

Everything you wanted to know about Hudson River pollution: Understanding Superfund

What is Superfund?

Superfund is the Federal government's program to clean up the nation's uncontrolled hazardous waste sites. Under the Superfund program, abandoned, accidentally spilled, or illegally dumped hazardous waste that pose a current or future threat to human health or the environment are cleaned up. To accomplish this mission, the Environmental Protection Agency (EPA) works closely with communities, scientists, researchers, contractors, government agencies, and the parties who may be potentially responsible for the waste. Together with these groups, EPA identifies the hazardous waste sites, tests the conditions of the sites, formulates cleanup plans, and then cleans up the sites.*

Why is the Hudson River a Superfund site?

Between 1946 and 1976, the General Electric (GE) Corporation dumped approximately 1 million pounds of a chemical known as polychlorinated biphenyls (PCBs) into the Hudson River from its two manufacturing plants in Hudson Falls and Fort Edward, New York. In 1976, following the EPA's ban on the manufacture of PCBs, GE stopped use of these toxic chemicals. By then, however, the Hudson River was already contaminated.

In 1984, the Hudson River was officially added to the EPA's National Priorities List of Hazardous Waste Sites. At nearly 200 miles, the Hudson River PCBs site is the nation's longest Superfund site. In 2002, the EPA signed a record of decision to require GE to remove PCB-contaminated sediments from the Upper Hudson River using environmental dredging techniques. The dredging is scheduled to be in 2007.

What is the Superfund Basic Research Program?

Funded by the National Institute of Environmental Health Sciences (NIEHS) and coordinated with the EPA, the Superfund Basic Research Program (SBRP) supports scientific and medical research to understand and find ways to remediate the effects of hazardous waste sites on human health and the environment.

*Source: US EPA Superfund Website

Mount Sinai's Superfund Basic Research Program: Persistent Pollutants in the Hudson River

The goal of the Mount Sinai SBRP is the prevention of disease, developmental dysfunction and environmental damage associated with the chemical contaminants in the Hudson River. These chemicals include PCBs, mercury, pesticides, such as DDT, and various other by-products of industrial processes.

Scientists are working to identify the primary sources of these chemicals and to define their distribution throughout the Hudson River watershed. They are also working to identify and understand the association between these chemicals and human disease.

Current research includes characterizing the chemicals found in the river's sediment, investigating the levels of chemicals in people who fish in local waters, and conducting laboratory experiments on the cellular level to determine how these chemicals contribute to human disease.

Community Action

To find out more about Superfund, visit the following websites:

US EPA Superfund Program

<http://www.epa.gov/superfund>

EPA Hudson River Program

<http://www.epa.gov/hudson>

NIEHS Superfund Basic Research Program

<http://www-apps.niehs.nih.gov/sbrp/index.cfm>

Mount Sinai Superfund Basic Research Program

<http://www.mssm.edu/cpm/superfund>



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Top 10 Superfund Sites in New York State as Ranked by the Pre-Cleanup EPA Hazard Ranking System

<u>Superfund Site</u>	<u>County</u>
1. Pollution Abatement Services	Oswego
2. Old Bethpage Landfill	Nassau
3. GE Moreau	Saratoga
4. Hudson River PCBs	Washington
5. Circuitron Corporation Syosset Landfill	Suffolk Nassau
6. Sinclair Refinery	Allegany
7. Jones Sanitation	Dutchess
8. Love Canal	Niagara
9. Hooker (S Area)	Niagara
10. Rosen Brothers Scrap Yard/Dump	Cortland

What is the EPA's Hazard Ranking System?

The EPA uses the Hazard Ranking System (HRS) to determine which uncontrolled hazardous waste sites are designated as Superfund sites and placed on the National Priorities List (NPL). Using information from the initial assessments and site inspections, the HRS assigns a numeric score to the site based on the potential for hazardous waste to be released into the environment, the characteristics of that waste, and the populations or sensitive environments that may be affected. The score also takes into account potential routes of exposure. The score is intended to represent the relative potential of a site to affect human health or the environment.

It is important to note that the HRS scores are not completely representative of a site's contamination or toxicity to people or the environment because they are based on preliminary assessments. HRS scores also do not determine which sites are chosen for remediation. EPA uses more detailed studies known as remedial investigation/feasibility studies to determine which sites receive priority.

For more information about the Hazard Ranking System, visit http://www.epa.gov/superfund/programs/npl_hrs/hrsint.htm.