: 4.32
Percent Hispanic: 5.68
Median Household Income in 1999: $41,890

Site Description[98]

Added to the NPL on July 27, 2000, this site consists of the lengths of two industrial canals — Star Lake Canal and Jefferson Canal — that were constructed in the late 1940s as industrial wastewater and storm water outfalls. The canals are currently utilized for industrial and storm water purposes by local chemical and other manufacturing facilities.

Hazardous substances, including chromium, copper, PAHs and PCBs have migrated or could potentially migrate to Molasses Bayou, Star Lake Canal, Neches River, Sabine Lake and their associated wetlands. Contaminated surface water sediments have been found in the Molasses Bayou wetlands, which are known as habitat for the white-faced ibis, a state-designated threatened species. Toxaphene and PCP have also been found in the sediments of the Jefferson Canal. Moreover, surface water flows from the canals down Neches River to Sabine Lake, which is used as a fishery. In 1996, Sabine Lake produced over one million pounds of fish and shellfish.

Contaminants Present:

Canal Sediments:

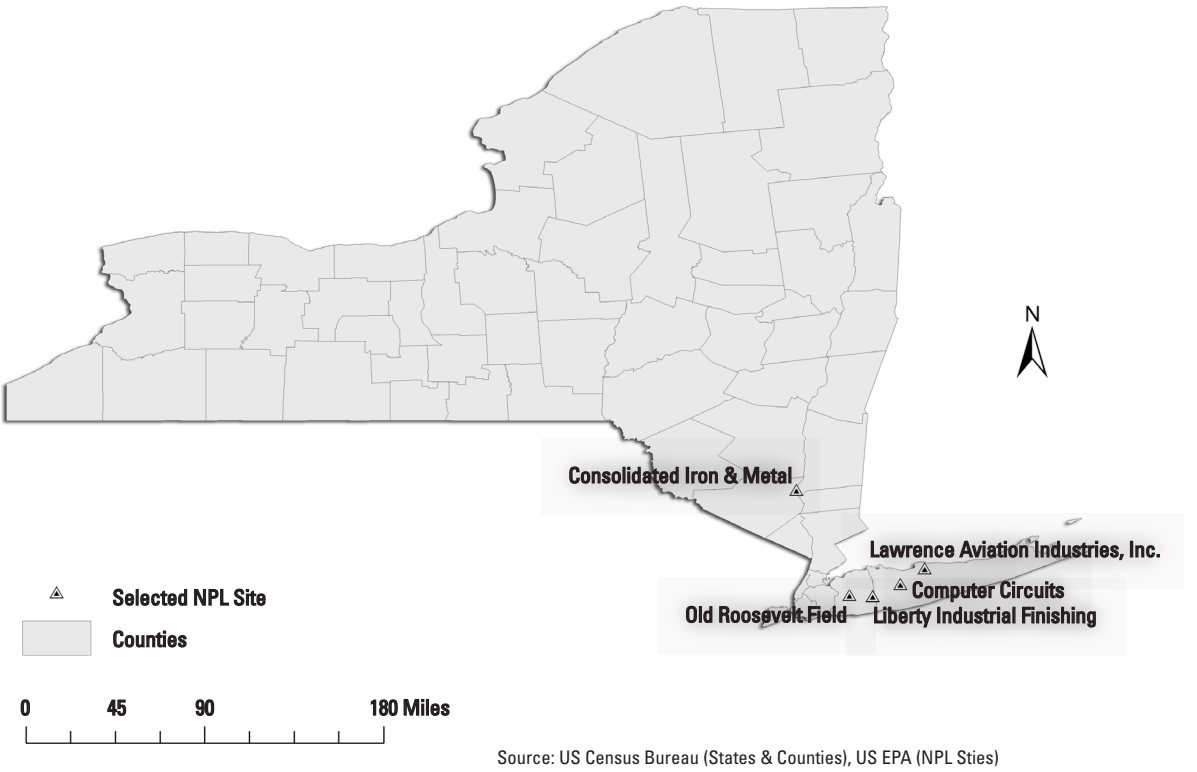
- chromium
- copper
- PAHs
- PCBs

Molasses Bayou Wetlands:

- copper
- PAHs
- pesticides

[98] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/earth1r6/6sf/pdffiles/0605043.pdf (updated Feb. 2006).

New York



Source: US Census Bureau (States & Counties), US EPA (NPL Sties)

As of the 2000 Census, 22,790 New Yorkers lived in the census tracts containing the five profiled NPL sites. Of those, 3,767 were children aged nine and younger. An additional 1,170 were persons aged 75 and older. Median household income in 1999 was below that of the nation in one of the five census tracts.

Computer Circuits

Suffolk County, New York
HRS Score: 50

Demographic Profile

Census Tract No.: 1352.06
Total Population: 1,844
Median Age: 40.7
Children 9 and under: 212
Persons 75 and older: 61
Percent Minority: 7.86
Percent Hispanic: 4.12
Median Household Income in 1999: $78,725

Site Description[99]

Added to the NPL on May 10, 1999, the Computer Circuits site consists of a one-story building (about 0.4 acres) on a 1.7-acre lot in a mixed industrial and commercial area. Computer Circuits occupied the building between 1969 and 1977, where it manufactured printed circuit boards for military and commercial applications. Waste liquids from this process were discharged into six cesspools near the building.

Sampling of the cesspools found copper and lead in quantities above permit levels. The cesspools were excavated and backfilled in 1976 and 1977. A 1976 inspection revealed that the site was littered with broken barrels, spilled piles of chemicals and blue and green sludges. Groundwater samples from monitoring wells had significant levels of copper and VOCs.

The site overlies the Upper Glacial/Magothy aquifer system. All nearby residents obtain drinking water from public-supply wells, 60 of which are located within four miles of the site. Exposure to contaminated groundwater through direct contact, ingestion or inhalation may pose a health threat. No private wells are allowed.

Contaminants Present

Groundwater:

- VOCs
- TCE
- inorganics

[99] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/region02/superfund/npl/0202636c.pdf.

Consolidated Iron & Metal

Orange County, New York
HRS Score: 50

Demographic Profile

Census Tract No.: 0004
Total Population: 5,587
Median Age: 25.8
Children 9 and under: 1,278
Persons 75 and older: 173
Percent Minority: 74.15
Percent Hispanic: 23.27
Median Household Income in 1999: $25,016

Site Description[100]

Added to the NPL on June 14, 2001, Consolidated Iron and Metal is a seven-acre inactive car and scrap metal junkyard bordering the Hudson River in a mixed industrial, commercial and residential area. Scrap metal processing and storage took place at the site for about 40 years, during which time various scrap metals were received, including whole automobiles, automobile engines, transmissions and batteries, keypunch machines, computer parts, appliances and transformers. A smelter operated on the site between 1975 and 1995 and melted aluminum and other materials, resulting in ash/slag byproduct that is contaminated with lead. Oil and other wastes on facility soils and in storm water were discharged into the Hudson River without testing or permits.

Prior to an EPA clearing operation in 2003, the site contained: a tire pile; a staging area and smelter; a compactor and metal shear; office space and garages; and various scrap metal piles. Although the removal action eliminated the immediate risks to nearby residents (such as dispersal of windblown contaminants or propagation of West Nile virus), surface and subsurface soils on the site are contaminated, as is the Hudson River adjacent to the site.

Contaminants Present

Surface and subsurface soils:

- VOCs and SVOCs
- pesticides
- PCBs
- metals

Hudson River:

- PCBs
- metals

[100] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/region02/superfund/npl/0204175c.pdf.

Lawrence Aviation Industries

Suffolk County, New York
HRS Score: 50

Demographic Profile

Census Tract No.: 1582.02
Total Population: 7527
Median Age: 35.9
Children 9 and under: 1,111
Persons 75 and older: 359
Percent Minority: 11.58
Percent Hispanic: 9.10
Median Household Income in 1999: $57,330

Site Description[101]

Added to the NPL on February 4, 2000, this 160-acre site was used to manufacture titanium sheeting for the aeronautics industry. It sits on a topographic high point such that groundwater flows toward Port Jefferson Harbor, an outlet to Long Island Sound. Groundwater from the underlying Upper Glacial/Magothy aquifer is the only source of drinking water in the vicinity. Forty-seven public supply wells serve an estimated 120,500 people within four miles of the site.

Past disposal practices and releases from leaking drums resulted in contamination of soil and groundwater. For example, in 1980 the company crushed over 1,600 drums containing TCE, PCE, acid sludges, salt wastes, oils and others wastes and allowed the liquid contents to spill onto unprotected soil. Numerous discharges to the ground surface and two unlined lagoons also occurred. Monitoring wells on the site's perimeter and nearby residential wells have shown that TCE, PCE, nitrates and fluoride contaminate the groundwater.

Contaminants Present

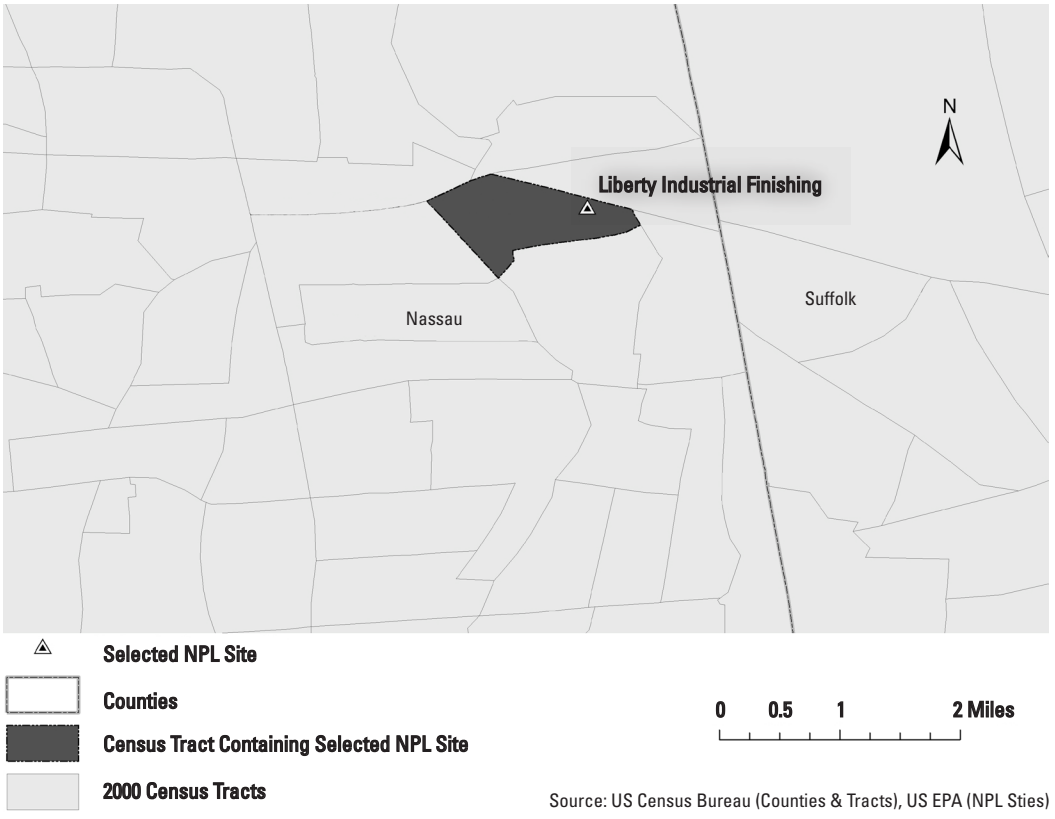
Groundwater:

- TCE
- PCE
- nitrates
- fluoride

[101] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/region02/superfund/npl/0201335c.pdf.

Liberty Industrial Finishing

Nassau County, New York
HRS Score: 50.65



Demographic Profile

Census Tract No.: 5205.01
Total Population: 3,728
Median Age: 38.2
Children 9 and under: 517
Persons 75 and older: 226
Percent Minority: 7.56
Percent Hispanic: 6.12
Median Household Income in 1999: $69,482

Site Description[102]

Added to the NPL on June 10, 1986, this 30-acre site is located in the Village of Farmingdale, Town of Oyster Creek. During World War II and the Korean War, the site was used for airplane parts manufacturing and associated metal finishing activities. In the 1950s, it was converted to an industrial park. Thereafter, a variety of industrial operations were conducted, including metal plating and fiberglass product manufacturing.

Since the 1980s, the site has been used for light manufacturing and warehousing. A groundwater plume contaminated with organic and inorganic substances underlies the former industrial area and extends approximately one mile to the south. Portions of the Massapequa Nature Preserve, located about one-half mile away, are also contaminated. A separate plume of organic contamination originates to the north of the site and eventually commingles with the other plume.

There are no private drinking wells in the site vicinity. People living nearby obtain their drinking water from local water utilities, which routinely test their supplies to ensure compliance with state and federal drinking water standards. In 1998, under EPA oversight, the PRPs installed "sentinel" wells between the Liberty site and drinking water wells of the local water districts. The "sentinel" wells serve as an early warning system should any plume of contamination migrate close to the well fields.

Contaminants Present

Groundwater and soils:

- cadmium
- chromium
- VOCs (including dichloroethene, trichloroethene and tetrachloroethene)
- PCBs

[102] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/region02/superfund/npl/0201184c.pdf.

Old Roosevelt Field Contaminated GW Area

Nassau County, New York
HRS Score: 50

Demographic Profile

Census Tract No.: 4066
Total Population: 4,104
Median Age: 41.5
Children 9 and under: 649
Persons 75 and older: 351
Percent Minority: 5.85
Percent Hispanic: 2.63
Median Household Income in 1999: $102,525

Site Description[103]

Added to the NPL on May 11, 2000, Old Roosevelt Field Contaminated Ground Water Area is a contaminated groundwater plume located on part of Roosevelt Field, which was used for aviation activities from 1911 to 1951. Part of the field was sold for use as a racetrack. The other part reverted to use as a commercial airport until it closed in 1951.

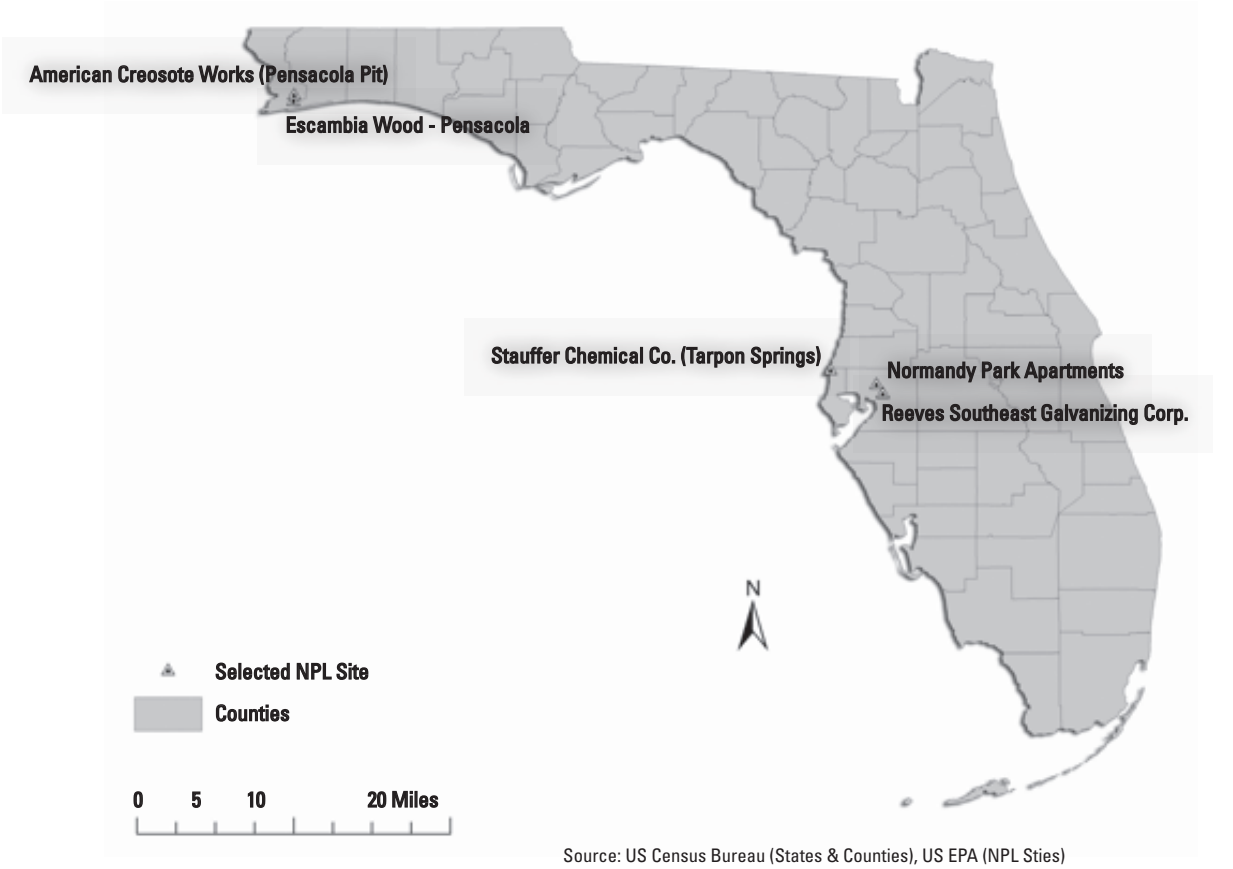
Today the Roosevelt Field Shopping Mall and Garden City Plaza occupy the former airport area. Two public supply wells were installed in 1952 and put into use in 1953. The population served by each well is about 3,400 people. Since they were first sampled in the late 1970s and early 80s, both wells have shown the presence of tetrachloroethene (PCE) and trichloroethene (TCE), and concentrations of these chemicals have increased since then. In 1987, a treatment system was installed to remove VOCs from raw water being pumped from the wells.

Contaminants Present

- PCE
- TCE

[103] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/region02/superfund/npl/0204234c.pdf.

FLORIDA

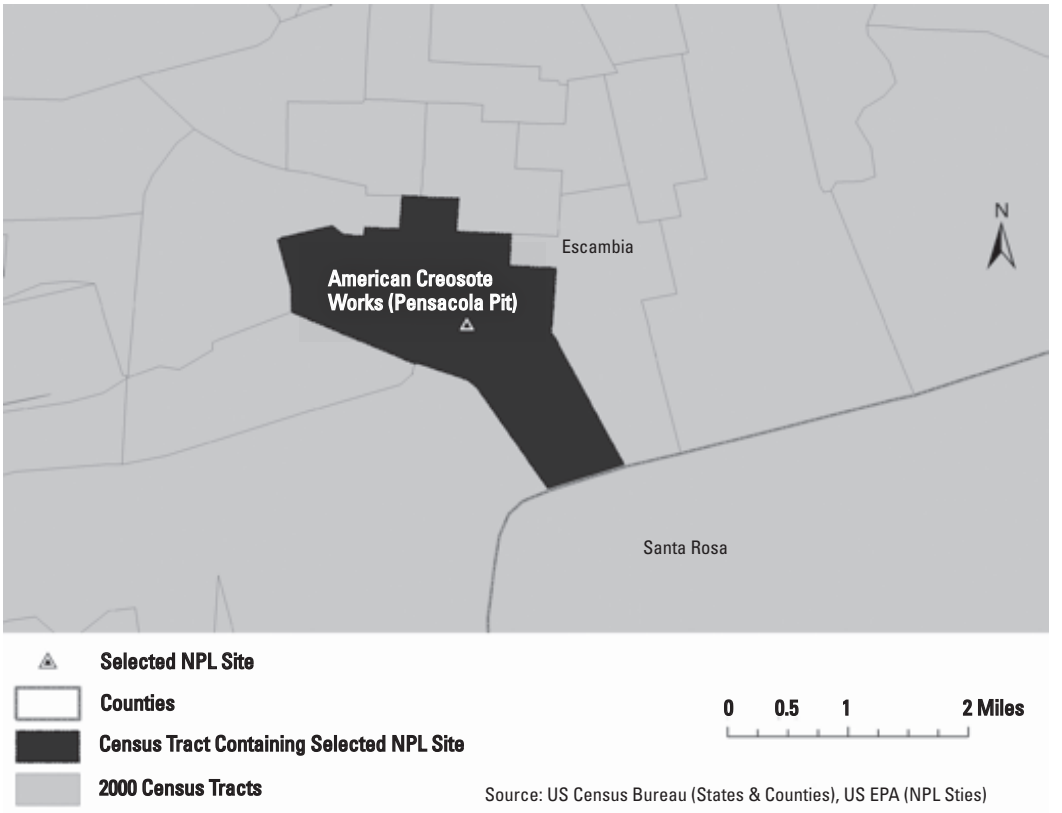


Source: US Census Bureau (States & Counties), US EPA (NPL Sties)

As of the 2000 Census, 21,517 Floridians lived in the census tracts containing the five profiled NPL sites. Of those, 2,626 were children aged nine and younger. An additional 978 were persons aged 75 and older. In three of the five census tracts, the median household income for 1999 was below that for the nation.

American Creosote Works (Pensacola Pit)

Escambia County, Florida
HRS Score: 58.41



Demographic Profile

Census Tract No.: 0003
Total Population: 3,131
Median Age: 38.3
Children 9 and under: 392
Persons 75 and older: 308
Percent Minority: 48.07
Percent Hispanic: 1.95
Median Household Income in 1999: $23,164

Site Description[104]

Added to the NPL on September 8, 1983, American Creosote Works, Inc. is an 18-acre site one-quarter mile north of where Pensacola Bay converges with Bayou Chico. From 1902 to 1981, it was operated as a wood-treating facility. Prior to 1970, the company discharged liquid process wastes into two unlined 80,000-gallon percolation ponds. Creosote was the primary preservative chemical until 1950, when pentachlorophenol (PCP) became the preferred chemical. The percolation ponds were allowed to overflow through a spillway and follow a drainage course into the nearby Bayou and Bay. Later, workers periodically drew wastewaters off the ponds and discharged them into designated "spillage areas" on the site. Additional discharges occurred when heavy rains flooded the ponds, causing them to overflow.

Currently, the site is surrounded by a predominantly residential area that is served by municipal water supplies, but numerous residents and businesses operate private irrigation wells. The soil, sediment and groundwater are contaminated mostly with VOCs, PAHs, PCP and dioxin from the former wood-treating processes.

Contaminants Present

Soil, sediment and groundwater:

- VOCs
- polycyclic aromatic hydrocarbons (PAHs)
- PCP
- dioxin

[104] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/region4/waste/npl/nplfln/acwpenfl.htm.

Escambia Wood – Pensacola

Escambia County, Florida
HRS Score: 50

Demographic Profile

Census Tract No.: 0014.01
Total Population: 5,481
Median Age: 20.4
Children 9 and under: 410
Persons 75 and older: 69
Percent Minority: 17.48
Percent Hispanic: 1.77
Median Household Income in 1999: $22,150

Site Description[105]

Added to the NPL on December 16, 1994, the Escambia Treating Company site is a 26-acre abandoned wood preserving facility that treated wood products with creosote and PCP from 1942 until it closed in 1982. After it closed, three open surface impoundments remained on the facility, along with a backfilled surface impoundment.

The site is located in a mixed industrial and residential area. Groundwater and soil on-site are contaminated with wood treating chemicals such as creosote and pentachlorophenol. The primary source of groundwater in Escambia County, the Sand-and-Gravel aquifer, lies beneath the facility. As of 1994, this aquifer served about 129,330 people. Approximately 20 public water supply wells and numerous private wells are located within four miles of the site. The nearest public supply well is one mile northeast of the site.

In 1992, EPA completed a removal action, which entailed excavation of 225,000 cubic yards of contaminated material, currently stockpiled under a secure cover on-site. In 1995, the site became part of a National Relocation Evaluation Pilot to help EPA determine when relocation should be used in addressing the health threats posed by Superfund sites. By January 2002, the government had acquired or obtained agreements to acquire all of the 170 properties in Rosewood Terrace, Oak Park and Goulding subdivisions, including 158 single family homes, a 200-unit apartment complex and 11 vacant residential lots. Over 500 persons have been relocated to comparable replacement housing in the Pensacola and surrounding areas.

Contaminants Present

Groundwater:

- PCP
- numerous other creosote constituents detected at elevated concentrations

Surface soil, subsurface soil:

- PCP
- several other organic and inorganic analytes detected

[105] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/region4/waste/npl/nplfln/escwodfl.htm; and NPL Site Narrative, *available at* http://www.epa.gov/superfund/sites/npl/nar1435.htm.

Normandy Park Apartments

Hillsborough County, Florida
HRS Score: 49.98

Demographic Profile

Census Tract No.: 0107.01
Total Population: 6,149
Median Age: 36.5
Children 9 and under: 851
Persons 75 and older: 264
Percent Minority: 22.23
Percent Hispanic: 12.72
Median Household Income in 1999: $58,607

Site Description[106]

Proposed to the NPL on February 13, 1995, the Normandy Park Apartments site has never been finalized on the NPL. From the early 1950s through 1963, Gulf Coast Recycling, Inc. operated a battery breaking and lead smelting facility at the site location. In 1963, Gulf Coast ceased operations and demolished on-site buildings. The property was used as an open dump until approximately 1968, when Gulf Coast built the Normandy Park Apartments.

The Apartments occupy 8.25 acres, with a northern adult section and a larger southern family section. Overall, 12 residential buildings house about 283 residents. Other amenities include tennis courts, a playground, swimming pools and an office building. Gulf Coast's sampling in 1992 revealed high concentrations of lead at and below the soil surface, as well as elevated concentrations of lead in groundwater.

In June 1992, Gulf Coast entered into an agreement with EPA to investigate the site and address immediate threats to the residents. With EPA oversight, Gulf Coast placed two concrete caps over contaminated soil in the northern complex and constructed a wooden deck over contaminated soil in the southern courtyard.

Contaminants Present

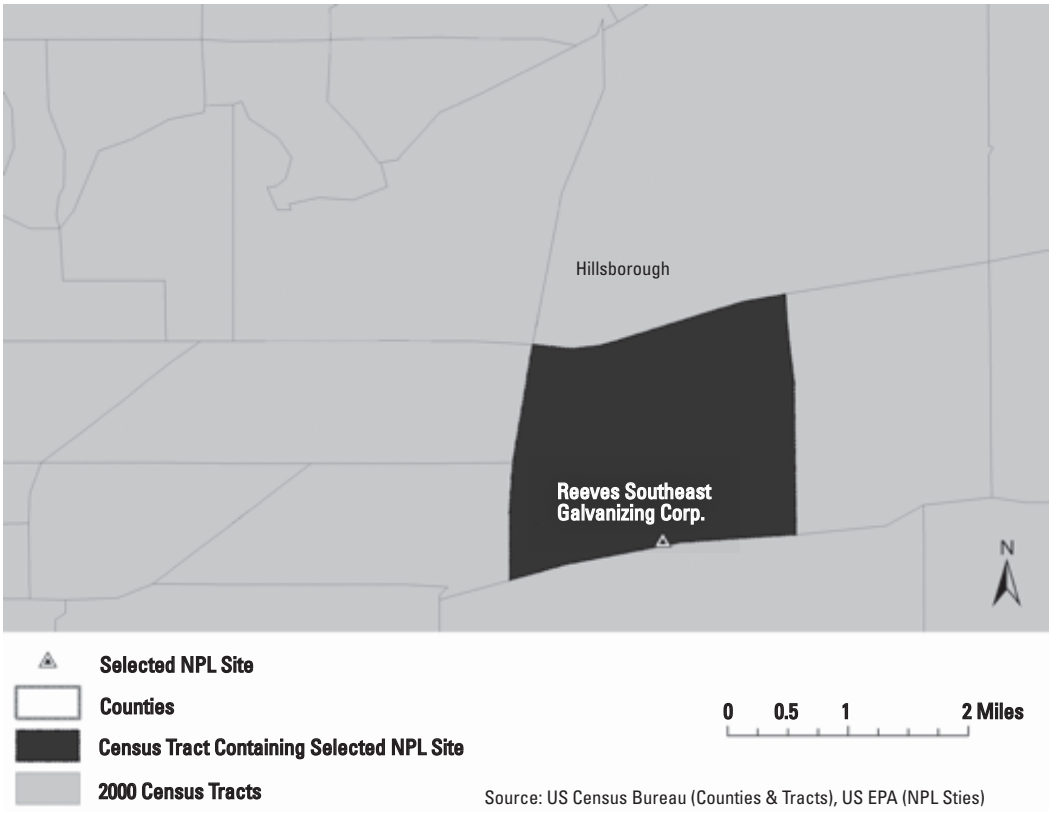
Soil and groundwater:

- lead

[106] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/region4/waste/npl/nplfls/normanfl.htm.

Reeves Southeast Galvanizing

Hillsborough County, Florida
HRS Score: 58.75



Demographic Profile

Census Tract No.: 0121.03
Total Population: 3,760
Median Age: 31.1
Children 9 and under: 617
Persons 75 and older: 110
Percent Minority: 11.30
Percent Hispanic: 9.04
Median Household Income in 1999: $33,044

Site Description[107]

Added to the NPL on September 8, 1983, this 28-acre site includes two areas: the Reeves Southeastern Galvanizing (SEG) facility (17-acres) and the Reeves Southeastern Wire (SEW) facility (11-acres). Beginning in the 1960s, the SEW and SEG facilities generated caustic, rinse, acid process and perhaps plating wastes. These wastes were neutralized and then discharged into storage ponds, contaminating both ground and surface waters.

About 56,000 people live within three miles of this site, with public water supply wells located about one mile upland. The area also includes residential neighborhoods, light manufacturing facilities, warehouses and a refuse-to-energy plant. Groundwater was contaminated with heavy metals such as zinc. Prior to EPA involvement, soil, sediment and surface water were also contaminated with heavy metals such as zinc and lead. Hillsborough County issued a notice of violation in 1974 and the company responded by upgrading its wastewater treatment facility. This system neutralized acid and removed 90 percent of the heavy metals. Sampling has shown municipal and private wells not contaminated, but people who come into contact with or accidentally ingest contaminated surface water or soils may be at risk.

Contaminants Present

Groundwater:

- heavy metals such as zinc

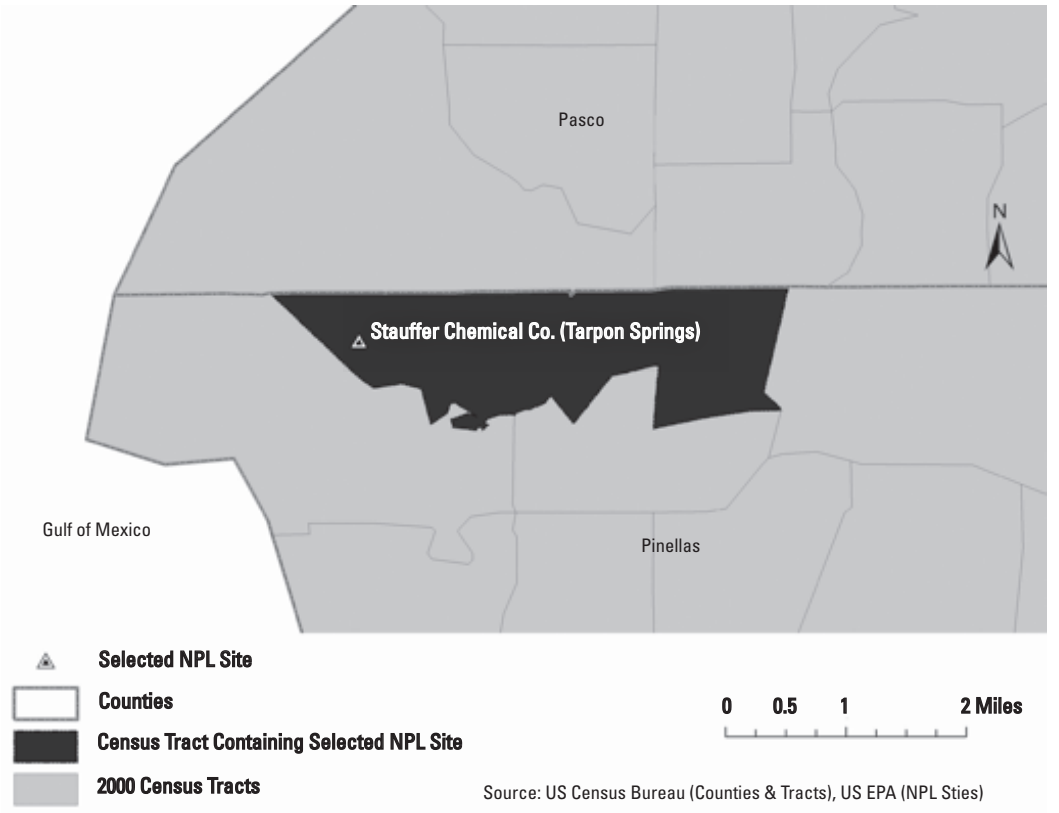
Surface water and soils:

- heavy metals, primarily zinc

[107] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/region4/waste/npl/nplfln/reevesfl.htm.

Stauffer Chemical Co. (Tarpon Springs)

Pinellas County, Florida
HRS Score: 50



Demographic Profile

Census Tract No.: 0273.08
Total Population: 2,996
Median Age: 42.7
Children 9 and under: 356
Persons 75 and older: 227
Percent Minority: 9.15
Percent Hispanic: 4.37
Median Household Income in 1999: $46,855

Site Description[108]

Added to the NPL on May 31, 1994, the 160-acre Tarpon Springs plant produced elemental phosphorous using phosphate ore mined from deposits in Florida. Victor Chemical Company constructed the plant and began production in 1947. Stauffer Chemical Company obtained the plant in 1960 and continued to manufacture elemental phosphorous until closing in 1981. Over 500,000 tons of chemical process wastes were disposed of on the site between 1950 and 1979. Stauffer removed 33,000 gallons of elemental phosphorous contained in above-ground tanks in 1997-98. However, on-site monitoring wells remain contaminated.

Currently land use surrounding the site is a combination of light industrial, residential, recreational and commercial. About 8,500 people in the Tarpon Springs area receive drinking water from 23 public wells and three private wells located within four miles of the site. Because of the depths of the aquifers, all drinking water wells within four miles of the site are potential targets.

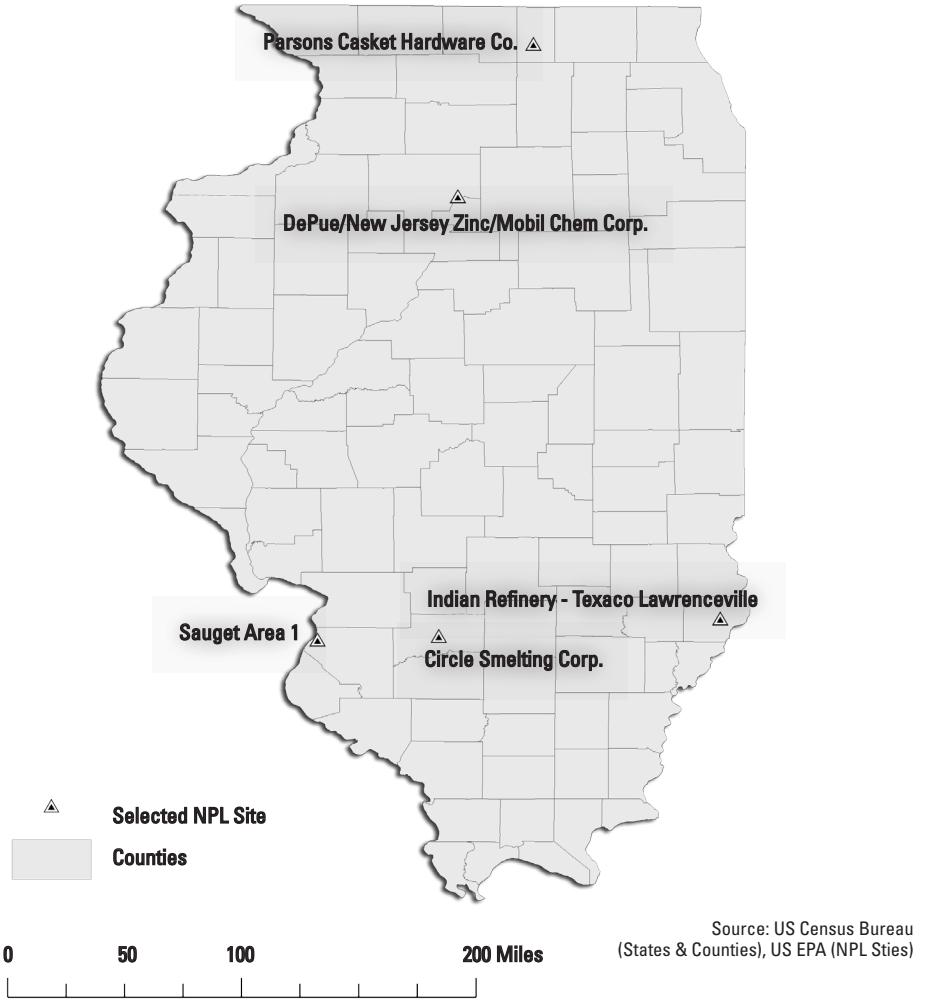
Contaminants Present

On-site soils, on-site waste ponds and ground water:

- heavy metals (barium, chromium, lead, vanadium, zinc, copper and arsenic)
- radio nuclides
- PAHs
- elemental phosphorous

[108] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/region4/waste/npl/nplfln/stautsfl.htm.

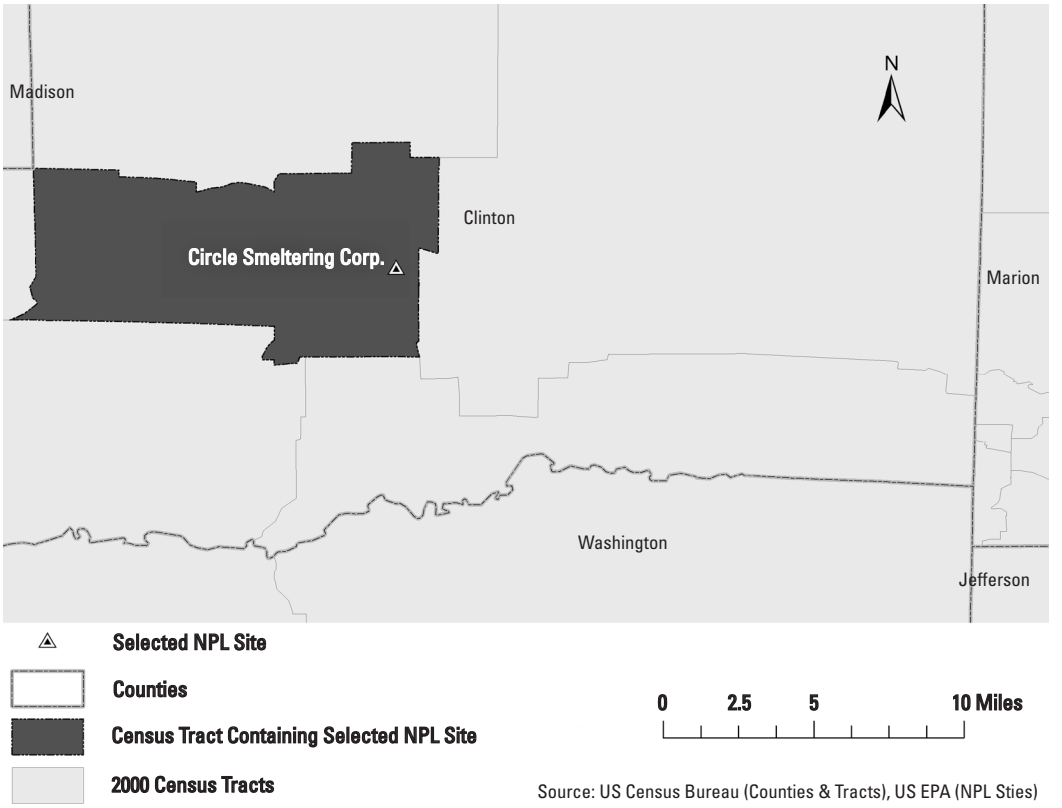
Illinois



As of the 2000 Census, 28,931 Illinoisans lived in the census tracts containing the five profiled NPL sites. Of those, 4,729 were children aged nine and younger. An additional 2,031 were persons aged 75 and older. In four of the five census tracts, the median household income for 1999 was below that for the nation.

Circle Smelting Corp.

Clinton County, Illinois
HRS Score: 70.71



Demographic Profile

Census Tract No.: 9003
Total Population: 6,427
Median Age: 35.4
Children 9 and under: 973
Persons 75 and older: 453
Percent Minority: 1.24
Percent Hispanic: 1.10
Median Household Income in 1999: $46,859

Site Description[109]

Proposed to the NPL on June 17, 1996, the Circle Smelting Corp. site has not been finalized on the NPL. In 1904, the Circle Smelting Corp. facility was constructed as a zinc smelter and began recovering zinc from scrap metals.

Three separate sources have been identified at the site: two large areas of contaminated soil and a 17-acre slag pile that has high concentrations of zinc, nickel, lead, cadmium and copper. There are also piles of residual metals and coal cinders. Surface waters were contaminated when the hazardous substances migrated to Beaver Creek. Smelting operations also generated air emissions that included metal oxides.

At the time of proposal to the NPL, an estimated 460 people lived near the site and 21 people still worked at the Circle Smelting facility. About 230 children attended a public elementary school located in the contaminated area.

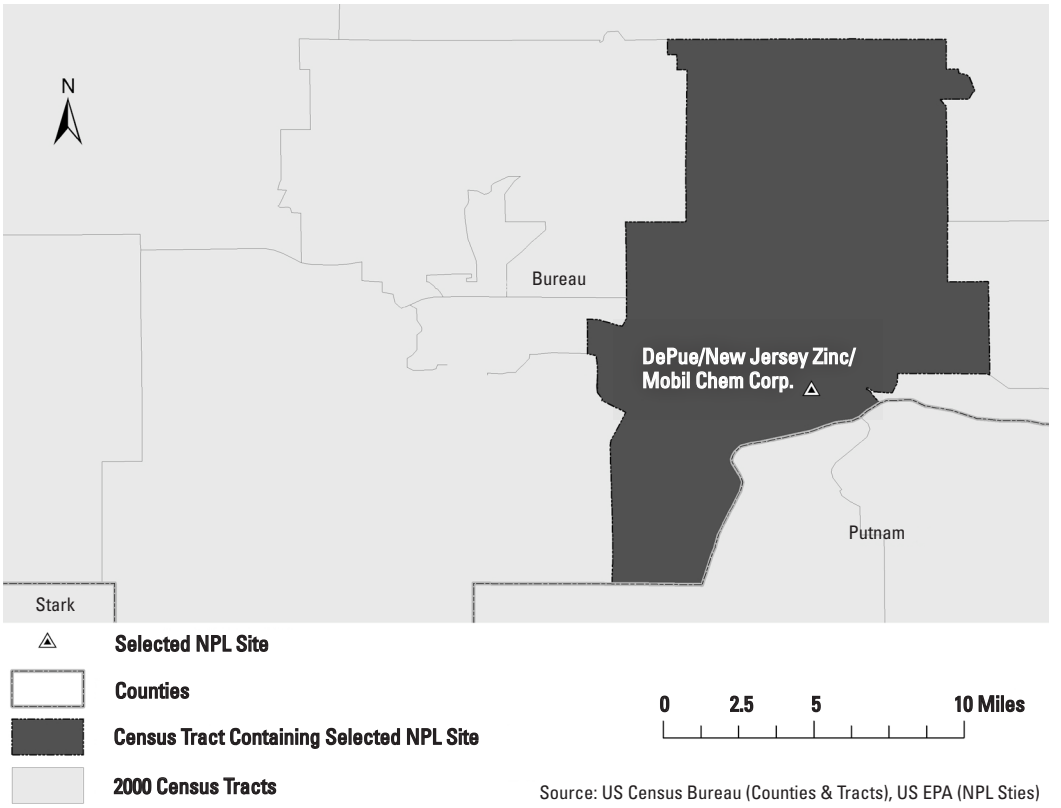
Contaminants Present

- zinc
- nickel
- lead
- cadmium
- copper

[109] Site description and contaminant information obtained from NPL Site Narrative, *available at* http://www.epa.gov/superfund/sites/npl/nar1475.htm.

DePue/New Jersey Zinc/Mobil Chem Corp.

Bureau County, Illinois
HRS Score: 70.71



Demographic Profile

Census Tract No.: 9650
Total Population: 4,168
Median Age: 36.6
Children 9 and under: 598
Persons 75 and older: 347
Percent Minority: 10.27
Percent Hispanic: 24.33
Median Household Income in 1999: $37,181

Site Description[110]

Added to the NPL on May 10, 1999, the DePue site was a zinc smelting facility that began operations in 1903 and expanded into several facilities consisting of over 860 acres. The original plant produced slab zinc, zinc dust and sulfuric acid for the automobile and appliances industries. New Jersey Zinc constructed a di-ammonium phosphate (DAP) fertilizer plant on the site in 1966. Mobil Chemical Corp. purchased a portion of the property in 1975 and took over ownership of the plants in 1985. The site had several sources of contamination, including waste piles, lagoons and cooling ponds. The plants were demolished in 1992.

Soil, surface water and groundwater are contaminated with chemicals from the plants. Elevated levels of cadmium, lead and other metals were found in residential soil samples, posing long-term health effects. DePue Lake, with its fishery, state wildlife refuge and wetlands, is also contaminated by surface water and groundwater discharges from the plants.

Contaminants Present

Soil (including nearby residential areas):

- cadmium
- lead

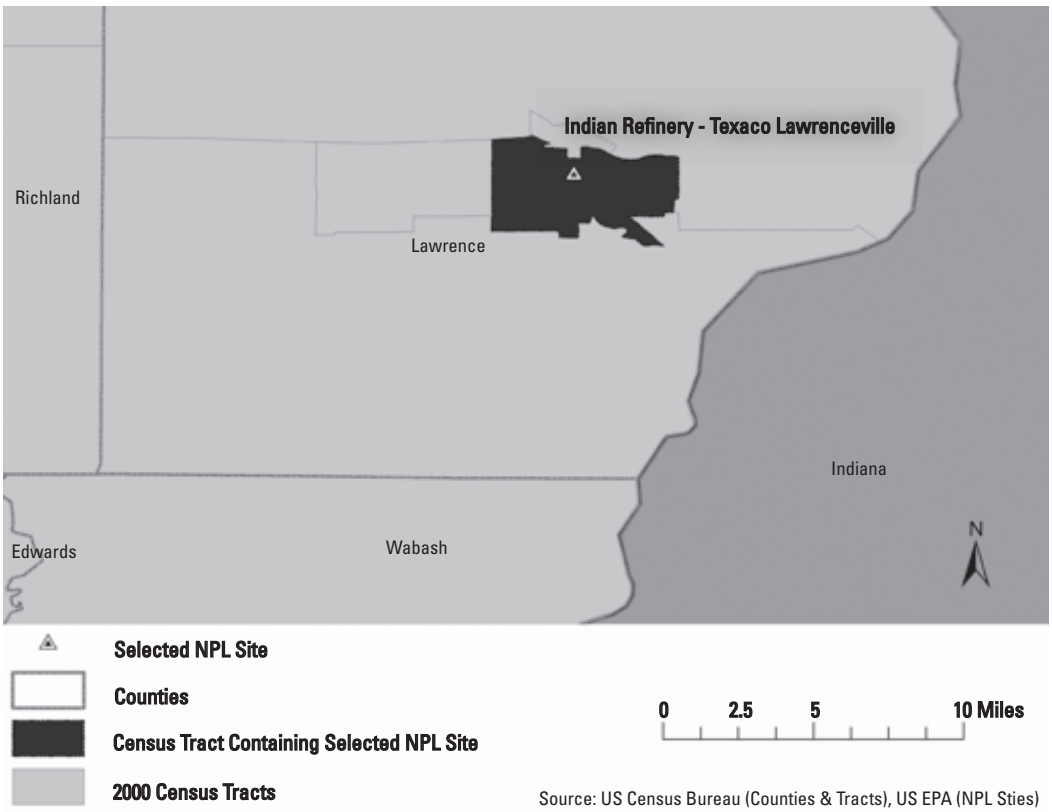
Site Source Areas:

- zinc
- lead
- arsenic
- cadmium
- chromium
- copper

[110] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/R5Super/npl/illinois/ILD062340641.htm.

Indian Refinery - Texaco Lawrenceville

Lawrence County, Illinois
HRS Score: 56.67



Demographic Profile

Census Tract No.: 9811
Total Population: 3,459
Median Age: 45.3
Children 9 and under: 354
Persons 75 and older: 591
Percent Minority: 1.88
Percent Hispanic: 1.16
Median Household Income in 1999: $30,714

Site Description[111]

Added to the NPL on December 1, 2000, this 990-acre site was operated as a refinery from the early 1900s until 1995. An ongoing oil release and associated contaminated area on the southern part of the refinery property was discovered in 1997. Subsurface oil product, floating on groundwater, was escaping through several discharge points into wetlands that are hydraulically connected to the Embarras River. As a result, most of the vegetation in the wetlands area had been killed. Residential, commercial, agricultural and natural areas surround the site.

Approximately 4,900 people are supplied with drinking water from municipal wells serving the city of Lawrenceville. People living in the Kirkwood Subdivision and in scattered housing near the site use private wells for drinking water. Sampling in 1996 and 1999 revealed that hazardous substances that were disposed of at the Indian Acres area have migrated offsite into the adjacent residential area. The waste in the residential area contained elevated levels of PAHs and metals. During demolition of the site in early 1999, wastes containing phenol and cresols were hauled from the site to the city of Lawrenceville's wastewater treatment plant. The resulting fumes and odors caused respiratory problems in nearby residents and caused sewers to back up into the residents' homes.

Contaminants Present

Waste in residential area:

- low pH (characteristic of lube oil acid sludge and lube oil filter cake)
- PAHs
- metals

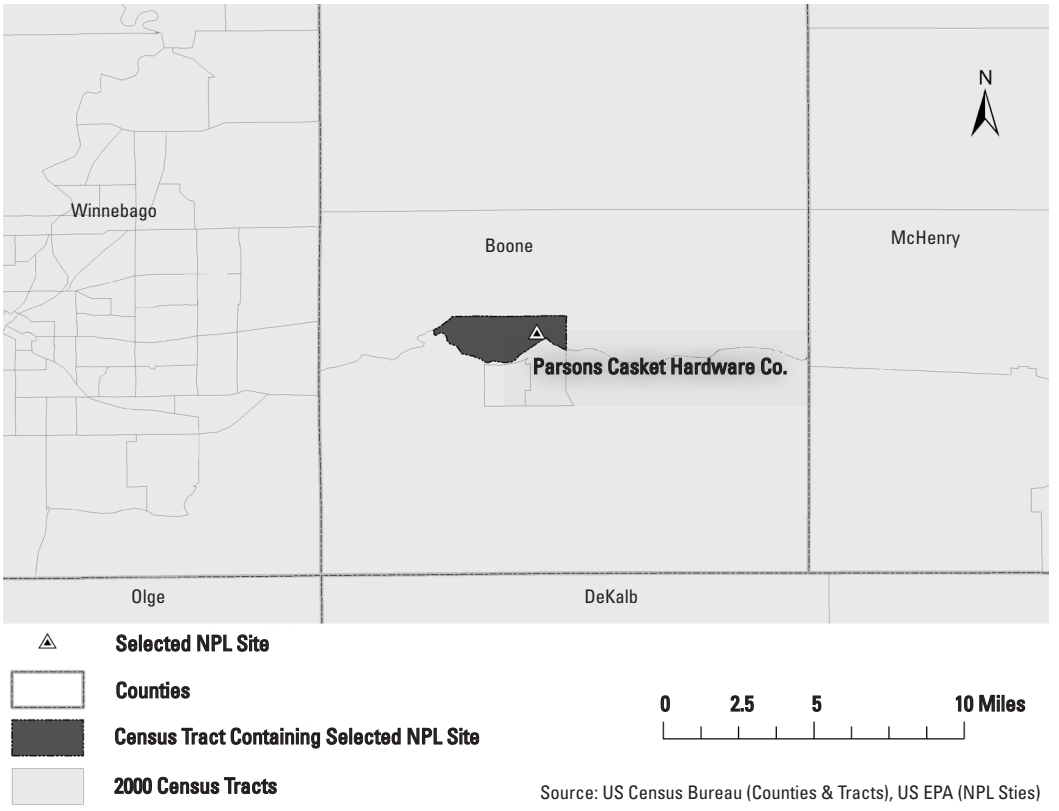
Oil releases into wetlands:

- benzene
- toluene
- xylene
- methyl napthalene
- napthalene
- trimethylbenene 1,3,5
- total petroleum hydrocarbons

[111] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/R5Super/npl/illinois/ILD042671248.htm.

Parsons Casket Hardware Co.

Boone County, Illinois
HRS Score: 55.58



Demographic Profile

Census Tract No.: 0101
Total Population: 7,725
Median Age: 29.4
Children 9 and under: 1,453
Persons 75 and older: 358
Percent Minority: 20.47
Percent Hispanic: 26.64
Median Household Income in 1999: $39,041

Site Description[112]

Added to the NPL on July 22, 1987, this six-acre site was used as an electroplating facility from the 1920s until the owner filed for bankruptcy in 1982 and is now bordered by residential and industrial land uses. Wastes from the electroplating operations were stored in drums, aboveground and underground storage tanks and an unlined surface impoundment. Wastes included electroplating sludge, cyanide, bronze, nickel, brass sludge and associated solvents.

In 1982, the state of Illinois found that about 120 drums of various sizes were stored inside and outside the manufacturing building, many dented, corroded, leaking or uncovered. The storage tanks contained about 4,800 gallons of waste, while the unlined lagoon contained 166,500 gallons of liquid waste and 1,230 cubic yards of sludge. The state removed these wastes in 1985.

Despite this effort, sampling in 1987 indicated that groundwater was contaminated with VOCs. This groundwater is the sole source of drinking water for the 15,200 residents of the city of Belvidere, approximately 6,000 of which live within a one-mile radius of the site. The closest residence is less than one-tenth of a mile away, and a municipal water supply well is about 1,500 feet from the site.

Contaminants Present

Groundwater:

- VOCs.

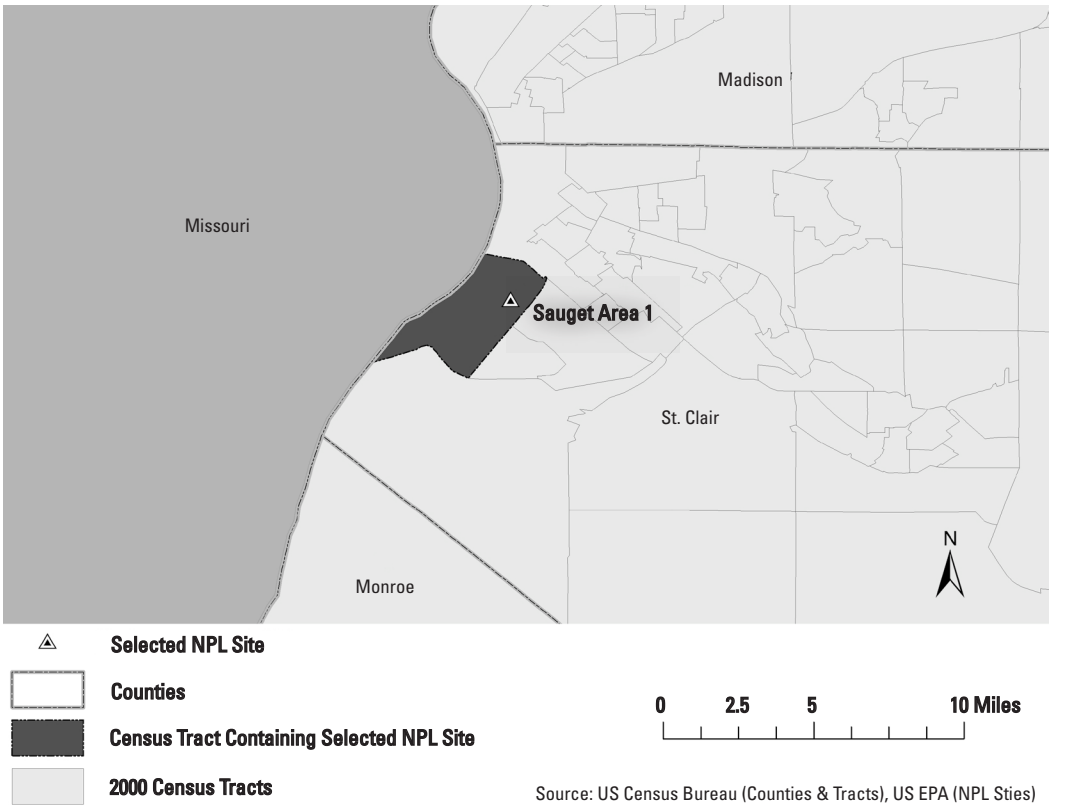
Soils:

- VOCs
- cyanide
- heavy metals including arsenic, copper and nickel

[112] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/R5Super/npl/illinois/ILD005252432.htm.

Sauget Area 1

St. Clair County, Illinois
HRS Score: 61.85



Demographic Profile

Census Tract No.: 5023
Total Population: 7,152
Median Age: 29.9
Children 9 and under: 1,351
Persons 75 and older: 282
Percent Minority: 40.21
Percent Hispanic: 2.45
Median Household Income in 1999: $30,958

Site Description[113]

Sauget Area 1 site consists of 12 contaminated sources that include over 3.5 miles of Dead Creek (sites A through F) and adjacent sites (G, H, I, L, M and N). Dead Creek is an intermittent creek, sometimes impounded, that was used around the 1930s for waste disposal. Sites G, H and I are inactive landfills or former disposal areas adjacent to the creek. Site G operated between 1950 and 1973; H and I were active from 1931 to 1957. Site L is a former surface impoundment used by waste haulers to dispose of wash water from 1971 to 1979. Sites M and N are former sand pits that were excavated in the 1940s.

Protected endangered species, such as the black-crowned night heron, are located in Segment F of Dead Creek and downstream in Old Prairie Dupont Creek, the Cahokia Chute of the Mississippi River and the main channel of the Mississippi River. These water bodies, also used for recreation and commercial fishing, may be affected by the migration of hazardous substances from the Sauget site. About 6,000 feet of wetland frontage has been impacted by releases from these sources, and over 11 miles of wetland frontage is subject to potential contamination. Approximately 143,000 people live within a four-mile radius of the site.

Contaminants Present

Soil and sediment in landfills and creek:

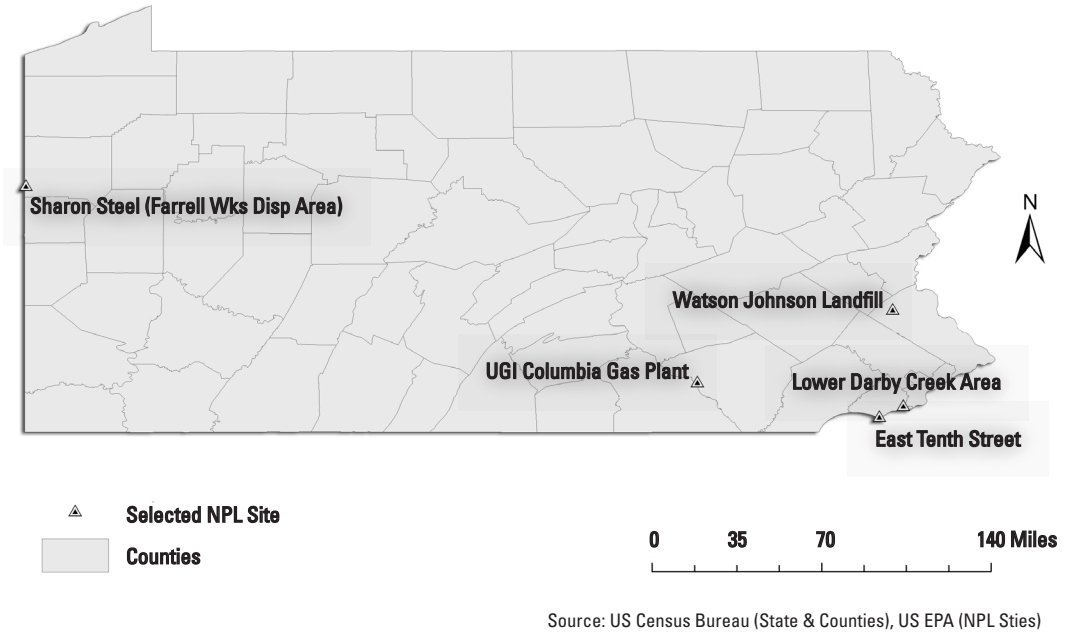
- chlorobenzenes
- chlorophenols
- chloroanilines
- nitroanilines
- dioxins
- PCBs

Surface waters:

- chlorinated solvents
- chlorobenzenes
- PCBs
- PAHs
- chlorophenols
- nitroaniline
- heavy metals (including cadmium, copper, cobalt, lead, mercury, nickel and zinc)

[113] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/R5Super/npl/illinois/ILD980792006.htm.

Pennsylvania

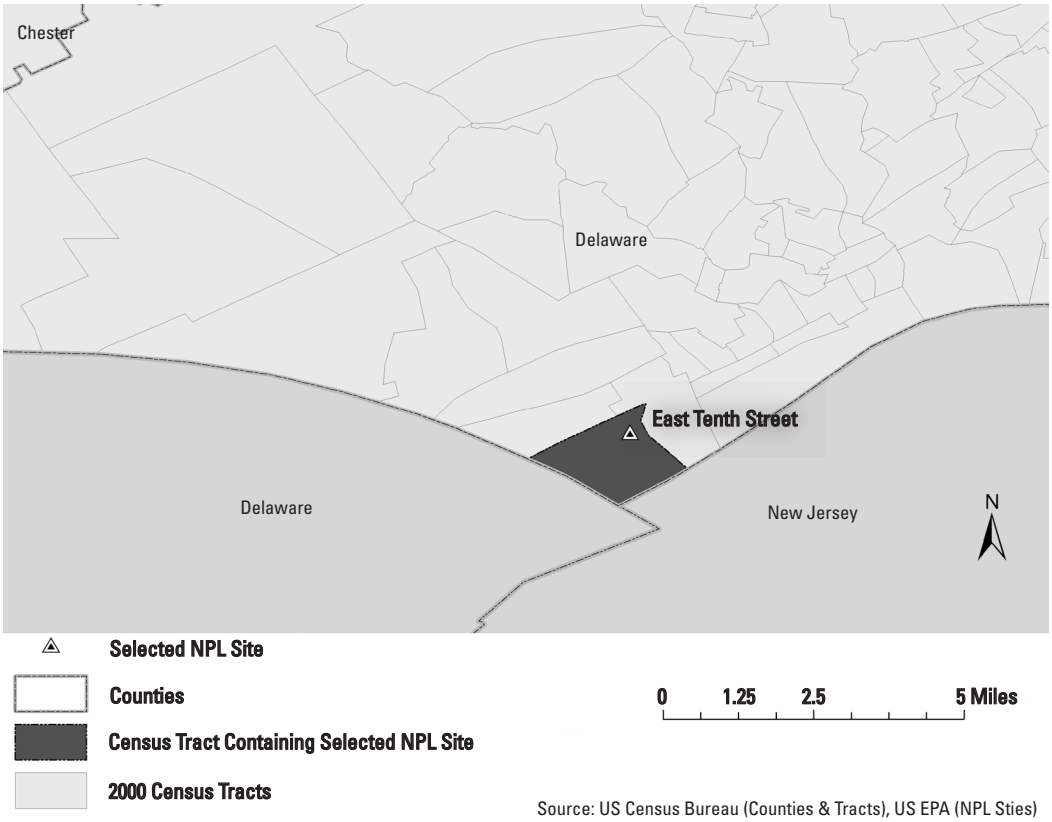


Source: US Census Bureau (State & Counties), US EPA (NPL Sties)

As of the 2000 Census, 15,188 Pennsylvanians lived in the census tracts containing the five profiled NPL sites. Of those, 2,277 were children aged nine and younger and an additional 987 were aged 75 and older. In three of the five census tracts, the median household income for 1999 was below that for the nation.

East Tenth Street

Delaware County, Pennsylvania
HRS Score: 67.68



Demographic Profile

Census Tract No.: 4066
Total Population: 2,314
Median Age: 34.5
Children 9 and under: 355
Persons 75 and older: 111
Percent Minority: 8.56
Percent Hispanic: 1.77
Median Household Income in 1999: $28,219

Site Description[114]

The East Tenth Street site was proposed to the NPL on January 18, 1994, but has never been finalized on the NPL. In 1910, American Viscose Co. purchased the 36-acre property to manufacture rayon and then, beginning in 1958, cellophane. In 1988, an environmental assessment by the Pennsylvania Department of Environmental Resources found that employees were excavating an underground solvent storage tank farm and dumping the contents of the tanks on the ground. Another assessment in 1990 revealed tanks, leaking transformers and asbestos within and outside of site buildings. Asbestos, PCBs and other hazardous substances had been mishandled during past demolition activities, and there was a sludge-filled tunnel located on one of the lots.

The sediments in Marcus Hook Creek, which runs next to the site and is classified as a state-designated area for the protection of aquatic life, are contaminated with PCBs. Removal actions — including the abatement of asbestos in several buildings, the removal of antiquated transformers, the construction of fences around contaminated lots and the removal of PCB-contaminated cements — have made the site safe. However, touching or ingesting contaminated groundwater, soils, surface water or sediments continues to pose a health risk.

Contaminants Present

Groundwater:
- VOCs

Soil:
- PCBs
- asbestos
- heavy metals
- organic compounds

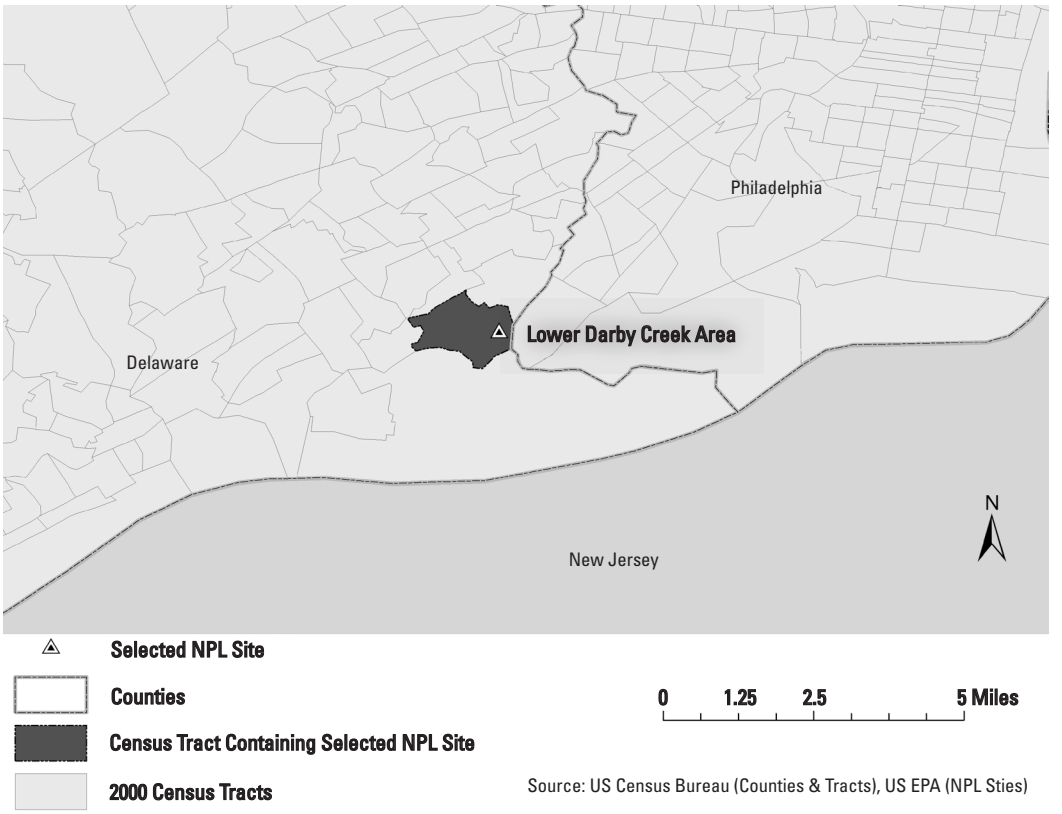
Sludge-filled tunnel:
- chloroform
- cadmium
- mercury

Sediments in Marcus Hook Creek:
- PCBs

[114] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://epa.gov/reg3hwmd/npl/PAD987323458.htm.

Lower Darby Creek Area

Delaware County, Pennsylvania
HRS Score: 50



Demographic Profile

Census Tract No.: 4034.02
Total Population: 3,864
Median Age: 35.9
Children 9 and under: 566
Persons 75 and older: 178
Percent Minority: 2.07
Percent Hispanic: 0.78
Median Household Income in 1999: $45,353

Site Description[115]

This site, which was added to the NPL on June 14, 2001, consists of two landfills, the Clearview Landfill and the Folcroft Landfill and Annex. Clearview Landfill is on the east side of Darby Creek. About two miles downstream, the Folcroft Landfill/Annex is on the west side of Darby Creek. Folcroft is part of the John Heinz National Wildlife Refuge and is managed by the United States Fish and Wildlife Service.

The two landfills operated from the 1950s to the 1970s. They disposed of a variety of wastes, including municipal, demolition and hospital waste. Landfill waste was placed along the edges of the creek. After Clearview was covered and seeded in 1976, the Philadelphia Redevelopment Authority constructed hundreds of residences around its eastern and southern borders.

Years after the landfills closed in the mid-1970s, EPA discovered that the covers were eroding and contaminated runoff was seeping into Darby Creek. Samples and reports showed that Clearview soils and seeps contained metals, PCBs and petroleum byproducts. Groundwater at Folcroft wells contained metals and solvents.

Contaminants Present

Clearview Landfill soils and seeps:

- metals
- PCBs
- petroleum byproducts

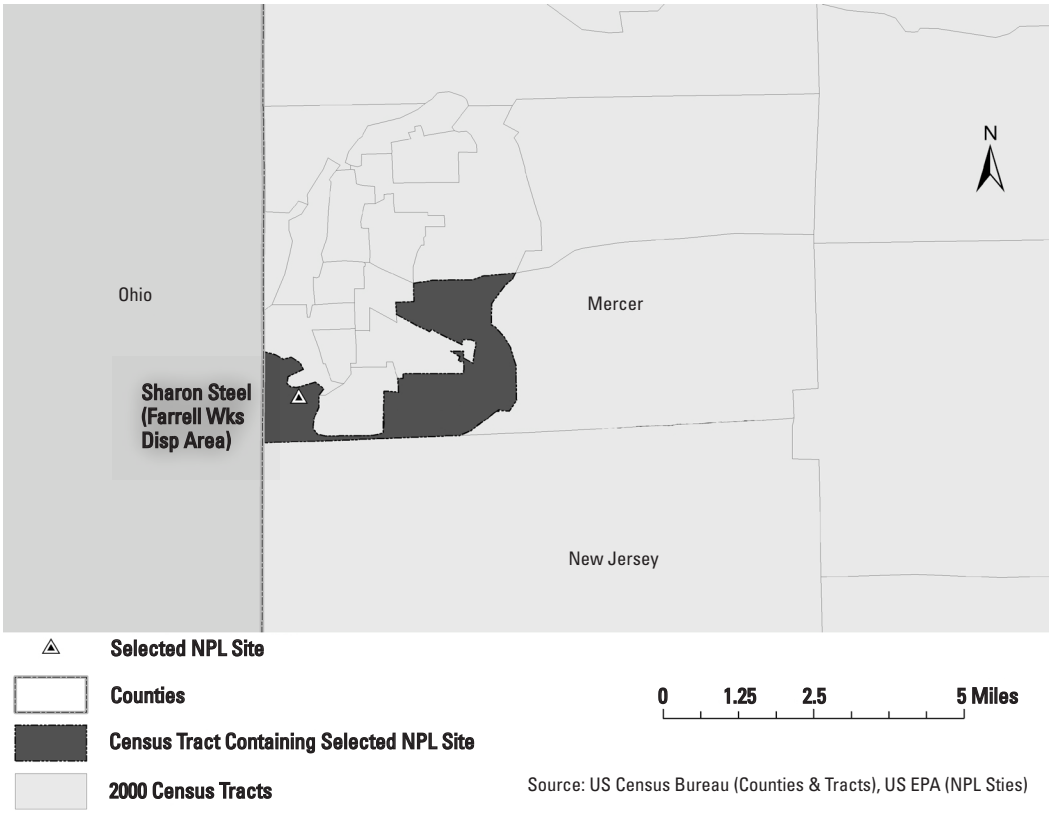
Folcroft Landfill/Annex groundwater wells:

- metals
- solvents

[115] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://epa.gov/reg3hwmd/npl/PASFN0305521.htm.

Sharon Steel (Farrell Wks Disp Area)

Mercer County, Pennsylvania
HRS Score: 50



Demographic Profile

Census Tract No.: 0311
Total Population: 1,871
Median Age: 41.4
Children 9 and under: 255
Persons 75 and older: 275
Percent Minority: 14.38
Percent Hispanic: 0.43
Median Household Income in 1999: $27,604

Site Description[116]

Added to the NPL on July 28, 1998, the Sharon Steel site encompasses a 400-acre area in western Pennsylvania, within a few hundred feet of the Ohio line. Beginning about 1900, the Sharon Steel Corporation used the area to dispose of blast furnace slag, electric arc furnace slag, basic oxygen furnace slag and sludge.

From 1949 to 1981, millions of gallons of spent pickle liquor acid were dumped over the slag, under the theory that the acid would be neutralized by carbonites in the slag. In actuality, groundwater and soils were contaminated with metals, PAHs, PCBs and pesticides.

The site is located in the flood plain of the Shenango River and there are several wetland areas on-site. Studies show that the groundwater flow is transporting the contamination away from residents so residential wells have not been affected. However, metals have been detected in all biota samples.

Contaminants Present

Soils and groundwater:

- metals
- PAHs
- PCBs
- pesticides

[116] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://epa.gov/reg3hwmd/npl/PAD001933175.htm.

UGI Columbia Gas Plant

Lancaster County, Pennsylvania
HRS Score: 50.78

Demographic Profile

Census Tract No.: 0112
Total Population: 1,913
Median Age: 31.0
Children 9 and under: 341
Persons 75 and older: 68
Percent Minority: 13.17
Percent Hispanic: 8.21
Median Household Income in 1999: $30,789

Site Description[117]

Added to the NPL on May 31, 1994, this 1.5-acre site is located in a light industrial and residential area 400 feet from the Susquehanna River. From 1851 to 1949, Columbia Gas used the site for gas manufacturing. Eventually, the property was transferred to UGI Corp., which owned it until 1979. Thereafter, the property was used as a boat dealership until 1994.

During the years of active gas manufacturing operations, overflows from an on-site tar separator were directed to an open ditch that led to the Susquehanna River. Records reveal complaints by local fishermen that their boats were being covered in tar. Samples of soil, sediment, sludge and tar revealed VOCs, PAHs, heavy metals and cyanide contamination. Groundwater flowing through the contaminated subsurface soil and bedrock has become contaminated with VOCs. Additionally, in 1987, EPA determined that approximately 800 cubic yards of sediment in the Susquehanna River were contaminated with tar from the site.

Within 15 miles downstream of the site, about 90 people use the Susquehanna River as a source of drinking water, and 1,000 people use groundwater wells within four miles of the site for drinking water. People or animals that touch or swallow contaminated materials may be at risk.

Contaminants Present

Soil, sediment, sludge, tar and groundwater:

- VOCs
- PAHs
- heavy metals
- cyanide

[117] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://epa.gov/reg3hwmd/npl/PAD980539126.htm.

Watson Johnson Landfill

Bucks County, Pennsylvania
HRS Score: 71

Demographic Profile

Census Tract No.: 1030.02
Total Population: 5,226
Median Age: 36.9
Children 9 and under: 760
Persons 75 and older: 355
Percent Minority: 2.99
Percent Hispanic: 1.21
Median Household Income in 1999: $47,269

Site Description[118]

The Watson Johnson Landfill was added to the NPL on September 13, 2001. About 32 acres of the 56-acre site was a former landfill that accepted both municipal and industrial waste. The landfill was active from the late 1950s until the early 1970s.

After concerned citizens contacted EPA in 1998, sampling revealed a variety of contaminants. Hazardous substances detected in the soils include VOCs, PCBs and metals. An on-site monitoring well and a Quakertown Borough municipal well were contaminated with PCE and TCE. Metals and PCBs were detected in sediment samples collected from an adjacent wetland and an elevated level of mercury was detected downstream of the site in Tohickon Creek. Residential well sampling indicated elevated levels of arsenic in some home wells.

In July 1999, a front-end loader unearthed and accidentally punctured a drum, spilling two gallons of material on the ground that was found to contain PCE and lead. EPA removed the drum and surrounding contaminated soil in March 2000. Drinking water from the municipal well is currently being treated to remove the TCE contamination, and public water main service is being extended to 35 residences currently using private wells.

Contaminants Present

Soil:
- VOCs
- SVOCs
- PCBs
- metals

Monitoring well and municipal well:
- PCE
- TCE

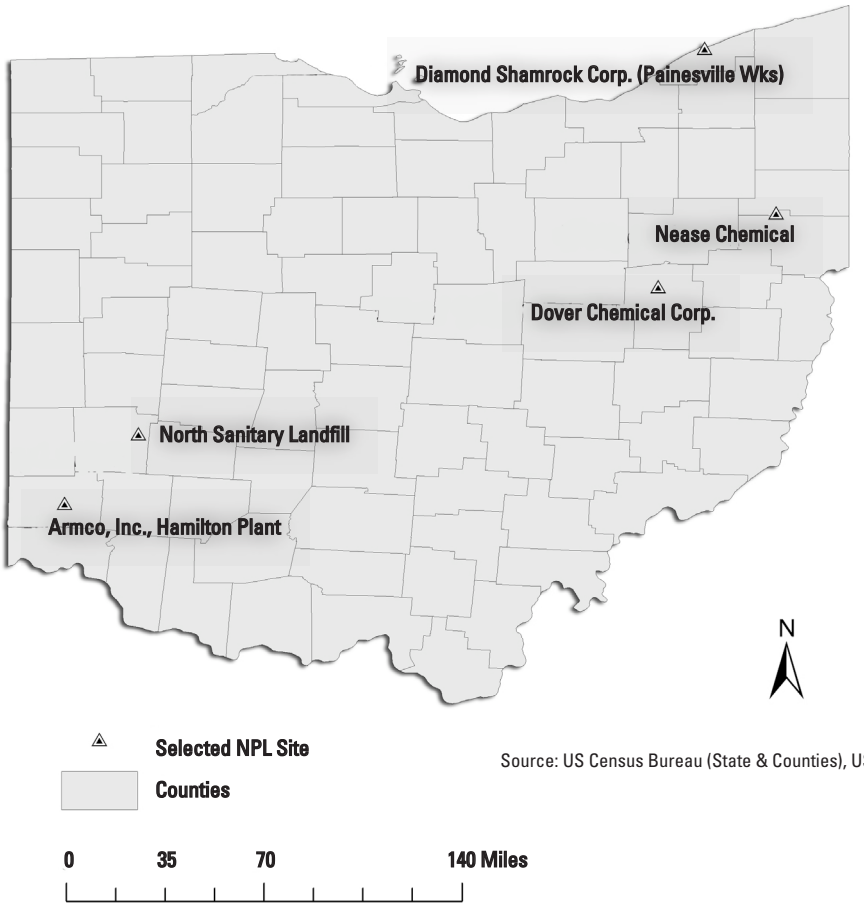
Sediments in adjacent wetlands:
- metals
- PCBs

Tohickon Creek:
- mercury

Residential wells:
- arsenic
- TCE

[118] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://epa.gov/reg3hwmd/npl/PAD980706824.htm.

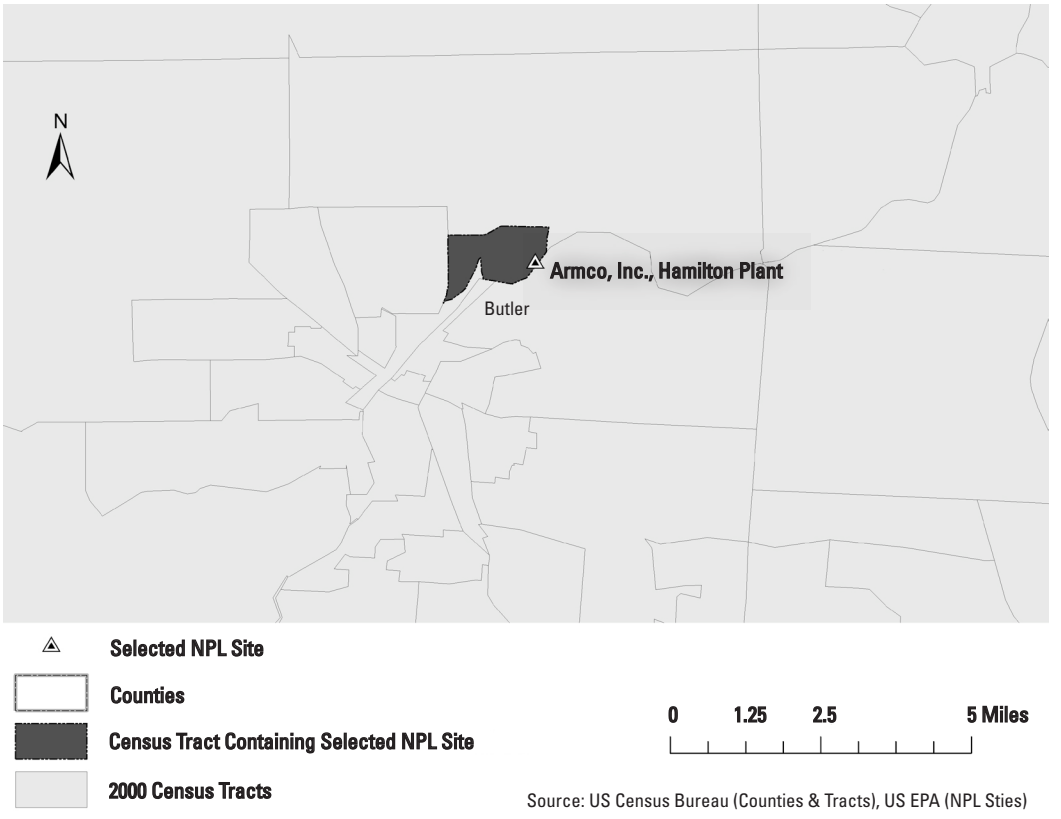
Ohio



As of the 2000 Census, 23,068 Ohioans lived in the census tracts containing the five profiled NPL sites. Of those, 3,270 were children aged nine and younger. An additional 1,581 were persons aged 75 and older. In three of the five census tracts, the median household income for 1999 was below that for the nation.

Armco, Inc., Hamilton Plant

Butler County, Ohio
HRS Score: 69.34



Demographic Profile

Census Tract No.: 0105
Total Population: 2,543
Median Age: 33.8
Children 9 and under: 369
Persons 75 and older: 102
Percent Minority: 6.80
Percent Hispanic: 0.63
Median Household Income in 1999: $34,630

Site Description[119]

Proposed to the NPL on April 30, 2003, the Armco Inc., Hamilton Plant site is a 120-acre inactive industrial facility bordered by the Great Miami River and the B&O Railroad. Augspurger Road divides the site into two portions. The 27-acre northern parcel was formerly used as a rail yard, a temporary storage area for scrubber sludge waste and a 4.5-acre landfill. The southern parcel consists of 92 fenced areas and was used for manufacturing operations, including a coke production facility and blast furnaces.

The facility operated as a steel mill, producing both coke and molten iron under various owners since the 1900s. Coke production stopped in 1982 and iron production ended in 1991. The facility was then used intermittently until it was completely closed in 1994. Coal tar sludge was periodically drained and disposed of in the landfill portion of the property from the early 1960s through the landfill's closure in 1980. The blast furnace operation generated wastewater that was discharged into two settling ponds. Excess water from the ponds was originally discharged to the Great Miami River under a permit. Settled pollutants in the water such as ammonia, cyanide, phenol, lead and zinc were periodically dredged from the ponds and stored in piles in the northern parcel.

Past disposal practices resulted in the contamination of site soil and Great Miami River sediments. The river is a recreational fishery for species such as bluegill and small mouth bass, and nearby land serves as habitat for a federally designated endangered species, the Indiana Bat. Moreover, the site is less than one-half mile from the City of Hamilton's North Plant wellfield, which serves approximately 35,763 people. The Village of New Miami Wellfield is located within one mile of the site and serves about 3,045 people. A total population of 60,605 is served by wells within four miles of the site. Although groundwater contamination had not yet been detected, the aquifer is only 40 feet below ground surface in the vicinity of the site.

Contaminants Present

Settling pond sediments:

- SVOCs
- PCBs

[119] Site description and contaminant information obtained from NPL Site Narrative, *available at* http://www.epa.gov/superfund/sites/npl/nar1670.htm.

Soil:

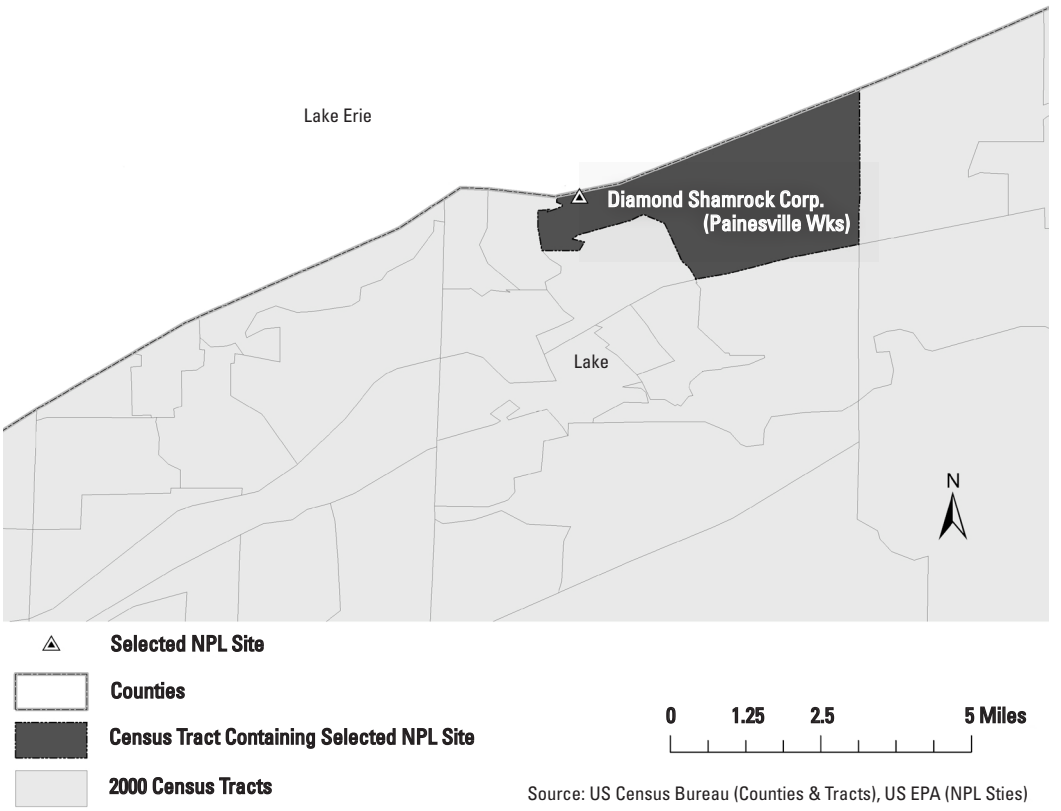
- SVOCs
- PCBs
- metals

Great Miami River sediments:

- SVOCs, including 4-methylphenol (o-cresol), fluoroanthene, benzo(k)flouranthene, and benzo(f,h,i)perylene
- metals, including chromium and zinc

Diamond Shamrock Corp (Painesville Works)

Lake County, Ohio
HRS Score: 50



Demographic Profile

Census Tract No.: 2048
Total Population: 3,337
Median Age: 38.7
Children 9 and under: 400
Persons 75 and older: 182
Percent Minority: 1.80
Percent Hispanic: 0.72
Median Household Income in 1999: $48,125

Site Description[120]

Proposed to the NPL on May 10, 1993, the Diamond Shamrock Corp. (Painesville Works) site has not yet been added to the NPL. The site occupies about 500 acres between Lake Erie and the Grand River and is bordered by a tire manufacturing company on the east and an industrial area on the west.

In 1912, the Diamond Shamrock Chemical Company began operations at the plant, producing mainly caustic soda, chromate compounds, chlorine, chlorinated paraffins and coke. The company also accepted and disposed of spent pickle liquor from nearby steel industries until it closed in 1972. Eight sources are associated with the site: .75 million tons of chromate waste materials, three waste lakes, a wastewater retention basin, a hazardous waste landfill, chromate effluent treatment lagoons and contaminated soils in the main production area. PCBs were discovered in the transformer oils.

The site poses a threat to drinking water intakes along Lake Erie and to the fisheries, wetlands and sensitive environments in the lake and nearby Grand River. Headlands Beach State Park, located nearby, is a significant recreation area. Sport fishing occurs in both the river and the lake; commercial fishing also occurs in the lake. Nearby wetlands provide habitat for the River Otter, a state endangered species, as well as the Indiana Bat, a federally designated endangered species.

Contaminants Present

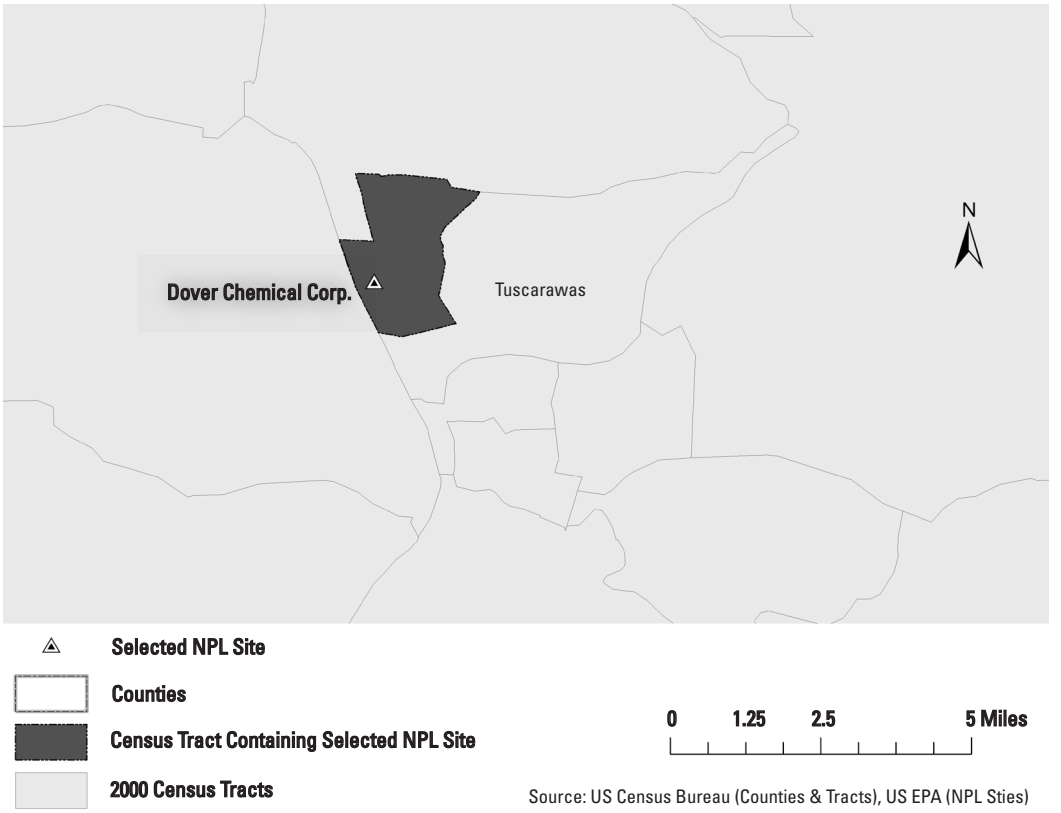
Surface water and sediments:

- hexavalent chromium
- mercury
- cyanide
- ethylbenzene
- xylene
- napthalene

[120] Site description and contaminant information obtained from NPL Site Narrative, *available at* http://www.epa.gov/superfund/sites/npl/nar1376.htm.

Dover Chemical Corp.

Tuscawaras County, Ohio
HRS Score: 50



Demographic Profile

Census Tract No.: 0206
Total Population: 5,206
Median Age: 42.6
Children 9 and under: 572
Persons 75 and older: 586
Percent Minority: 1.63
Percent Hispanic: 0.61
Median Household Income in 1999: $43,830

Site Description[121]

The Dover Chemical Corp. site was proposed to the NPL on May 10, 1993, but has not been added to the final NPL. This site consists of three parcels that total approximately 60 acres: a chemical manufacturing facility on the 20-acre main parcel; an undeveloped property in a residential area to east of the facility; and an undeveloped property between I-77 and Sugar Creek. The latter parcel contains an eight-acre pond up to 28 feet deep that was formerly a borrow pit during construction of I-77.

Since 1950, Dover Chemical has manufactured products used to make extreme pressure lubricants, plasticizers and flame retardants for vinyl products. Soil and groundwater were contaminated by site activities from the 1950s through the early 1970s, including ground storage and unintentional spills and leaks. Until 1987, wastewater was discharged into a ditch that ultimately discharged into Sugar Creek. Following a removal action that same year, contaminants previously found in the lagoon surface water and adjacent shallow groundwater are no longer present. Although a variety of VOCs and other constituents have been found on the site, dioxin contamination poses the greatest risk.

Contaminants Present

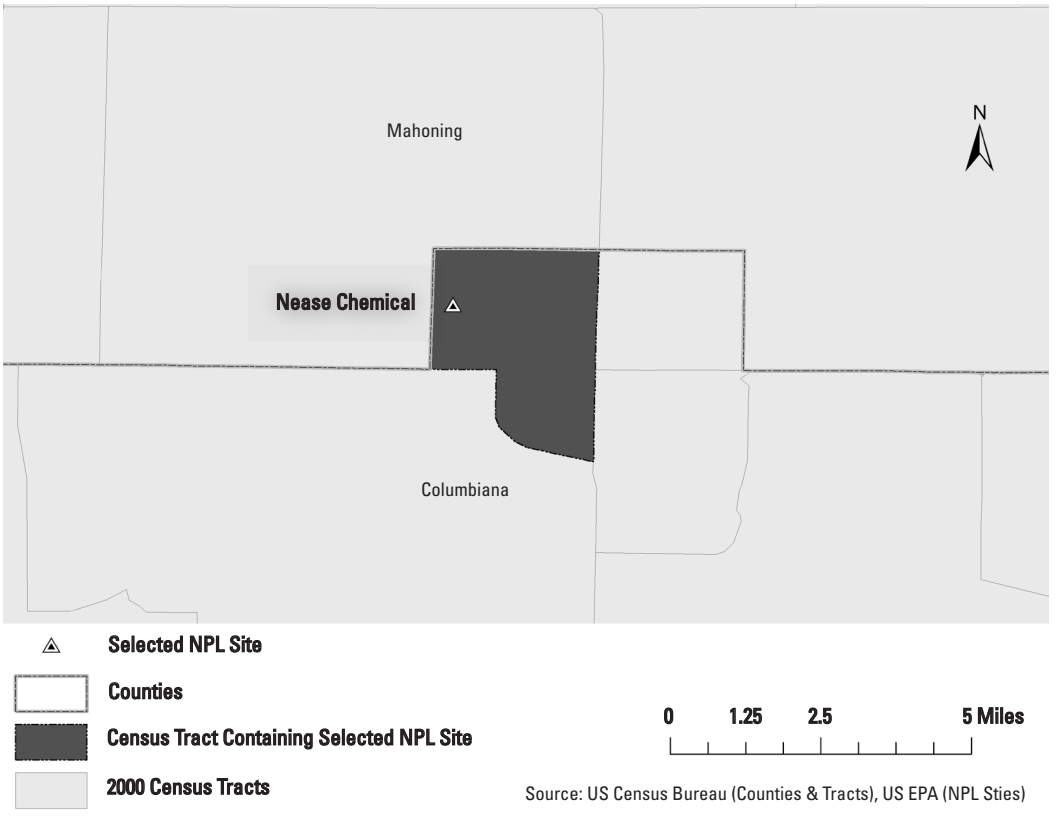
Soil and groundwater:

- VOCs
- carbon tetrachloride
- 1,4-dicholorobenzene
- hexachlorobenzene
- tetrachloroethene
- dibenzofurans (furans)
- polychlorinated dibenzodioxins (dioxin)

[121] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/R5Super/npl/ohio/OHD004210563.htm.

Nease Chemical

Columbiana County, Ohio
HRS Score: 47.19



Demographic Profile

Census Tract No.: 2048
Total Population: 5,491
Median Age: 37.0
Children 9 and under: 728
Persons 75 and older: 338
Percent Minority: 1.91
Percent Hispanic: 0.53
Median Household Income in 1999: $35,038

Site Description[122]

Added to the NPL on September 8, 1983, this 44-acre site is surrounded by lightly developed land on three sides, an industrial plant to the northeast and 124 homes within one mile. Between 1961 and 1973, Nease Chemical produced various chemical compounds, including household cleaners, fire retardants and pesticides (most notably, mirex, a probable human carcinogen). During the facility's operation, hazardous substances were released into soils and groundwater through five unlined ponds used to treat manufacturing waste. Contaminants were also released to the Middle Fork of Little Beaver Creek (MFLBC) through surface water runoff from the ponds into creek tributaries.

Soils, sediments, surface water, groundwater and fish along a 30-mile reach of MFLBC are contaminated despite Nease Chemical's voluntary removal of 115 drums and 5,700 cubic yards of soil from contaminated areas in 1975. The MFLBC and associated wetlands are an important natural resource with certain stretches designated as wild and scenic. Dairy herds on two nearby farms were exposed to mirex through creek and floodplain contamination. In 1989, the Ohio Department of Public Health (ODH) detected mirex in the bloodstream of some local residents and workers, prompting ODH to issue a health advisory against fishing and swimming along portions of the MFLBC.

Contaminants Present

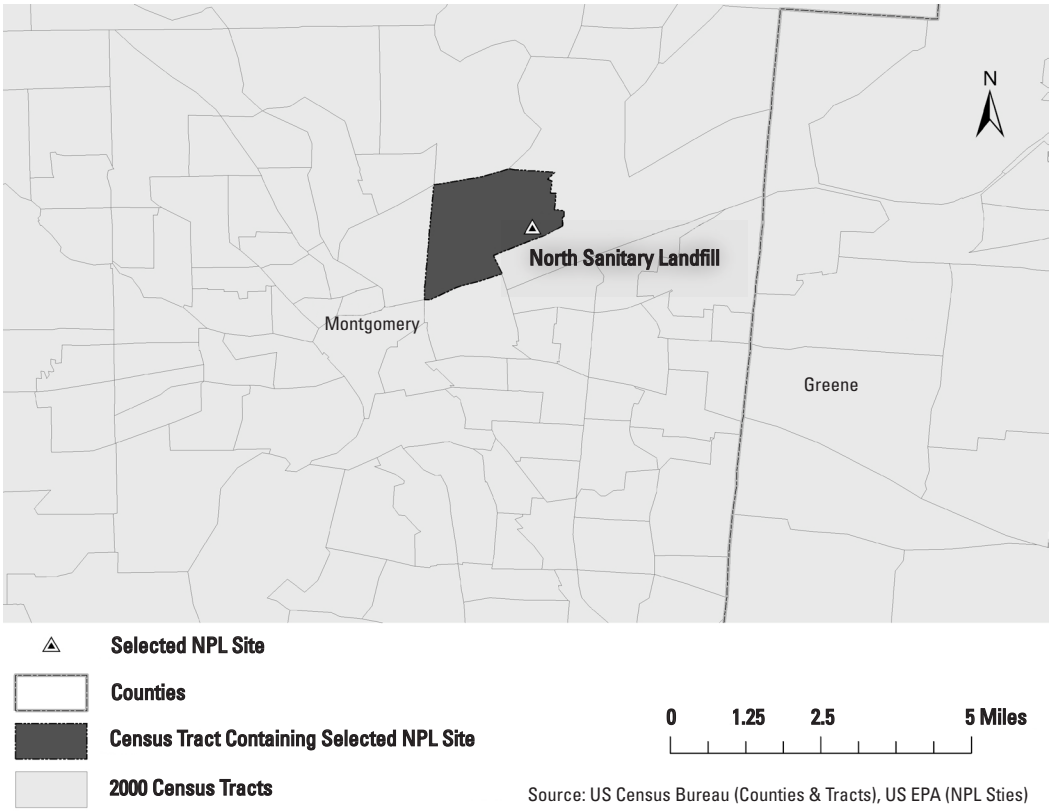
Groundwater, soil and sediments:

- VOCs
- SVOCs

[122] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/R5Super/npl/ohio/OHD980610018.htm.

North Sanitary Landfill

Montgomery County, Ohio
HRS Score: 50



Demographic Profile

Census Tract No.: 0018
Total Population: 6,491
Median Age: 32.0
Children 9 and under: 1,201
Persons 75 and older: 373
Percent Minority: 14.90
Percent Hispanic: 1.96
Median Household Income in 1999: $24,875

Site Description[123]

The North Sanitary Landfill was added to the NPL on May 31, 1994. More than half of the 102-acre site was used for landfilling industrial and municipal wastes into unlined gravel pits, which intersected the water table. The site sits atop and within a federally designated sole-source aquifer composed of highly transmissive sands and gravels. It is in close proximity to the City of Dayton's two major municipal well fields, which supply over 430,000 people with drinking water.

Several private residential wells have become contaminated with organic substances believed to be related to the site. Wastes disposed of at the site include used oils, solvents, paint, electrical transformers, brake grindings containing asbestos and sewage. Thousands of drums buried on the site are contaminated with TCE and other VOCs. Numerous fires have occurred at the site, the most recent in 1996.

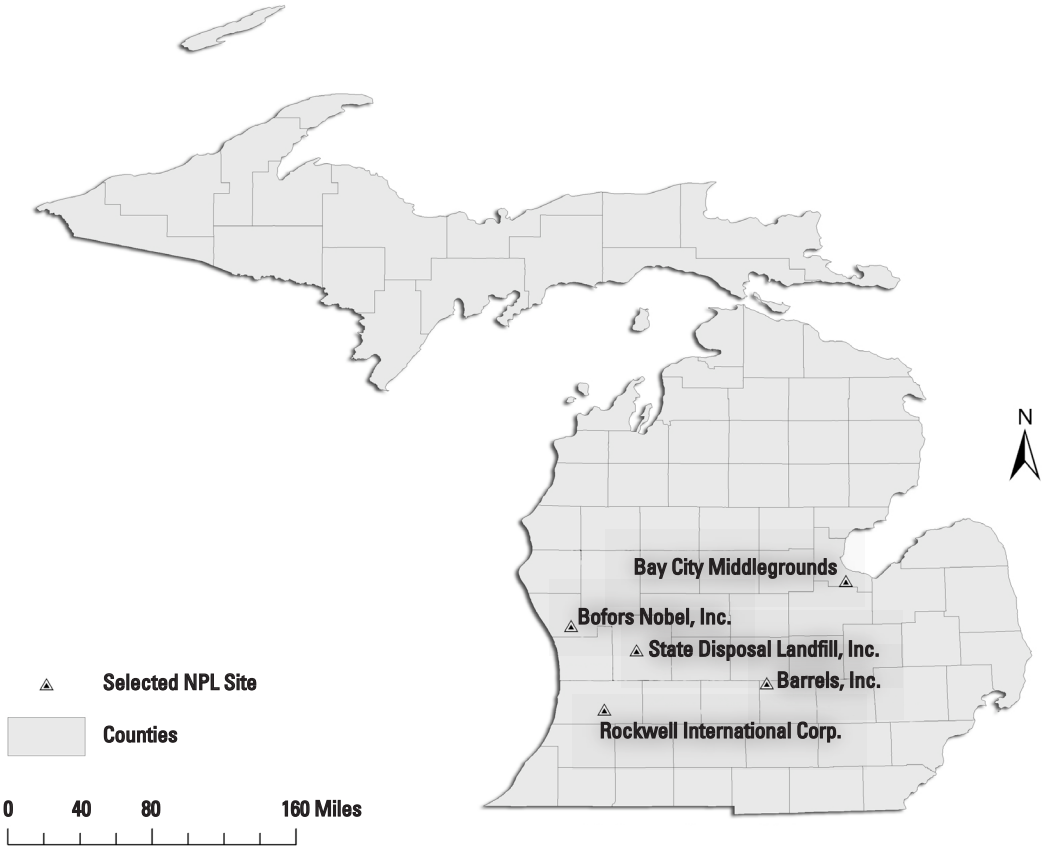
Contaminants Present

Groundwater and soils:

- VOCs, such as TCE, tetrachlorethene, 1,1-dichloroethene, vinyl chloride and methylene chloride
- semi-VOCs such as Phenol and bis(2-ethylhexyl)phthalate
- heavy metals such as lead, mercury, cadmium and cyanide
- PCBs

[123] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/R5Super/npl/ohio/OHD980611875.htm.

Michigan

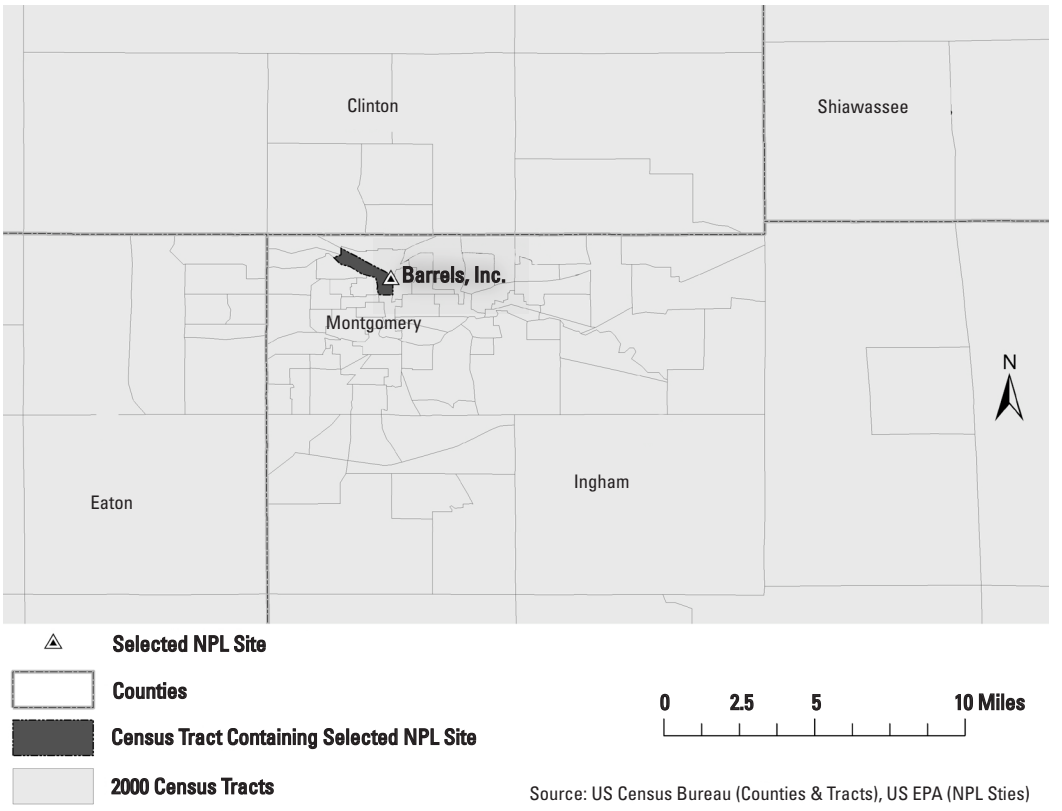


Source: US Census Bureau (State & Counties), US EPA (NPL Sties)

As of the 2000 Census, 20,915 Michiganders lived in the census tracts containing the five profiled NPL sites. Of those, 3,189 were children aged nine and younger. An additional 1,161 were persons aged 75 and older. In four of the five census tracts, the median household income for 1999 was below that for the nation.

Barrels, Inc.

Ingham County, Michigan
HRS Score: 42.24



Demographic Profile

Census Tract No.: 0002
Total Population: 1,467
Median Age: 28.7
Children 9 and under: 319
Persons 75 and older: 40
Percent Minority: 41.58
Percent Hispanic: 24.81
Median Household Income in 1999: $28,681

Site Description[124]

Added to the NPL on October 4, 1989, Barrels, Inc. is a two-acre site in an industrialized portion of Lansing, Michigan. From 1964 to 1981, Barrels, Inc., received metal barrels from industrial facilities for cleaning and repainting. Waste residues were allegedly dumped directly onto the ground as the first step in recycling the drums. Paint sludges were also deposited at the site.

In 1983, the state detected lead and zinc in the shallow groundwater. Soils on-site were heavily contaminated with heavy metals, volatile hydrocarbons, PCBs, oil, grease and many inorganic substances. Air quality reports indicated elevated levels for benzene and methylene chloride at the site boundary when barrels were on the site.

Approximately 9,000 people live within one mile of the site, and three schools are within one-half mile. A Lansing municipal well is located in close proximity to the site, and the Grand River flows within one-half mile of the site. In 1986, the state removed 1,000 drums, 1,000 cubic yards of contaminated soil and nine underground storage tanks. The area is fenced, which EPA says has resolved the risk of direct contact.

Contaminants Present

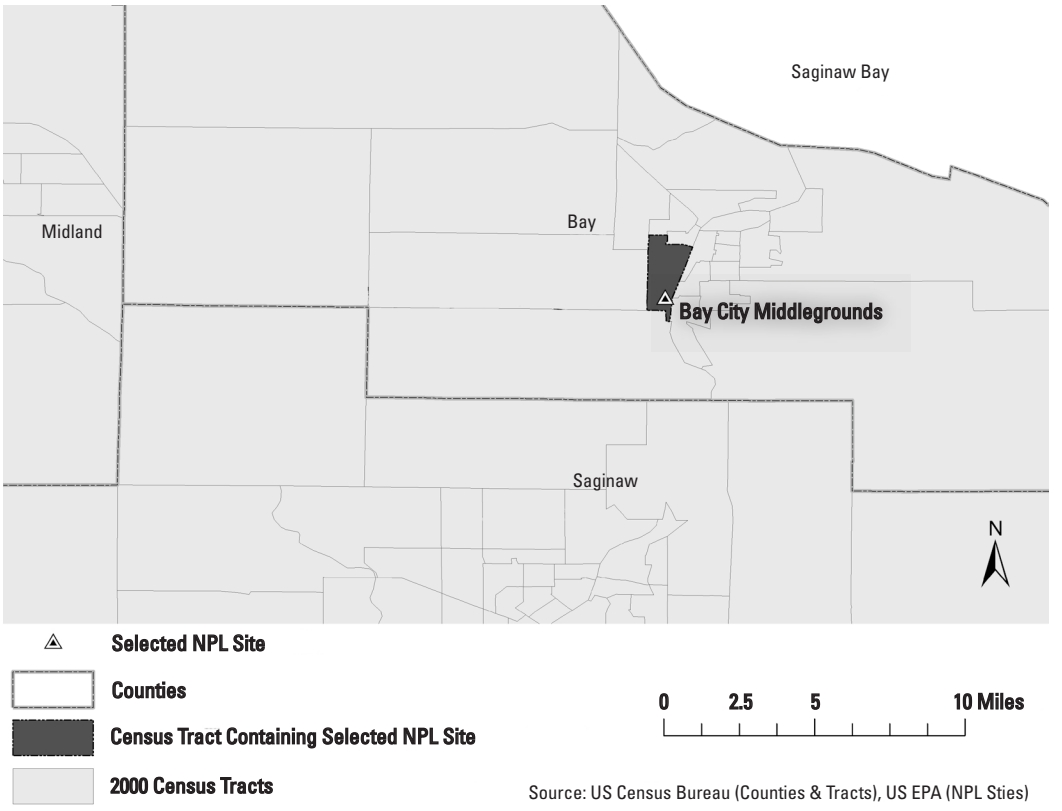
Shallow groundwater:
- lead
- zinc

Soils:
- heavy metals
- volatile hydrocarbons
- PCBs
- oil
- grease
- inorganic substances

[124] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/R5Super/npl/michigan/MID017188673.htm.

Bay City Middlegrounds

Bay County, Michigan
HRS Score: 50



Demographic Profile

Census Tract No.: 2810
Total Population: 4,363
Median Age: 35.2
Children 9 and under: 632
Persons 75 and older: 384
Percent Minority: 3.71
Percent Hispanic: 4.54
Median Household Income in 1999: $30,264

Site Description[125]

Proposed to the NPL on February 13, 1995, the Bay City Middlegrounds site has not been added to the final NPL. The site occupies 40 acres on Middlegrounds Island in the Saginaw River. It is an inactive landfill and dredged sediment disposal area owned by Bay City, Michigan. The landfill accepted construction and demolition debris, municipal and household wastes, and solid and liquid industrial waste. The sediment disposal area consists of piles of sediments dredged from the Saginaw River and Bay by the U.S. Army Corps of Engineers.

Approximately 58,900 people live within a four-mile radius of the site. The sediments in some areas of the river and bay have been contaminated with many hazardous substances, including pesticides and PCBs. Soils and groundwater associated with the landfill also contain a variety of contaminates. The highest threat is to surface water. Contaminated groundwater and surface runoff discharge to the Saginaw River and have contaminated fishing areas as well as a small river wetland. A drinking water intake for the Bay municipal system, which serves approximately 94,426 people in Bay City and the surrounding area, could potentially be affected by site contamination. Also potentially affected are fisheries in the river and bay, wetlands, threatened and endangered species, and a state-designated wildlife area.

Contaminants Present

Soils and groundwater associated with landfill:

- PCBs
- solvents
- benzene
- toluene
- ethylbenzene
- xylenes
- polynucleic aromatics
- phthalates
- pesticides
- a variety of other contaminants

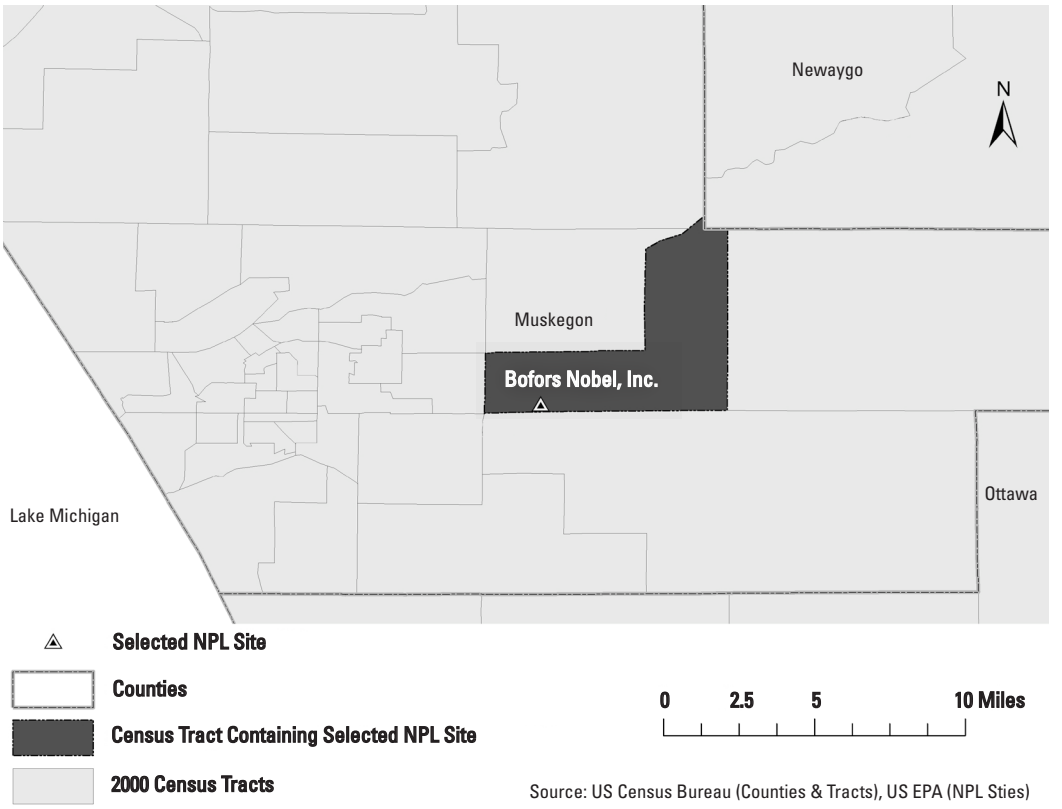
Sediment piles:

- polynucleic aromatics
- phthalates
- PCBs
- pesticides
- heavy metals

[125] Site description and contaminant information obtained from NPL Site Narrative, *available at* http://www.epa.gov/superfund/sites/npl/nar1450.htm.

Bofors Nobel, Inc.

Muskegon County, Michigan
HRS Score: 53.42



Demographic Profile

Census Tract No.: 0031
Total Population: 4,191
Median Age: 33.3
Children 9 and under: 673
Persons 75 and older: 160
Percent Minority: 5.61
Percent Hispanic: 3.82
Median Household Income in 1999: $37,663

Site Description[126]

Added to the NPL on March 31, 1989, Bofors Nobel is an 85-acre site six miles east of Muskegon with an operating chemical production facility and 10 abandoned sludge lagoons. Big Black Creek, which bounds the site on the south, receives groundwater discharge from the site.

Starting around 1960, operations at the site produced alcohol-based detergents, saccharin, pesticides, herbicides and dye intermediates. Unlined lagoons were used for wastewater and sludge disposal until 1976. In the 1970s, the state of Michigan discovered contaminants in site groundwater that had severely affected the creek ecosystem. Twelve extraction wells were installed to capture contaminated groundwater before it reaches the creek.

About 1,800 people live within a 1.25-mile radius of the site. Groundwater treatment plant and barrier walls have been installed to treat the contamination.

Contaminants Present

Lagoon sludge:

- 27 different organic compounds

Groundwater:

- methylene chloride
- benzene
- 3,3-dichlorobenzidine
- aniline
- azobenzene
- benzidine
- toluene

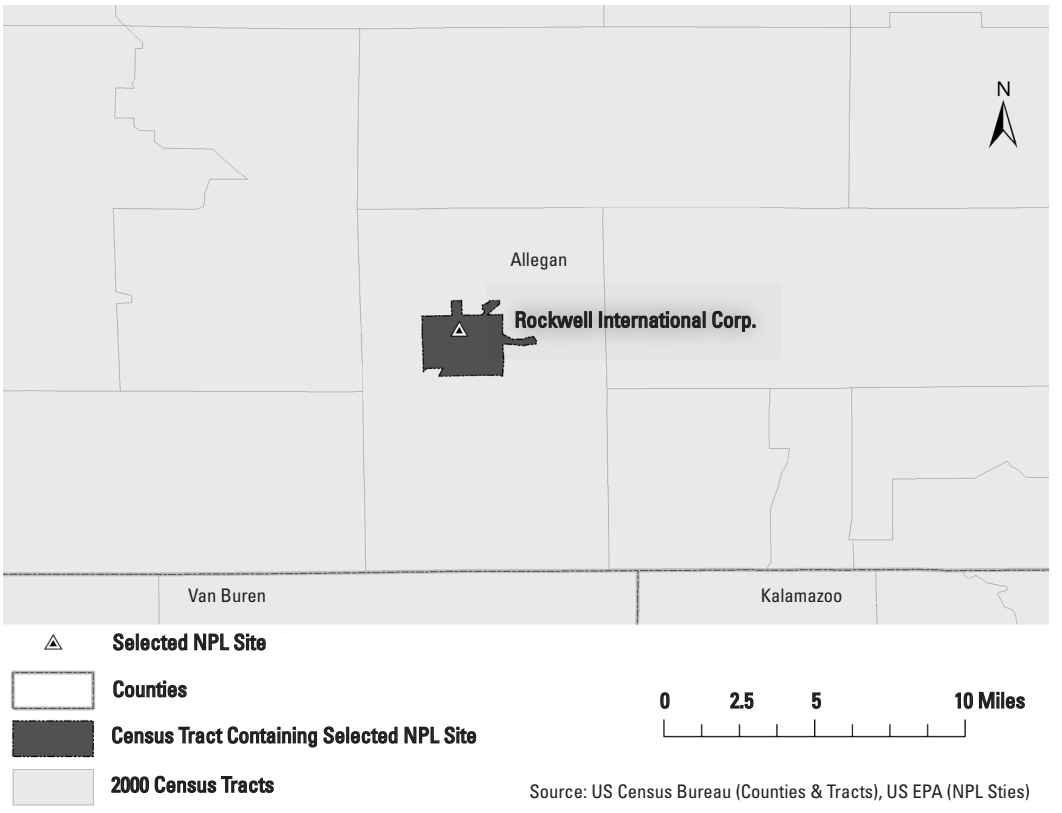
Soils and lagoon sludge:

- methylene chloride
- benzene
- 3,3-dichlorobenzidine
- aniline
- azobenzene
- benzidine

[126] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/R5Super/npl/michigan/MID006030373.htm.

Rockwell International Corp. (Allegan)

Allegan County, Michigan
HRS Score: 52.15



Demographic Profile

Census Tract No.: 0312
Total Population: 4,838
Median Age: 35.2
Children 9 and under: 697
Persons 75 and older: 402
Percent Minority: 8.56
Percent Hispanic: 2.85
Median Household Income in 1999: $39,539

Site Description[127]

The Rockwell International Corp. (Allegan) site was added to the NPL on July 22, 1987. From the 1920s until 1991, Rockwell manufactured parts for trucks and construction equipment on this 30-acre site. During this period, wastewater and oils were discharged into a wetland area behind the plant, a series of lagoons and the Kalamazoo River. Prior to 1970, the wetland and lagoons were filled in and built over.

Surface and subsurface soils, groundwater and sediments in the lagoons and the Kalamazoo River are contaminated with VOCs, semi-VOCs, pesticides, PCBs and metals. The areas of waste disposal may also overlap with portions of a landfill adjacent to the site. Oils containing semi-VOCs and PCBs are present in the waste disposal areas. During the 1970s, Rockwell built a wastewater treatment plant at the site and discharged treated wastes under a National Pollutant Elimination Discharge System permit.

Approximately 8,150 people live within three miles of the site. The area is served by a public water supply system. Three municipal wells are located one-half mile up gradient of the site, and at least 15 private wells are known to be within a mile of the site. The groundwater discharges into the Kalamazoo River.

Contaminants Present

Soil, groundwater, lagoon sediment, Kalamazoo River:

- VOCs
- SVOCs
- pesticides
- PCBs
- metals

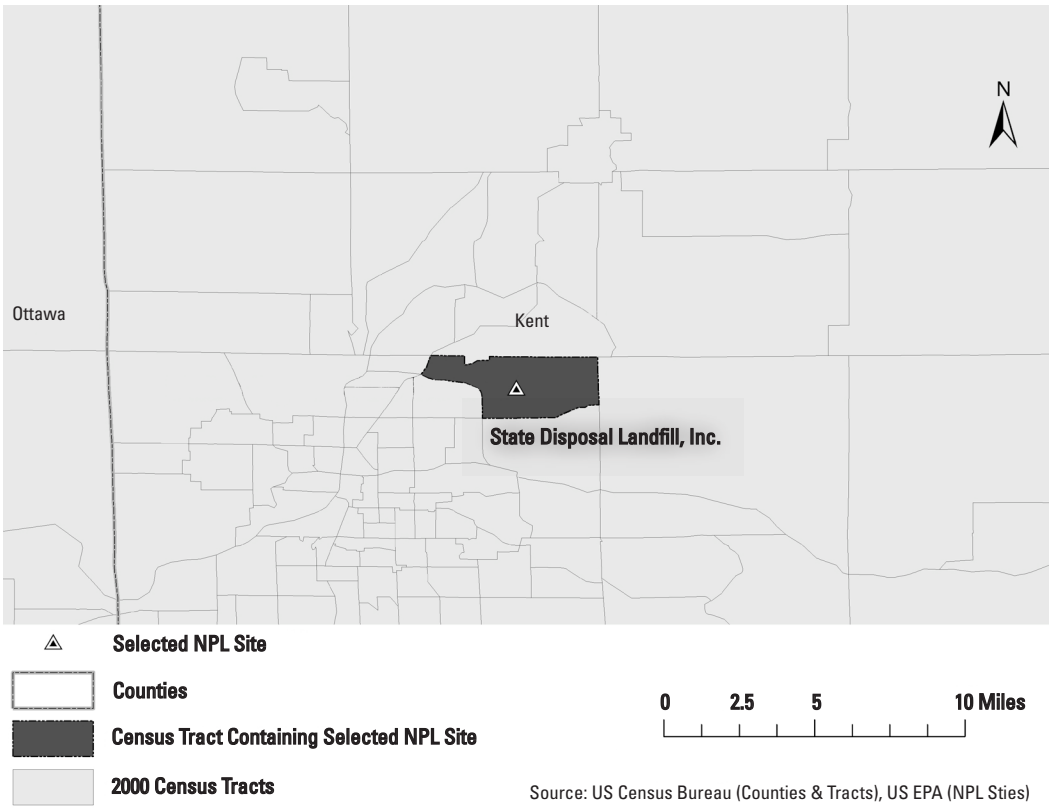
Landfill area:

- VOCs
- SVOCs
- pesticides
- PCBs
- metals
- oil containing SVOCs and PCBs

[127] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/R5Super/npl/michigan/MID006028062.htm.

State Disposal Landfill, Inc.

Kent County, Michigan
HRS Score: 42.24



Demographic Profile

Census Tract No.: 0118.01
Total Population: 6,056
Median Age: 36.5
Children 9 and under: 868
Persons 75 and older: 175
Percent Minority: 3.98
Percent Hispanic: 1.04
Median Household Income in 1999: $66,458

Site Description[128]

Added to the NPL on February 21, 1990, this 37.6-acre former landfill is located in Plainfield Township in Kent County. It was a licensed waste disposal facility from 1966 to 1976. The landfill accepted residential, commercial and other wastes, and unconfirmed reports indicate that it may have also accepted liquid hazardous wastes.

The area under study encompasses 800 acres of wooded, agricultural and residential properties. Affected residential wells were provided with alternative water supplies from 1985 to 1991 and some were connected to the municipal water supply. The landfill has been capped and fenced.

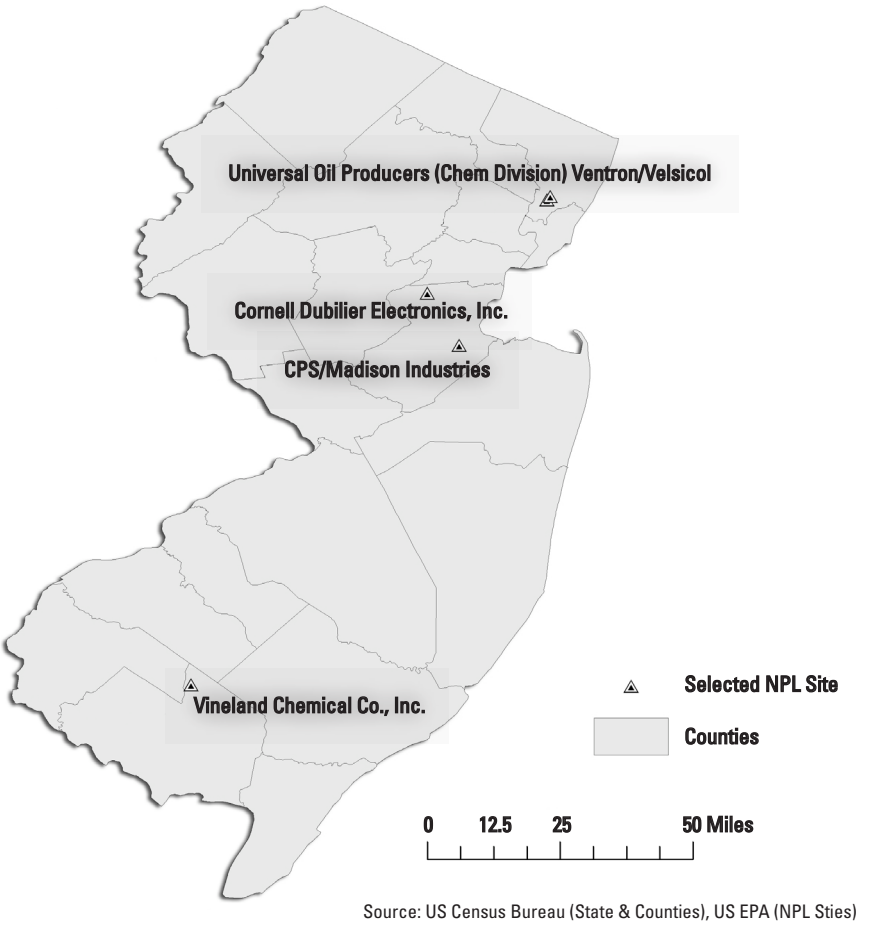
Contaminants Present

Groundwater and landfill area:

- lead
- copper
- cyanide
- chromium
- VOCs (including tetrachloroethane, trichloroethane, 1,2-dichloroethane, dichloroethane, 1,1-dichloroethane, chloroethane, vinyl chloride, 1,1,1-trichloroethane, chloroflourocarbons as well as benzene, toluene and xylene compounds)

[128] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/R5Super/npl/michigan/MID980609341.htm.

New Jersey

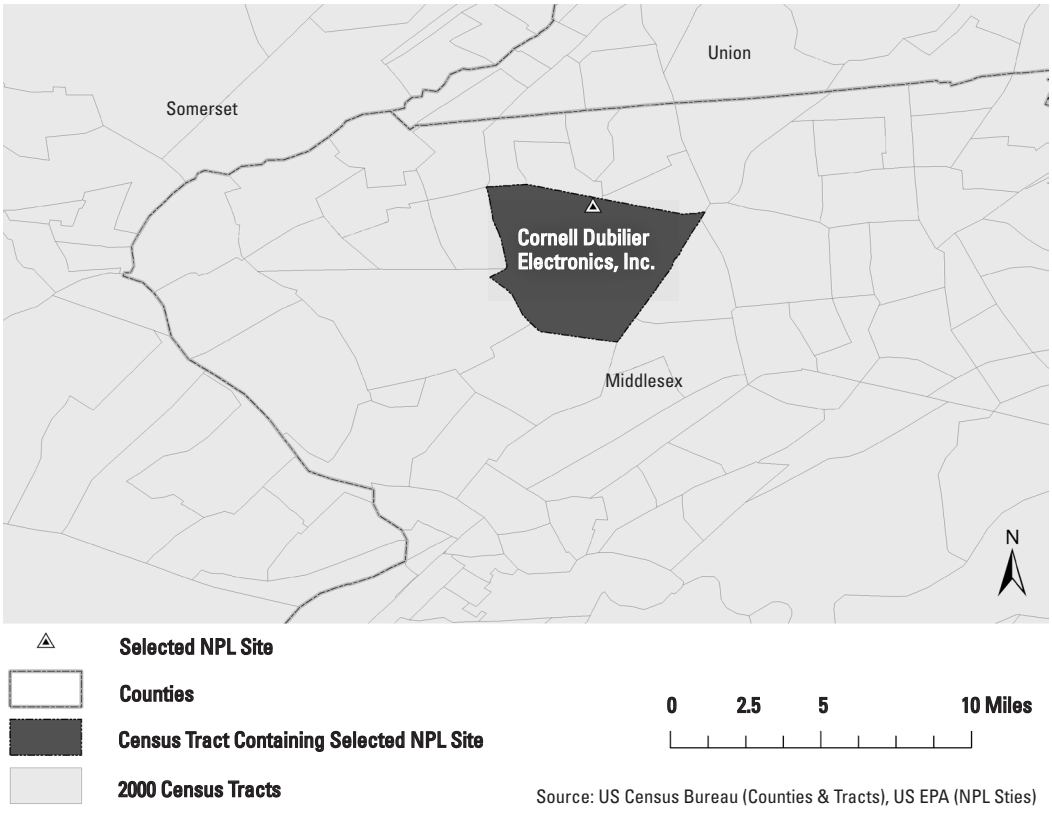


Source: US Census Bureau (State & Counties), US EPA (NPL Sties)

As of the 2000 Census, 28,155 New Jerseyans lived in the census tracts containing the five profiled NPL sites. Of those, 3,392 were children aged nine and younger. An additional 1,977 were persons aged 75 and older. The median household income for 1999 in all five tracts was above that for the nation.

Cornell Dubilier Electronics, Inc.

Middlesex County, New Jersey
HRS Score: 50.27



Demographic Profile

Census Tract No.: 0010.02
Total Population: 5,950
Median Age: 36.2
Children 9 and under: 818
Persons 75 and older: 395
Percent Minority: 35.61
Percent Hispanic: 9.78
Median Household Income in 1999: $65,942

Site Description[129]

The Cornell Dubilier Electronics, Inc., site was added to the NPL on July 28, 1998. From 1936-1962, the company manufactured electronic parts and components at the site, during which time it allegedly dumped PCB-contaminated materials and other hazardous substances directly onto the soil. Now known as the Hamilton Industrial Park, the site is occupied by an estimated 15 commercial businesses.

Approximately 540 people live within a quarter-mile of the site, and the nearest residential homes are less than 200 feet away. A total of about 8,700 people live within one mile of the site. An unnamed tributary to Bound Brook traverses the southeast corner of the property. Water bodies that join this tributary allow for the maintenance, migration and propagation of various plants and organisms. Fish collected from Bound Brook were found to contain PCBs at levels higher than the amount allowed by the FDA, so a fish-consumption advisory is in effect.

A study conducted between 1988 and 1991 found significant groundwater contamination, consisting mainly of trichloroethene and tetrachloroethene. Due to widespread contamination, all residential wells in the area were reportedly closed and residences were hooked up to another water main.

Contaminants Present

Soil:
- VOCs
- SVOCs
- PCBs
- inorganic constituents

Groundwater:
- trichloroethene
- tetrachloroethene

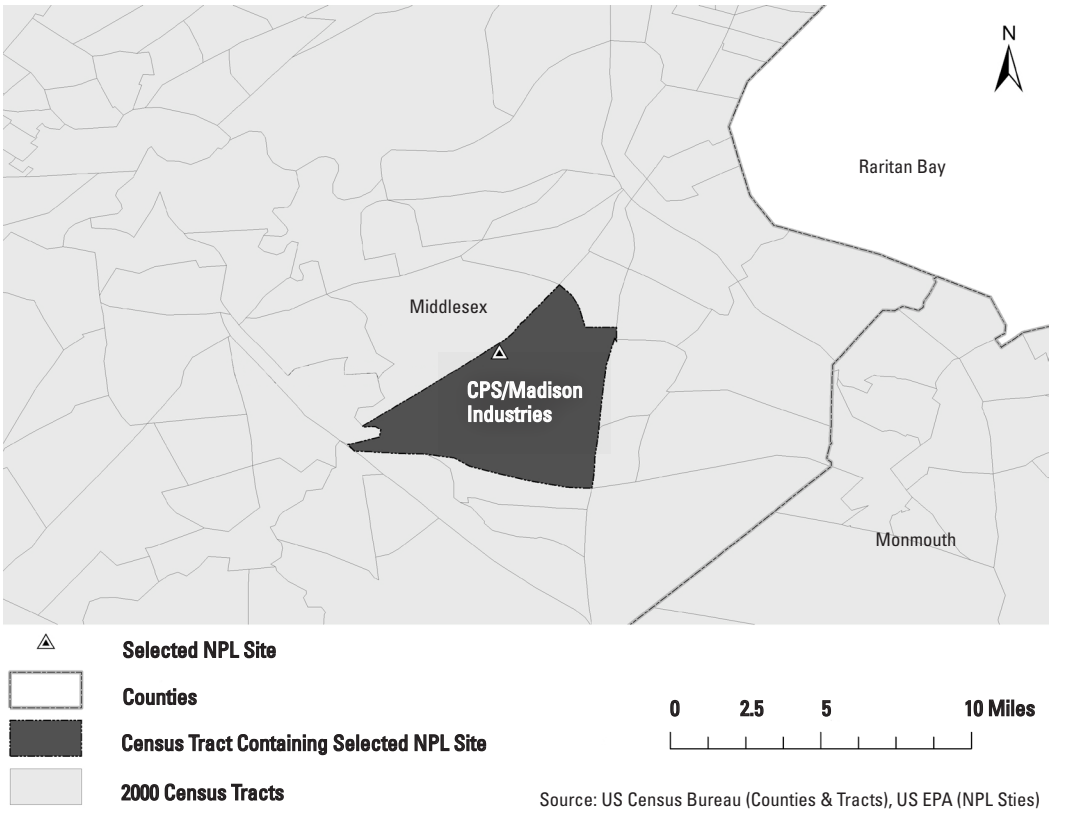
Surface water:
- PCBs

Building interiors:
- elevated levels of PCBs and metals

[129] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/region02/superfund/npl/0201112c.pdf.

CPS/Madison Industries

Middlesex County, New Jersey
HRS Score: 69.73



Demographic Profile

Census Tract No.: 0078.01
Total Population: 3,032
Median Age: 38.6
Children 9 and under: 334
Persons 75 and older: 176
Percent Minority: 24.11
Percent Hispanic: 7.12
Median Household Income in 1999: $52,284

Site Description[130]

Added to the NPL on September 8, 1983, this site contains two adjacent manufacturing facilities on a 35-acre tract of land. CPS, which is no longer in operation, processed, treated and stored organic chemicals used in the production of water treatment agents, lubricants, oil field chemicals and anti-corrosive agents. The company generated spent halogenated solvents that were shipped off-site for disposal. Hazardous wastes were stored in tanks or containers. Madison Industries is still in operation and continues to handle hazardous materials at the site. Madison produces zinc compounds for fertilizers, pharmaceuticals and food additives.

Since 1967, the two companies have repeatedly dumped and discharged chemicals into the public sewer system as well as onto their respective properties. To date, 32 municipal wells have closed due to contamination. Approximately 1,000 people live within a half mile of the site. Prickett's Brook and Pond have also been contaminated. These waters are not used for recreation or as water supplies, but children who play nearby may suffer adverse health effects if they come in contact with or ingest the water or sediments. The Perth Amboy well field is down gradient of the site and may be impacted further if the recovery well system is not properly monitored and maintained.

Contaminants Present

Groundwater:

- VOCs
- heavy metals including zinc, cadmium, copper, lead

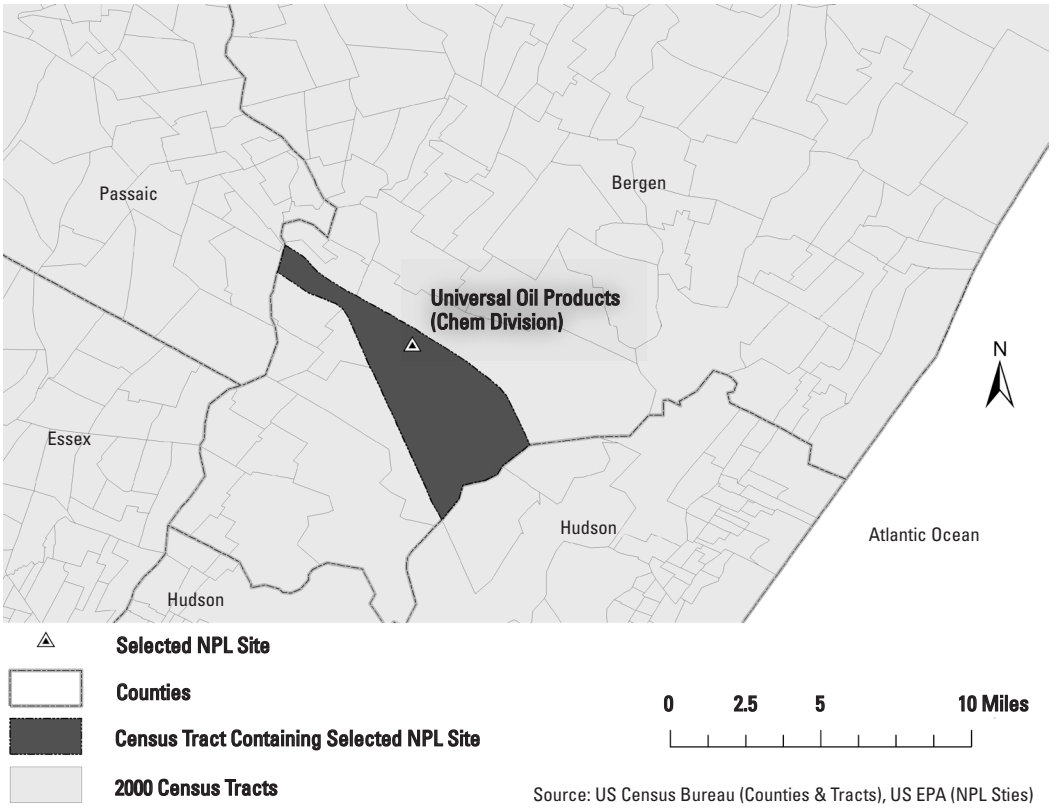
Sediments and surface water of Prickett's Pond:

- zinc
- VOCs

[130] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/region02/superfund/npl/0200109c.pdf.

Universal Oil Products (Chemical Division)

Bergen County, New Jersey
HRS Score: 54.63



Demographic Profile

Census Tract No.: 0120
Total Population: 8,716
Median Age: 37.9
Children 9 and under: 938
Persons 75 and older: 616
Percent Minority: 20.32
Percent Hispanic: 10.65
Median Household Income in 1999: $50,163

Site Description[131]

The Universal Oil Products (Chemical Division) site was added to the NPL on September 8, 1983. Various chemicals were manufactured on this 75-acre site from 1932 to 1979, when Universal Oil Products ceased operations and dismantled the plant. From 1960 to 1979, the company also recovered solvents and waste chemicals.

Approximately 4.5 million gallons of these wastes were dumped into unlined lagoons. This resulted in contamination of the soil, surface water and groundwater. Approximately 36,500 people within three miles of the site depend on groundwater as their drinking water source. The site is in a coastal wetland management area of the Hackensack River Basin. Ackerman's Creek, a tributary to Berry's Creek, flows through the site. These and other area surface waters are used by local residents for recreation.

Contaminants Present

Groundwater:
- VOCs, including benzenes and TCE
- vinyl chloride
- toluene
- PCBs
- lead

Sediments:
- PCBs

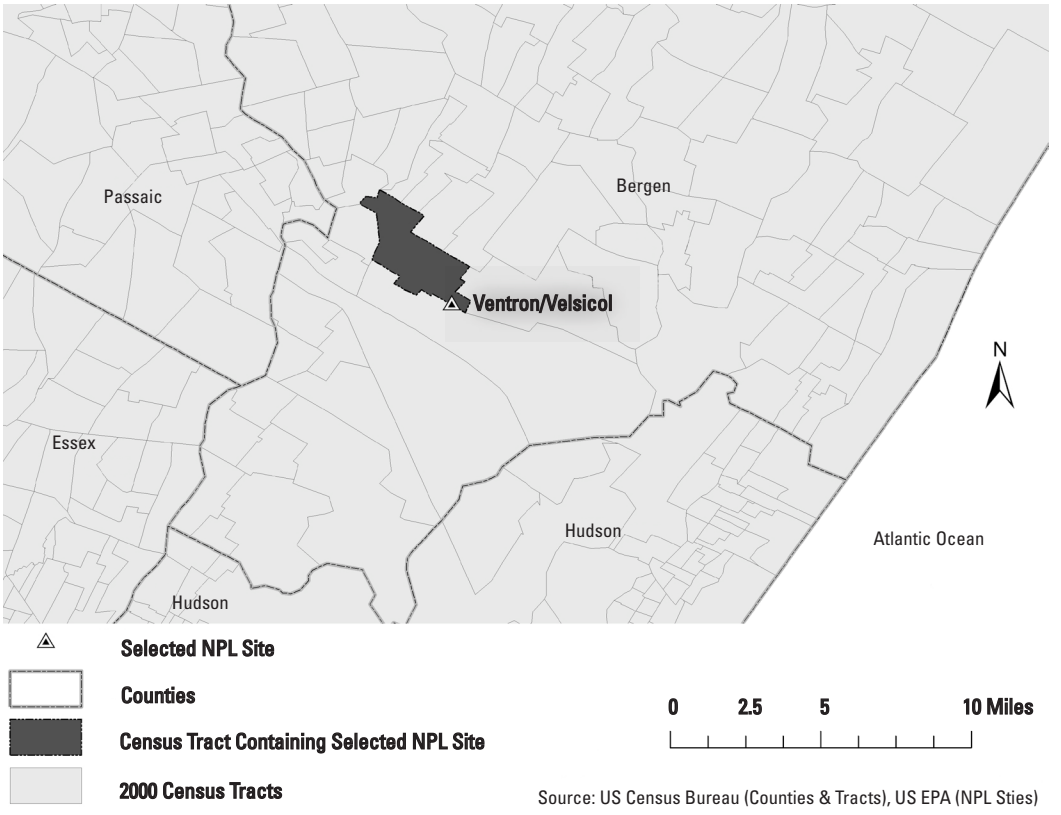
Soils:
- VOCs
- PCBs
- PAHs
- lead

Surface water:
- VOCs

[131] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/region02/superfund/npl/0200101c.pdf.

Ventron/Velsicol

Bergen County, New Jersey
HRS Score: 51.38



Demographic Profile

Census Tract No.: 0600
Total Population: 7,708
Median Age: 40.3
Children 9 and under: 948
Persons 75 and older: 616
Percent Minority: 9.08
Percent Hispanic: 7.30
Median Household Income in 1999: $60,859

Site Description[132]

Added to the NPL on September 21, 1984, this 40-acre site is a former chemical processing plant that operated from 1929 to 1974. Approximately 160 tons of process waste is believed to have been buried on-site. Ventron buildings were abandoned and demolished in 1974, and two new buildings now stand on the site where the old mercury processing plant stood. One is a food distribution center and the other is used for warehousing activities.

The site is located in a densely populated industrialized area, but access is restricted. Contaminants still remain on the site and could potentially migrate by groundwater and air. Discharges from the facility have contaminated Berry's Creek and neighboring wetlands with mercury and other chemicals. Mercury levels in the sediment adjacent to the property are among the highest known in freshwater ecosystems nationwide.

Exposure to site-related contaminants could occur by drinking or direct contact with the water or sediments in the creek. On-site workers may be exposed to contaminants located in the soils and sediments. Humans and wildlife could also be exposed to mercury via consumption of organisms in Berry's Creek.

Contaminants Present

Soil, sediments, groundwater:

- mercury and other contaminants

[132] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/region02/superfund/npl/0200674c.pdf.

Vineland Chemical Co., Inc.

Cumberland County, New Jersey
HRS Score: 59.16

Demographic Profile

Census Tract No.: 0409.01
Total Population: 2,749
Median Age: 37.1
Children 9 and under: 354
Persons 75 and older: 174
Percent Minority: 33.14
Percent Hispanic: 24.01
Median Household Income in 1999: $44,962

Site Description[133]

Added to the NPL on September 21, 1984, this 54-acre site served as a location for Vineland Chemical's production of arsenic-based herbicides from 1950-1994. The site is mostly covered with vegetation and included manufacturing and storage buildings, a laboratory, lagoons and former chicken coops. Prior to 1977, the company stored byproduct arsenic salts in open piles and in the chicken coops.

As the result of water contacting the exposed piles, arsenic has contaminated the subsurface soils, groundwater and the nearby Maurice River and Union Lake. The lower Maurice River system extends 26 miles from the lake to the Delaware Bay. Approximately 57,000 people depend on the groundwater system in the area, either through private or municipal wells, for drinking water. Residential areas surround the site and numerous towns and villages are close to the Maurice River.

A health screening study showed that some company employees had elevated concentrations of arsenic in their blood and urine. Accidental ingestion, direct contact or inhalation of the contaminants may subject workers or trespassers to carcinogenic and non-carcinogenic risks. Downstream residents who use well water also may be subject to health risks. In 1982, the company began operating a wastewater treatment system to remove arsenic, but the system cannot accommodate all the contaminated water leaving the site each day.

Contaminants Present

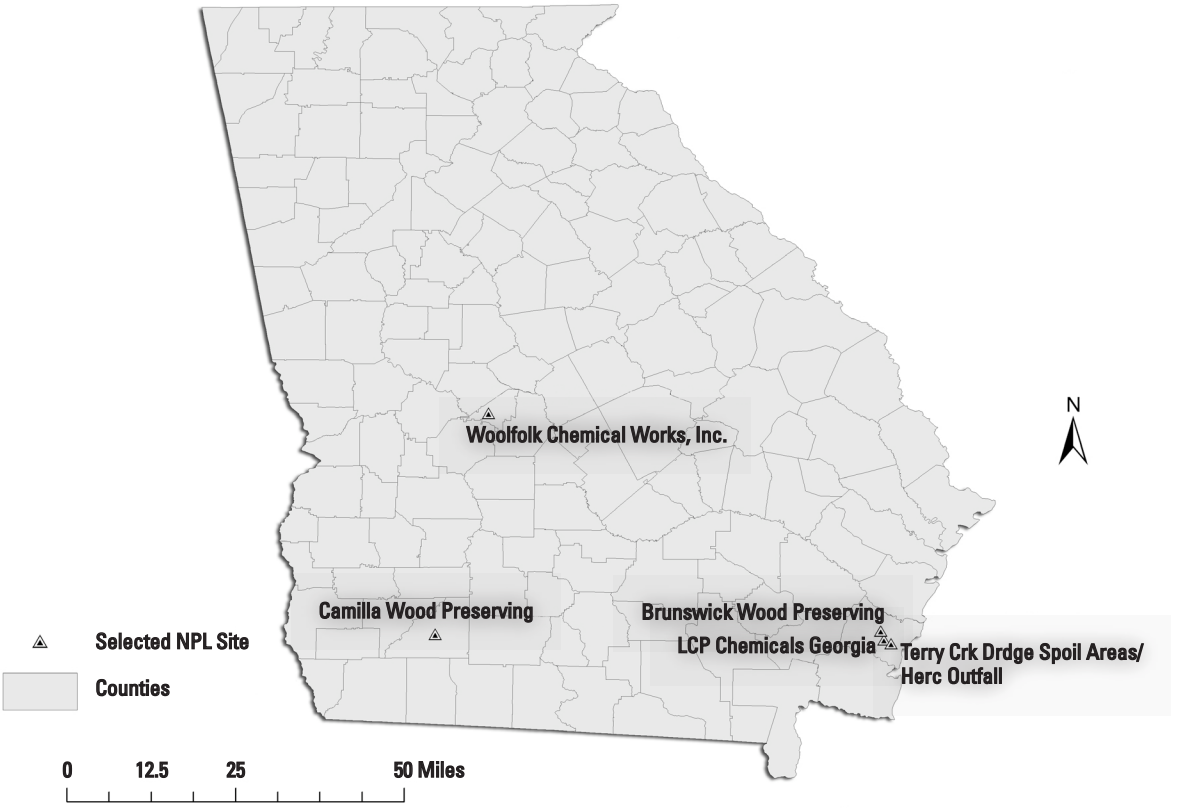
Groundwater:
- inorganic and organic arsenic
- metals

Surface soil:
- arsenic
- small amounts of other metals

Subsurface soil, Sediments and Surface Waters of Union Lake and Maurice River:
- arsenic

[133] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/region02/superfund/npl/0200209c.pdf.

GEORGIA

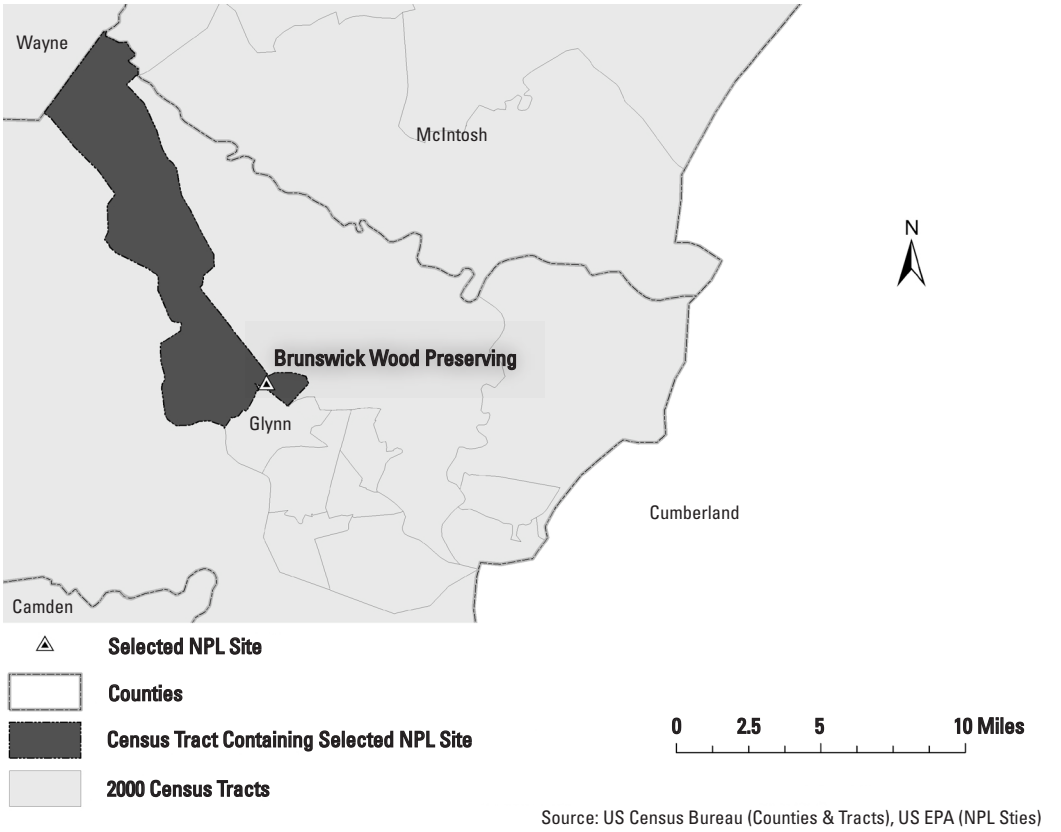


Source: US Census Bureau (State & Counties), US EPA (NPL Sties)

As of the 2000 Census, 30,498 Georgians lived in the census tracts containing the five profiled NPL sites. Of those, 4,229 were children aged nine and younger. An additional 1,864 were persons aged 75 and older. In all five census tracts, the median household income for 1999 was below that for the nation.

Brunswick Wood Preserving

Glynn County, Georgia
HRS Score: 54.49



Source: US Census Bureau (Counties & Tracts), US EPA (NPL Sties)

Demographic Profile

Census Tract No.: 0004.01
Total Population: 6,115
Median Age: 35.7
Children 9 and under: 921
Persons 75 and older: 198
Percent Minority: 12.02
Percent Hispanic: 1.42
Median Household Income in 1999: $39,612

Site Description[134]

This 84-acre site in Brunswick, Georgia, was used to treat wood from 1958 to 1991. The wood was treated using pentachlorophenol, creosote and CCA (chromium, copper, arsenic). These chemicals were stored in drums and eventually contaminated the soil. In February 1991, the company declared bankruptcy and the following month EPA responded to a fire at the facility.

There are six municipal wells within a four-mile radius of the site, which serve over 6,000 people. All the municipal wells and most, if not all, of the private wells draw water from a deeper aquifer. Private wells in the area have been sampled extensively since 1991 but have not been impacted by the site. In addition, the site is adjacent to the tidally influenced Burnett Creek.

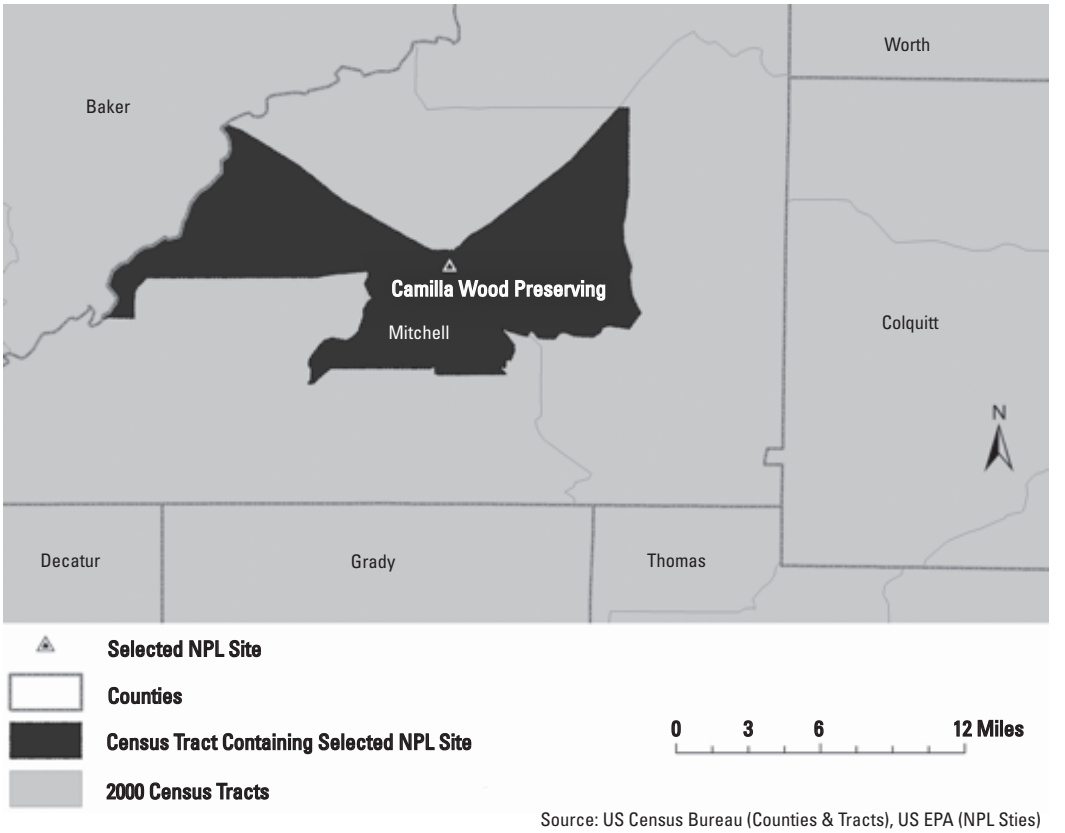
Contaminants Present

- PCP
- creosote
- CCA (chromium, copper, arsenic)

[134] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/region4/waste/npl/nplga/brunwpga.htm.

Camilla Wood Preserving Company

Mitchell County, Georgia
HRS Score: 50



Source: US Census Bureau (Counties & Tracts), US EPA (NPL Sties)

Demographic Profile

Census Tract No.: 9804
Total Population: 7,431
Median Age: 34.2
Children 9 and under: 910
Persons 75 and older: 403
Percent Minority: 53.29
Percent Hispanic: 2.64
Median Household Income in 1999: $30,625

Site Description[135]

Added to the NPL on July 28, 1998, this former wood preserving facility used creosote to treat railroad ties and poles from 1947 through the 1980s. In the 1970s, pentachlorophenol (PCP) was introduced as a preservative for pole treatment and was the exclusive preservative for poles by the 1980s. The plant ceased manufacture of railroad ties in the late 1980s and stopped wood treating operations in 1991.

That year, EPA conducted an emergency response action because soil and ground water were contaminated with wood preserving materials. EPA's actions included placement of a fence along the perimeter of the facility. Sampling indicated that 35,000 cubic yards of soils were contaminated. There were also vast quantities of wastewater containing PCP and creosote, which were shipped off-site to a Chemwaste facility in Texas.

Contaminants Present

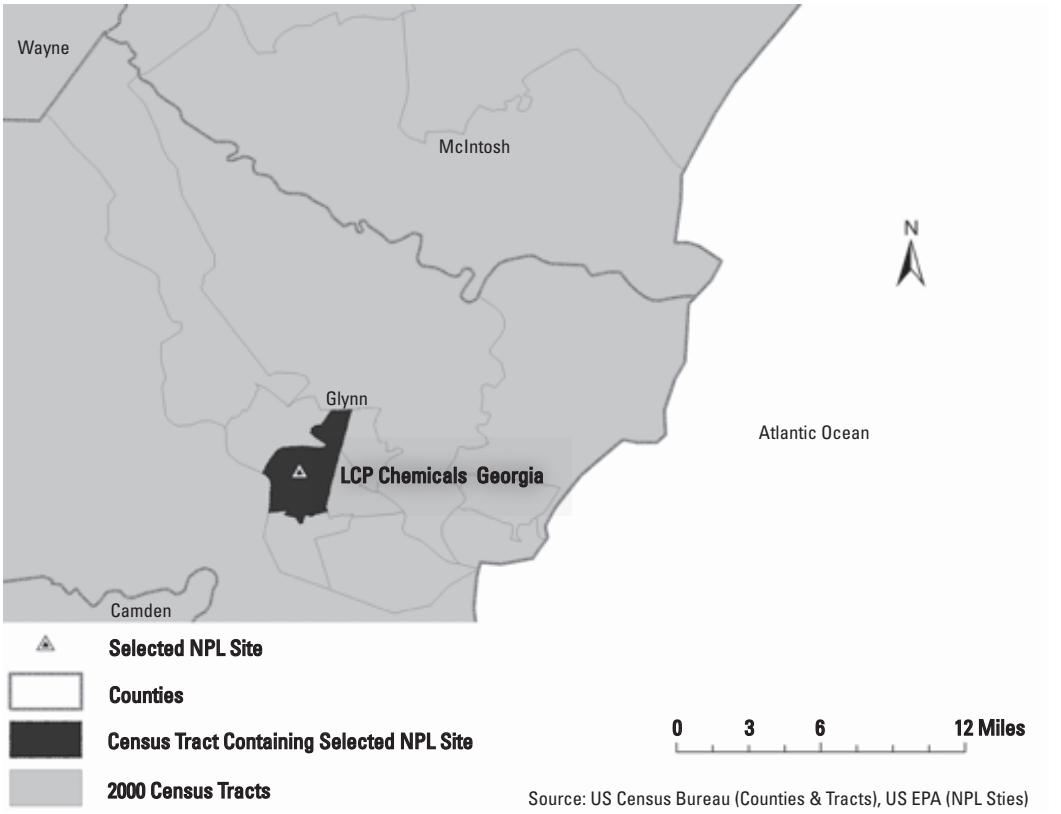
Soils and groundwater:

- wood preserving materials (PCP, creosote)
- PAHs

[135] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/region4/waste/npl/nplga/camilaga.htm.

LCP Chemicals Georgia

Glynn County, Georgia
HRS Score: 60.14



Demographic Profile

Census Tract No.: 0007
Total Population: 7,224
Median Age: 33.8
Children 9 and under: 1,198
Persons 75 and older: 467
Percent Minority: 63.10
Percent Hispanic: 2.03
Median Household Income in 1999: $23,801

Site Description[136]

Added to the NPL on June 17, 1996, this 550-acre site is the top priority site in Georgia. Over the last 70 years, an oil refinery, paint manufacturing company, power plant and chlor-alkali plant have all operated at the site, the majority of which is a tidal marsh. Since 1919, the site has been occupied by at least five major companies: ARCO, Georgia Power Company, Dixie Paints and Varnish Company (currently O'Brien Company), Allied Chemicals, Inc., (currently Allied Signal) and the Hanlin Group subsidiary, LCP Chemicals-Georgia, Inc.

Plant soil, groundwater and marsh biota are substantially contaminated with mercury, polychlorinated biphenyls (PCBs), metals and semi-volatile compounds. EPA estimates that more than 380,000 pounds of mercury was "lost" in the area between 1955 and 1979. Mercury and PCBs have been detected in aquatic life at levels sufficient to produce a ban on commercial fishing in the area. There is also a seafood consumption advisory for part of nearby Turtle River and all of Purvis Creek. Upon the plant closing in 1994, Georgia asked EPA to take immediate action at the site to address chlorine gas releases and the flow of contamination into an adjacent saltwater tidal marsh, which provides habitat for endangered species. To date, EPA has recovered over 400,000 pounds of mercury. Approximately 13 acres of marsh and marsh channels adjacent to the site have been excavated.

Contaminants Present

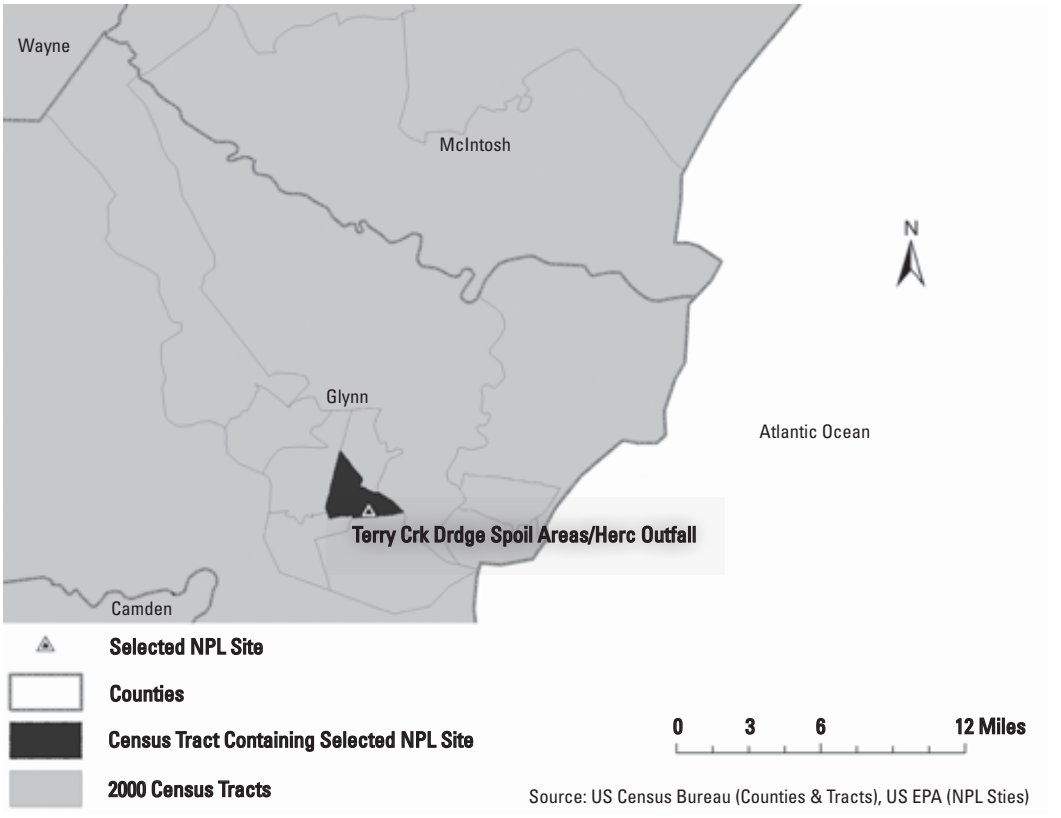
Plant site soils, groundwater, and marsh biota:

- mercury
- PCBs
- semi-volatile contamination

[136] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/region4/waste/npl/nplga/lcpincga.htm.

Terry Creek Dredge Spoil Areas/Hercules Outfall

Glynn County, Georgia
HRS Score: 50.18



Demographic Profile

Census Tract No.: 0005.01
Total Population: 3,928
Median Age: 42.9
Children 9 and under: 479
Persons 75 and older: 573
Percent Minority: 50.53
Percent Hispanic: 1.25
Median Household Income in 1999: $27,768

Site Description[137]

Proposed to the NPL on April 1, 1997, the Terry Creek Dredge Spoil Areas/ Hercules Outfall site has not been finalized on the NPL. This site was an outfall area for a former pesticide manufacturer in Brunswick, Georgia. Toxaphene, a chlorinated pesticide, was produced at the Hercules plant between 1948 and 1980. During that period, toxaphene was discharged through an outfall ditch into Dupree Creek, which flows into Terry Creek.

The U.S. Army Corps of Engineers periodically dredged portions of Dupree Creek and Terry Creek. Dredge material was placed in several areas near the confluence of the two creeks, as well as other nearby locations. The dredged material contained highly contaminated sediments. Seafood monitoring has demonstrated a significant reduction in total toxaphene concentrations since a 2001 cleanup action. However, fish consumption advisories still exist in parts of both creeks.

Contaminants Present

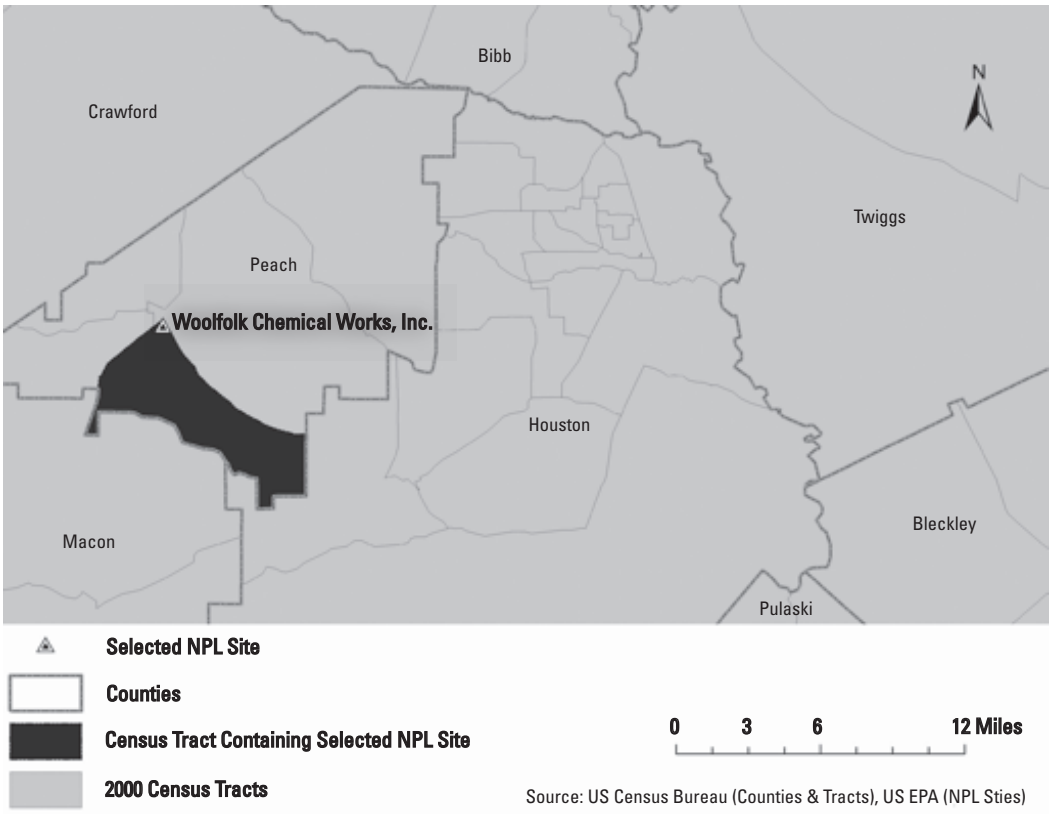
Outfall ditch sediments, creek sediments and dredge disposal areas:

- toxaphene

[137] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/region4/waste/npl/nplga/tercrkpr.htm.

Woolfolk Chemical Works, Inc.

Peach County, Georgia
HRS Score: 42.24



Demographic Profile

Census Tract No.: 0404
Total Population: 5,800
Median Age: 23.9
Children 9 and under: 721
Persons 75 and older: 223
Percent Minority: 95.29
Percent Hispanic: 0.71
Median Household Income in 1999: $21,094

Site Description[138]

Woolfolk Chemical Works, Inc. was added to the NPL on August 30, 1990. Contamination on this 31-acre site resulted from the production, formulation and packaging of pesticides, herbicides and insecticides, which took place on the site since 1910. In the early 1980s, the Georgia Environmental Protection Division investigated the site based on citizen complaints and found that the company was discharging waste products to a drainage corridor heading away from the site. The property was later transferred to another company, and a cleanup action, which had been agreed to as part of the transfer, revealed more extensive contamination.

There are 48 contaminants of potential concern at the site and the majority of the risk stems from arsenic contamination. In 1990, contamination was found to have spread to surrounding residential properties. Contamination was eventually removed from 26 residential properties, including 22,900 tons of soil and debris. A PRP associated with the site also purchased about 17 properties and converted them to commercial use. However, EPA reports continuing problems with PRP compliance with orders pertaining to cleanup of one of the site's operable units.

Contaminants Present

- 48 contaminants, primarily arsenic

[138] Site description and contaminant information obtained from NPL site fact sheet, *available at* http://www.epa.gov/region4/waste/npl/nplga/wolfokga.htm.

Appendix A – Communities at Risk from 50 Sites

State	Site Name (County)	Date Added to NPL	HRS Score	Description of Site	Population Within 1 Mile	Population in Census Tract Containing Site	Children Aged 9 and Younger in Tract	Persons Aged 75 and Older in Tract	Median Income (1999) in Tract	% Minority in Tract	% Hispanic in Tract*
California	Aerojet General Corp. (Sacramento County)	Sept. 8, 1983	54.63	5,900-acre site used for manufacturing rocket propellants.	5,001-10,000	4,751	582	339	$84,740	22.6	4.4
	Iron Mountain Mine (Shasta County)	Sept. 8, 1983	56.16	4,400-acre site mined for iron, silver, gold, copper, zinc and pyrite from the 1860s until 1963.	0-100	3,863	387	204	$41,607	8.4	3.6
	McCormick & Baxter Creosoting (San Joaquin County)	Oct. 14, 1992	74.86	29-acre former wood-preserving facility where utility poles and railroad ties were treated with chemicals including creosote and pentachlorophenol (PCP).	10,001-50,000	1,525	306	58	$22,348	71.7	68.3
	Operating Industries Landfill (Los Angeles County)	June 10, 1986	57.22	190-acre residential, commercial, liquid, and hazardous waste landfill.	10,001-50,000	4,309	462	364	$46,708	61.1	46.4
	Stringfellow (Riverside County)	Sept. 8, 1983	61.4	17-acre site located in a canyon and served as a hazardous waste disposal facility from 1956-1972.	1,001-5,000	8,005	1,491	262	$43,132	52.5	58.4
Texas	ALCOA/Point Comfort/ Lavaca Bay (Calhoun County)	Feb. 23, 1994	50	Site consists of the 3,500-acre ALCOA plant, an associated 420-acre dredge spoil island, and portions of Lavaca Bay and western Matagorda Bay. The plant used mercury cathodes to produce chlorine gas and sodium hydroxide.	5,001-10,000	1,515	220	86	$40,300	7.39	14.59
	Gulfco Marine Maintenance (Brazoria County)	Apr. 30, 2003	50	40-acre site served as a barge cleaning, sand blasting, and repair facility.	101-1,000	2,307	286	65	$38,542	10.62	10.92
	Jasper Creosoting Company Inc. (Jasper County)	July 28, 1998	50	21-acre former wood treatment facility that utilized coal-tar creosote and pentachlorophenol.	1,001-5,000	3,685	543	261	$27,926	44.48	7.06
	R&H Oil/Tropicana (Bexar County)	Proposed on June 14, 2001	50	7-acre site that contains an inactive petroleum refinery and a gasoline blending facility.	10,001-50,000	8,292	1,602	362	$24,200	39.58	93.96
	Star Lake Canal (Jefferson County)	July 27, 2000	50	Site includes the lengths of two industrial canals (Star Lake Canal and Jefferson Canal), which were constructed in the late 1940s as industrial wastewater and storm water outfalls.	101-1,000	5,210	769	318	$41,890	4.32	5.68

State	Site Name (County)	Date Added to NPL	HRS Score	Description of Site	Population Within 1 Mile	Population in Census Tract Containing Site	Children Aged 9 and Younger in Tract	Persons Aged 75 and Older in Tract	Median Income (1999) in Tract	% Minority in Tract	% Hispanic in Tract*
New York	Computer Circuits (Soffolk County)	May 10, 1999	50	One-story building (about 0.4 acres) on a 1.7-acre lot; from 1969 to 1977, used for the manufacture of printed circuit boards for military and commercial applications.	5,001-10,000	1,844	212	61	$78,725	7.86	4.12
	Consolidated Iron & Metal (Orange County)	June 14, 2001	50	7-acre inactive car and scrap metal junkyard bordering the Hudson River where scrap metal processing and storage took place for about 40 years.	10,001-50,000	5,587	1,278	173	$25,016	74.15	23.27
	Lawrence Aviation Industries, Inc. (Suffolk County)	Feb. 4, 2000	50	160-acre site used to manufacture titanium sheeting for the aeronautics industry.	5,001-10,000	7,527	1,111	359	$57,330	11.58	9.1
	Liberty Industrial Finishing (Nassau County)	June 10, 1986	50.65	30-acre site used for airplane parts manufacturing and associated metal finishing activities during WW II and the Korean War; later converted to an industrial park.	10,001-50,000	3,728	517	226	$69,482	7.56	6.12
	Old Roosevelt Field Contaminated Groundwater Area (Nassau County)	May 11, 2000	50	Contaminated ground water plume on part of Roosevelt Field, which was used for aviation activities from 1911-1951.	10,001-50,000	4,104	649	351	$102,525	5.85	2.63
Florida	American Creosote Works (Pensacola Pit) (Escambia County)	Sept. 8, 1983	58.41	18-acre site that operated as a wood-treating facility from 1902-1981, first using primarily creosote, then pentachlorophenol.	5,001-10,000	3,131	392	308	$23,164	48.07	1.95
	Escambia Wood – Pensacola (Escambia County)	Dec. 16, 1994	50	26-acre abandoned wood preserving facility that treated wood products with creosote and pentachlorophenol from 1942-1982.	5,001-10,000	5,481	410	69	$22,150	17.48	1.77
	Normandy Park Apartments (Hillsborough County)	Proposed on Feb. 13, 1995	49.98	The Normandy Park Apartments occupy 8.25 acres of land that was operated as a battery breaking and lead smelting facility from the early 1950s through 1963.	10,001-50,000	6,149	851	264	$58,607	22.23	12.72
	Reeves Southeastern Galvanizing Corp. (Hillsborough County)	Sept. 8, 1983	58.75	Site includes 2 areas: the 17-acre Reeves Southeastern Galvanizing facility, and the 11-acre Reeves Southeastern Wire facility, which together generated caustic, rinse, acid process, and perhaps plating wastes.	1,001-5,000	3,760	617	110	$33,044	11.3	9.04
	Stauffer Chemical Corp. (Tarpon Springs) (Pinellas County)	May 31, 1994	50	160-acre plant produced elemental phosphorous using phosphate ore.	5,001-10,000	2,996	356	227	$46,855	9.15	4.37

State	Site Name (County)	Date Added to NPL	HRS Score	Description of Site	Population Within 1 Mile	Population in Census Tract Containing Site	Children Aged 9 and Younger in Tract	Persons Aged 75 and Older in Tract	Median Income (1999) in Tract	% Minority in Tract	% Hispanic in Tract*
Illinois	Circle Smelting Corp. (Clinton County)	Proposed on June 17, 1996	70.71	Facility was constructed in 1904 as a zinc smelter, and began recovering zinc from scrap metals.	1,001-5,000	6,427	973	453	$46,859	1.24	1.1
	DePue/New Jersey Zinc/Mobil Chem Corp. (Bureau County)	May 10, 1999	70.71	Zinc smelting facility began operations in 1903; expanded into several facilities consisting of over 860 acres. The original plant produced slab zinc, zinc dust, and sulfuric acid for the automobile and appliances industries.	1,001-5,000	4,168	598	347	$37,181	10.27	24.33
	Indian Refinery – Texaco Lawrenceville (Lawrence County)	Dec. 1, 2000	56.67	990-acre site operated as a refinery from the early 1900s until 1995.	1,001-5,000	3,459	354	591	$30,714	1.88	1.16
	Parsons Casket Hardware Co. (Boone County)	July 22, 1987	55.58	6-acre site used as an electroplating facility from the 1920s-1982.	5,001-10,000	7,725	1,453	358	$39,041	20.47	26.64
	Sauget Area 1 (St. Clair County)	Proposed on Sept. 13, 2001	61.85	Site consists of twelve (12) contaminated sources that include over 3.5 miles of Dead Creek and adjacent sites. Dead Creek was used around the 1930s for waste disposal. Remaining sources include inactive landfills, former disposal areas, and former sand pits.	5,001-10,000	7,152	1,351	282	$30,958	40.21	2.45
Pennsyl-vania	East Tenth Street (Delaware County)	Proposed on Jan. 18, 1994	67.68	36-acre property used starting in 1910 to manufacture rayon and then, beginning in 1958, cellophane.	5,001-10,000	2,314	355	111	$28,219	8.56	1.77
	Lower Darby Creek Area (Delaware County)	June 14, 2001	50	Site consists of two landfills (Clearview and Folcroft), which operated from the 1950s to the 1970s, accepting municipal, demolition and hospital waste.	5,001-10,000	3,864	566	178	$45,353	2.07	0.78
	Sharon Steel (Farrell Works Disposal Area) (Mercer County)	Jul. 28, 1998	50	400-acre area used to dispose of wastes generated in steel production, including spent pickle liquor acid, slag, and sludge.	1,001-5,000	1,871	255	275	$27,604	14.38	0.43
	UGI Columbia Gas Plant (Lancaster County)	May 31, 1994	50.78	1.5-acre site used for gas manufacturing; during the years of active operations, overflows from an on-site tar separator were directed to an open ditch that led to the Susquehanna River.	5,001-10,000	1,913	341	68	$30,789	13.17	8.21
	Watson Johnson Landfill (Bucks County)	Sept. 13, 2001	71	About 32 acres of the 56-acre site was a former landfill that accepted both municipal and industrial waste.	1,001-5,000	5,226	760	355	$47,269	2.99	1.21

State	Site Name (County)	Date Added to NPL	HRS Score	Description of Site	Population Within 1 Mile	Population in Census Tract Containing Site	Children Aged 9 and Younger in Tract	Persons Aged 75 and Older in Tract	Median Income (1999) in Tract	% Minority in Tract	% Hispanic in Tract*
Ohio	Armco, Inc., Hamilton Plant (Butler County)	Proposed on Apr. 30, 2003	69.34	120-acre site; southern parcel operated as a steel mill, producing both coke and molten iron.	1,001-5,000	2,543	369	102	$34,630	6.8	0.63
	Diamond Shamrock Corp. (Painesville Works) (Lake County)	Proposed on May 10, 1993	50	500-acre site; from 1912-1972, produced caustic soda, chromate compounds, chlorine, chlorinated paraffins, and coke; also disposed of spent pickle liquor from nearby steel industries.	1,001-5,000	3,337	400	182	$48,125	1.8	0.72
	Dover Chemical Corp. (Tuscawaras County)	Proposed on May 10, 1993	47.19	60-acre site made up of 3 parcels, including a chemical manufacturing facility that produced products used to make extreme pressure lubricants, plasticizers and flame retardants for vinyl products.	1,001-5,000	5,206	572	586	$43,830	1.63	0.61
	Nease Chemical (Columbiana County)	Sept. 8, 1983	50	44-acre site; from 1961-1973, used to produce various chemical compounds including the pesticide mirex, a probable human carcinogen.	101-1,000	5,491	728	338	$35,038	1.91	0.53
	North Sanitary Landfill (Montgomery County)	May 31, 1994	50	102-acre site; used for landfilling industrial and municipal wastes into unlined gravel pits.	5,001-10,000	6,491	1,201	373	$24,875	14.9	1.96
Michigan	Barrels, Inc. (Ingham County)	Oct. 4, 1989	42.24	2-acre site, which from 1964-1981, accepted metal barrels from industrial facilities for cleaning and repainting; waste residues were allegedly dumped directly onto the ground as the first step in recycling the drums.	10,001-50,000	1,467	319	40	$28,681	41.58	24.81
	Bay City Middlegrounds (Bay County)	Proposed on Feb. 13, 1995	50	40-acre inactive landfill and dredged sediment disposal area on Middlegrounds Island in the Saginaw River.	5,001-10,000	4,363	632	384	$30,264	3.71	4.54
	Bofors Nobel, Inc. (Muskegon County)	Mar. 31, 1989	53.42	85-acre site; consists of an operating chemical production facility and ten abandoned sludge lagoons.	1,001-5,000	4,191	673	160	$37,663	5.61	3.82

State	Site Name (County)	Date Added to NPL	HRS Score	Description of Site	Population Within 1 Mile	Population in Census Tract Containing Site	Children Aged 9 and Younger in Tract	Persons Aged 75 and Older in Tract	Median Income (1999) in Tract	% Minority in Tract	% Hispanic in Tract*
	Rockwell International Corp. (Allegan Plant) (Allegan County)	Jul. 22, 1987	52.15	30-acre site on which parts for trucks and construction equipment were manufactured, generating wastewater and oils that were discharged into a wetland area, a series of lagoons, and the Kalamazoo River.	1,001-5,000	4,838	697	402	$39,539	8.56	2.85
	State Disposal Landfill, Inc. (Kent County)	Feb. 21, 1990	42.24	37.6-acre former landfill; from 1966-1976 accepted residential, commercial and other wastes.	1,001-5,000	6,056	868	175	$66,458	3.98	1.04
New Jersey	Cornell Dubilier Electronics, Inc. (Middlesex County)	Jul. 28, 1998	50.27	From 1936-1962, electronic parts and components manufactured at this site; PCB-contaminated materials and other hazardous substances were allegedly dumped directly onto the soil.	10,001-50,000	5,950	818	395	$65,942	35.61	9.78
	CPS/Madison Industries (Middlesex County)	Sept. 8, 1983	69.73	35-acre site consists of 2 chemical manufacturing facilities; one is still in operation and continues to handle hazardous materials.	1,001-5,000	3,032	334	176	$52,284	24.11	7.12
	Universal Oil Products (Chemical Division) (Bergen County)	Sept. 8, 1983	54.63	75-acre site where various chemicals were manufactured from 1932-1979; solvents and waste chemicals were also recovered on site.	10,001-50,000	8,716	938	616	$50,163	20.32	10.65
	Ventron/Velsicol (Bergen County)	Sept. 21, 1984	51.38	40-acre site; former chemical processing plant (including a mercury processing facility) that operated from 1929-1974.	10,001-50,000	7,708	948	616	$60,859	9.08	7.3
	Vineland Chemical Co., Inc. (Cumberland County)	Sept. 21, 1984	59.16	54-acre site where arsenic-based herbicides were produced from 1950-1994; by-product arsenic salts were stored in open piles and in chicken coops.	1,001-5,000	2,749	354	174	$44,962	33.14	24.01

State	Site Name (County)	Date Added to NPL	HRS Score	Description of Site	Population Within 1 Mile	Population in Census Tract Containing Site	Children Aged 9 and Younger in Tract	Persons Aged 75 and Older in Tract	Median Income (1999) in Tract	% Minority in Tract	% Hispanic in Tract*
Georgia	Brunswick Wood Preserving (Glynn County)	Apr. 1, 1997	54.49	84-acre site used to treat wood with pentachlorophenol, creosote and CCA (chromium, copper, arsenic) from 1958-1991.	1,001-5,000	6,115	921	198	$39,612	12.02	1.42
	Camilla Wood Preserving Company (Mitchell County)	Jul. 28, 1998	50	Former wood preserving facility; used creosote to treat railroad ties and poles from 1947 through the 1980s; in later years used pentachlorophenol (PCP) for pole treatment.	1,001-5,000	7,431	910	403	$30,625	53.29	2.64
	LCP Chemicals Georgia (Glynn County)	Jun. 17, 1996	60.14	550-acre site; over the last 70 years has served as an oil refinery, paint manufacturing company, power plant and chlor-alkali plant.	1,001-5,000	7,224	1,198	467	$23,801	63.1	2.03
	Terry Creek Dredge Spoil Areas/Hercules Outfall (Glynn County)	Proposed on Apr. 1, 1997	50.18	Site was an outfall area for a former pesticide manufacturer. Toxaphene, a chlorinated pesticide, was produced at the Hercules plant from 1948-1990.	1,001-5,000	3,928	479	573	$27,768	50.53	1.25
	Woolfolk Chemical Works, Inc. (Peach County)	Aug. 30, 1990	42.24	31-acre site contaminated as the result of on-site production, formulation and packaging of pesticides, herbicides and insecticides.	5,001-10,000	5,800	721	223	$21,094	95.29	0.71

* This refers to all those who classified themselves as "Spanish/Hispanic/Latino" for Census 2000. These people may or may not have been also classified as minorities. See the methodology discussion in Appendix B for more.

Appendix B – Methodology

Site Selection

The top 10 most populous states are host to a total of 796 National Priorities List (NPL) sites:[139]

1. 631 are "final" NPL sites but are still awaiting cleanup. Many were first placed on the NPL as long as two decades ago.
2. 28 are "proposed" NPL sites, meaning that EPA is still considering public comment on whether they should be placed on the NPL in final status.
3. 137 have been deleted from the NPL.

Because sites have typically been listed for long periods of time, and are often very large complicated properties with multiple sources that contributed hundreds of contaminants, it is impossible to detail their tortured histories in anything less than thousands of pages. For readers interested in investigating their status in more depth, we recommend the following Internet accessible resources:

1. the NPL site fact sheets maintained by the EPA regional offices, available online by selecting the state and then site of interest at www.epa.gov/superfund/sites/npl/npl.htm; and
2. EPA's Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) at http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm.

More detailed information, including site-specific information about responsible parties, cleanup actions and funding, is available by ordering the desired information in CD format (without cost) from EPA. Visit www.epa.gov/superfund/sites/phonefax/products.htm to learn more and place orders.

The criteria we used were designed to capture the risks posed by NPL sites to people who live nearby or to the environment. The steps described below were repeated for each of the 10 states in order to select the five profiled NPL sites in each state.

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[139] *See* U.S. Envtl. Prot. Agency, *National Priorities List Sites in the United States*, http://www.epa.gov/superfund/sites/npl/npl.htm (last visited Feb. 14, 2006). By clicking on individual states, visitors to the site may obtain basic information on each NPL site in the state, as well as links to NPL Site Narratives and current Site Descriptions.

Site Status

From each state's complete list of NPL sites, we eliminated from consideration those sites that have already been deleted or partially deleted from the NPL, along with sites designated "construction complete." Therefore, all of the 50 profiled sites are in the status where construction, for one reason or another, is not complete.[140]

In accordance with the report's focus on appropriations to EPA, we eliminated federal facilities from consideration, since, as explained above, they are funded through mechanisms specific to the agencies responsible for those sites. Because the report focuses on the implications of Superfund's deterioration since 1995, when taxes expired, we imposed one further screen: eliminating sites that were added to the NPL only recently, with one important caveat. Where sites that had been added to the NPL presented a significantly higher risk than older sites, as measured by the Hazard Ranking System scores for that site, we included them in our study.[141] Additionally, some of the sites with high HRS scores that had been proposed to — but not yet finalized on — the NPL were selected due to the relatively higher risks posed by such sites to the surrounding communities.[142] We ask readers to keep in mind that the threats posed by sites that we excluded are not necessarily resolved, and it may take many years of follow-up monitoring and remedial repair until these threats are eliminated.

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[140] Construction complete status last verified April 13, 2006.

[141] The HRS is a complex, multi-factor formula that EPA uses to decide which sites are placed on the NPL. *See Board of Regents of the Univ. of Washington v. EPA*, 86 F.3d 1214, 1217 (D.C. Cir. 1996). The HRS methodology is set forth as Appendix A to the National Contingency Plan, 40 C.F.R. Pt. 300, App. A, and was revised in 1990. *See Hazard Ranking System, Final Rule,* 55 Fed. Reg. 51532 (Dec. 14, 1990). The mathematical model serves as a screening device for evaluating relative risks to health or the environment posed by releases of hazardous substances. *See supra* note 15, and accompanying text; *see also*, *e.g.*, *RSR Corp. v. EPA*, 102 F.3d 1266, 1268 (D.C. Cir. 1997). HRS site scores range from 0 to 100. 40 C.F.R. Pt. 300, App. A, § 2.1.1. EPA proposes sites receiving a score of 28.5 or higher to the NPL. *See Tex Tin Corp. v. EPA*, 935 F.2d 1321, 1322 (D.C. Cir. 1991). The majority of HRS scores for the sites profiled in this report were obtained from Scorecard.org, *available at* http://www.scorecard.org/env-releases/land/rank-sites.tcl. For sites recently proposed to the NPL, HRS scores were obtained from the HRS Documentation Records themselves, available through EPA's electronic docket system, now incorporated into the government-wide Regulations.gov.

[142] "Because cleanup activity is often at an early stage at proposed sites, there generally is considerable work still to be done." Probst, *et al.*, Superfund's Future, *supra* note 9, at 37.

Ordering Individual Sites by HRS Score

Once we had identified sites where construction was not complete, we ranked them in descending order according to their HRS scores, which provide a measure of the site's pre-cleanup risk to human health and the environment.

Identifying the Greatest Risks

These steps yielded non-federal proposed or final NPL sites that had not yet been designated construction complete, have relatively high HRS scores and have, in most cases, been on the NPL for a number of years. From this pool, the challenge was to identify the sites that pose the greatest risk. Two factors entered into this decision: the number of people living near the site and progress on cleanup. The former was an objective piece of readily available information — EPA's CERCLIS database provides ranges for the population living within one mile of any NPL site.[143] The latter — progress on cleanup — was a different matter entirely. In a recent report commissioned by EPA to analyze ways of improving performance measures for the Superfund program ("Success for Superfund: A New Approach for Keeping Score"),[144] Resources for the Future concluded that although EPA provides a great amount of information concerning specific NPL sites in its various databases, "The lack of overall standardization in format, of consistency in the information available, and of regular updates makes it very difficult to get a complete picture of individual sites on the NPL or to compare progress or attributes among sites."[145]

Initially, we used performance measures provided as part of Superfund's Government Performance and Results Act (GPRA) reporting, principally for EPA's assessment of "current human exposure under control" and "contaminated water migration under control."[146] The final selection of sites was based on a qualitative balancing of the status of the sites as measured by these indicators, the population density surrounding the site and the descriptions of site conditions provided in the NPL site fact sheets, which are prepared and maintained by the relevant EPA regional offices. As Resources for the Future noted in its "Success for Superfund" report, however, although the NPL site fact sheets seem to be the

[143] Information for specific sites can be accessed through CERCLIS online, *available at* http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm.

[144] Probst & Sherman, *supra* note 17, at 4.

[145] *Id*. at 7-8.

[146] *Id*. at 3, note 10 (noting that the current human exposure under control and contaminated groundwater migration under control had originally been developed for the RCRA program, which regulates the treatment, storage and disposal of hazardous wastes). Information on the status of specific sites as measured by these two indicators can be accessed through CERCLIS online, *available at* http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm.

most complete source of information for NPL sites, "there is little standardization among the formats used or the information provided."[147] Information provided in this report concerning the profiled NPL sites is drawn from each site's fact sheet. Taken together, these selection criteria resulted in an informed selection of five of the non-federal proposed or final NPL sites in each state that pose the greatest continuing risk to surrounding populations. Detailed descriptions of the sites appear in the state-specific sections of this report, many of which reveal past waste disposal practices and pre-cleanup conditions not dissimilar from that most infamous of Superfund sites, Love Canal.

Demographic Analysis

Locating NPL Sites

Next, to obtain a picture of those populations that the 50 profiled sites potentially affect, coordinates for each site were obtained from EPA's CERCLIS database.[148] Using geographic information systems (GIS) software and boundary files from the 2000 Census, the census tract containing each site was identified.[149]

Census tracts are subdivisions of counties that generally have between 1,500 and 8,000 people, with an optimum size of 4,000 people each.[150] Population density affects the geographic area of census tracts[151] — that is, there will be more (geographically smaller) census tracts in densely populated areas and less (geographically larger) census tracts in sparsely populated areas. Because we chose our 50 sites in part on the basis of the number of people they affect, more are located in relatively small, densely populated census tracts than might otherwise be true of Superfund as a whole. These people also live in closer geographic proximity to the sites than people living in larger, more sparsely populated tracts.

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[147] *See* Probst & Sherman, *supra* note 17, at 7. As RFF further noted, site fact sheets vary in how recently they have been updated, as does the schedule for updating the information among EPA regional offices. *Id*. NPL site fact sheets for specific sites can be obtained by accessing http://www.epa.gov/superfund/sites/npl/npl.htm, then navigating to the state and site of interest and clicking on the site name hyperlink.

[148] Precise latitude and longitude coordinates for NPL sites were obtained from the December 2005 version of EPA's *List 9 – Active CERCLIS Sites*, which contains information concerning active CERCLIS sites, including, for NPL sites, latitude and longitude data. List 9 and other Superfund products may be obtained in CD format without cost by submitting orders online, *at* http://www.epa.gov/superfund/sites/phonefax/products.htm. The ability to provide an accurate demographic analysis was limited by the fact that the coordinates given by EPA yield a single point for a site location. In reality, sites consist of polygons containing, in some cases, hundreds of acres of land.

[149] Cartographic boundary files *available at* http://www.census.gov/geo/www/cob/bdy_files.html.

[150] United States Census Bureau, *Census Tracts: Cartographic Boundary Files and Metadata*, *available at* http://www.census.gov/geo/www/cob/tr_metadata.html (last visited May 3, 2006).

[151] *Id*. (explaining that "[t]he spatial size of census tracts varies widely depending on the density of settlement.").

Census Tract Maps

This phenomenon can be seen by comparing census tract maps within each state. Within each state, all five maps are drawn at the same scale. Accordingly, where one map shows the outlines of many census tracts, while another (drawn at the same scale) shows the outlines of fewer tracts, the former (with many census tracts) is the more heavily populated area.

2000 Census Data

Finally, demographic data from the 2000 Census were obtained for each census tract from the U.S. Census Bureau's American FactFinder, a user-friendly Internet accessible database.[152] Current demographic conditions in the census tracts may differ from the data collected for Census 2000. To address the fact that demographic shifts do occur between decennial censuses, the United States Census Bureau collects and produces demographic data on a yearly basis in its American Community Survey, based on an annual survey of three million households.[153] Although the Census Bureau plans to increase the local coverage of its American Community Survey data over the next several years, currently the only tabulation of data on the tract level are those collected during the last decennial census (Census 2000). Detailed information on the people that live in the census tracts containing the 50 profiled NPL sites is presented in the state-specific sections of this report. Two final pieces of demographic information are included for each of our 50 sites: the percentage of "minority" and "Hispanic" populations. For Census 2000, the Census Bureau asked every individual living in the United States both: 1) whether they classify themselves as "Spanish/ Hispanic/Latino"; and 2) what race they considered themselves to be, because "the federal government considers race and Hispanic origin to be two separate and

[152] United States Census Bureau, American FactFinder, *available at* http://factfinder.census.gov/home/saff/main.html?_lang=en. Data for specific census tracts may be obtained by accessing http://factfinder.census.gov/servlet/AdvGeoSearchByListServlet?_lang=en&_command=getPlacenames and choosing the appropriate year, and geography, then selecting the state, county and tract of interest. The following categories of information are provided for each census tract: Total Population, Median Age, Children 9 and under, Persons 75 and older, Percent Minority, Percent Hispanic, and Median Household Income in 1999. For each tract, Median Household Income was obtained from Table DP-3, *Profile of Selected Economic Characteristics: 2000* (from Summary File 3 (SF-3) Sample Data), while all the other figures were obtained from (and, for percentages or aggregations of age groups, calculated from data provided in) Table DP-1, *Profile of General Demographic Characteristics: 2000* (from Summary File 1 (SF-1) 100-Percent Data).

[153] United States Census Bureau, *American Community Survey*, *available at* http://factfinder.census.gov/jsp/saff/SAFFInfo.jsp?_pageId=sp1_acs&_submenuId= (last visited May 2, 2006).

distinct concepts."[154] The "minority" classification in this report includes all those residents who classified their race as anything other than "one race, white." The "Hispanic" classification in this report includes all those residents who classified themselves as "Spanish/Hispanic/Latino." Because the classifications measure two different attributes, there may be overlap between the two categories. For example, an individual could have classified herself as "American Indian" and "Spanish/Hispanic/Latino." Thus, the classifications are not mutually exclusive but measure two separate and distinct concepts, as defined by Census 2000.[155]

Readers will note that several sites are located in areas that are heavily populated by Americans that identified themselves as a race other than white and/or as Spanish/Hispanic/Latino. Scholars and other commentators have long debated whether Superfund and other hazardous waste programs address problems that disproportionately affect people of color, and those concerns are validated by aspects of this report *on an individual site basis*. However, our sample size and the focus of our analysis are *not* sufficiently refined to support any further speculation as to whether Superfund sites as a whole affect such populations in a discriminatory manner.

[154] United States Census Bureau, *Census 2000 Brief: Overview of Race and Hispanic Origin* 1 (March 2001), *available at* http://www.census.gov/prod/2001pubs/c2kbr01-1.pdf (last visited May 2, 2006).

[155] Census 2000, in turn, adhered to "the federal standards for collecting and presenting data on race and Hispanic origin as established by the Office of Management and Budget (OMB) in October 1997." *Id*. at 2.

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