

The Onondaga Lake Partnership (OLP) promotes cooperation among federal, state, and local governments, and other involved parties in the management of the environmental issues of Onondaga Lake and the Onondaga Lake watershed in Central New York.

Six Executive Partners comprise the OLP:

- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- New York State Department of Environmental Conservation
- New York State Attorney General's Office
- Onondaga County
- City of Syracuse

The Executive Committee establishes and maintains the mission of the partnership and the lake improvement effort.

The Project Committee serves as the partnership's technical center of expertise on specific projects.

The Resource Committee develops and maintains the funding strategy for projects.

The Outreach Committee works to enhance public knowledge and understanding of the partnership and the status of the lake improvement effort.

You can contact the Onondaga Lake Partnership at:

1-800-833-6390

[www.onlakepartners.org](http://www.onlakepartners.org)

or write:

Onondaga Lake Partnership  
1776 Niagara Street  
Buffalo, New York 14207

This brochure was reviewed by the individual members of the Onondaga Lake Partnership (OLP) and approved for release to the public for purposes of providing general overview information. Approval for release does not signify adoption or approval for purposes of regulatory, enforcement or other legal actions, of the factual, scientific or legal assertions, characterizations or conclusions contained herein.

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A clean lake reflects well on all of us.

# RESTORING ONONDAGA LAKE: HAZARDOUS WASTE REMEDIATION



# CORRECTING A CENTURY OF ABUSE: INDUSTRIAL CLEANUP OF ONONDAGA LAKE

Imagine an Onondaga Lake that is surrounded by thriving resort areas, and fish from the lake are served at restaurants throughout New York State. So it was over a century ago for Onondaga Lake. During the 1900's, much changed to alter this picture and today, the Onondaga Lake Partnership is at the forefront of efforts to improve and revitalize the Lake and its tributaries.

## THE PRESSURES OF URBANIZATION

Located along the northern edge of the City of Syracuse, Onondaga Lake is surrounded by the most urbanized area in Central New York. As Syracuse quickly expanded in the 1800s, industries began to spring up near the lake's shore. For years, industries such as power plants, steel mills, and manufacturers used the lake, its tributaries and upland areas as convenient disposal areas for their waste. The longest lasting and eventually the largest was Solvay Process Company (which became Allied Signal, now Honeywell, Inc.). Unregulated industrial pollution affected the lake's water quality as well as its recreational appeal. In the 1940's the lake was considered unsuitable for swimming due to pollution and in 1970, fishing was banned on the lake due to concern over the levels of contaminants like mercury in the fish.

Although conditions improved with the passage of the strict Federal Water Pollution Control Act of 1972 and the closure of Allied-Signal's lakeside operations in 1986, pollution in the lake still persists.

Today, millions of cubic yards of sediment at the bottom of the lake are contaminated with mercury and other hazardous wastes.

## REPAIRING THE DAMAGE

In 1994, the entire lake bottom and sites around the lake were added to the federal Superfund list. The lake Superfund site includes the lake bottom as well as four smaller subsites owned by Honeywell and three subsites owned by other parties which are located near the southeastern shore of the lake. The Superfund listing



Close-up view of Allied wastebeds along the lake's west shore

means that the lake is among the nation's most polluted natural resources and must undergo a hazardous waste remedial program.

Due to the sheer size of the lake Superfund site and the distinctive pollution problems associated with each of the eight sites, each of the sites will be studied and remediated separately. The ultimate goal of these hazardous waste cleanup projects is to restore Onondaga Lake to its former health and vitality.



Installation of wells to intercept contaminated groundwater along lake shore



PCB contaminated soil is removed from former GM landfill before cap is installed

## MERCURY AND OTHER INDUSTRIAL WASTES

The presence of fish with elevated contaminant levels and contamination in the lake's sediments present risks to all aquatic life in the lake's ecosystem. Mercury is found throughout the lake with elevated concentrations in the Nine Mile Creek delta and in the southwestern portion of the lake. Mercury has been measured in the flesh of lake fish at levels that make them unsafe to eat. Although fishing in the lake has been permitted since 1986, there is a health advisory on the type and amount of fish that should be eaten.

Other contaminants present within the lake's sediments are benzene, toluene, ethylbenzene and xylenes, as well as polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs) and polychlorinated dioxins and furans. These contaminants are primarily found in the southwestern portion of the lake and elevated concentrations of some of these contaminants extend to a depth of at least 25 feet in the lake bottom.

## CLEANING UP

The hazardous waste sites surrounding Onondaga Lake are each at different stages of investigation or clean-up. Based on the results of extensive investigations and public input, the New York State Department of Environmental Conservation (NYSDEC) selects a plan of action to remediate a site. This process may take years to complete and depends on the type and level of contamination and the consequential risk to human health and the environment at each site.

The good news is that in the past ten years, great strides have been made to curtail the flow of hazardous waste contamination to the lake.

## ONONDAGA LAKE SUPERFUND SITES

**1. Honeywell (formerly Allied-Signal) Lake Bottom Sediments:** Discharged approximately 165,000 pounds of mercury and other contaminants to the lake. Evaluation of possible cleanup actions is underway.

**2. Honeywell (formerly Allied-Signal) Semet Residue Ponds:** Disposed 80 million gallons of acidic, tar-like wastes 400 feet from the lake. A cleanup remedy for the tar wastes and groundwater that enters the lake has been selected. However, an evaluation of possible modifications to the proposed remedy is underway.

**3. General Motors, Inland Fisher Guide Plant:** PCBs from former auto parts plant entered Ley Creek, which flows to the lake. Extensive site investigation nearly complete. GM capped an on-site landfill and reduced pollution threats.

**4. General Motors, Ley Creek PCB Dredgings:** PCB-contaminated creek sediment placed along banks of Ley Creek in the 1970s. GM removed the highly PCB-laden soils and stabilized the site.

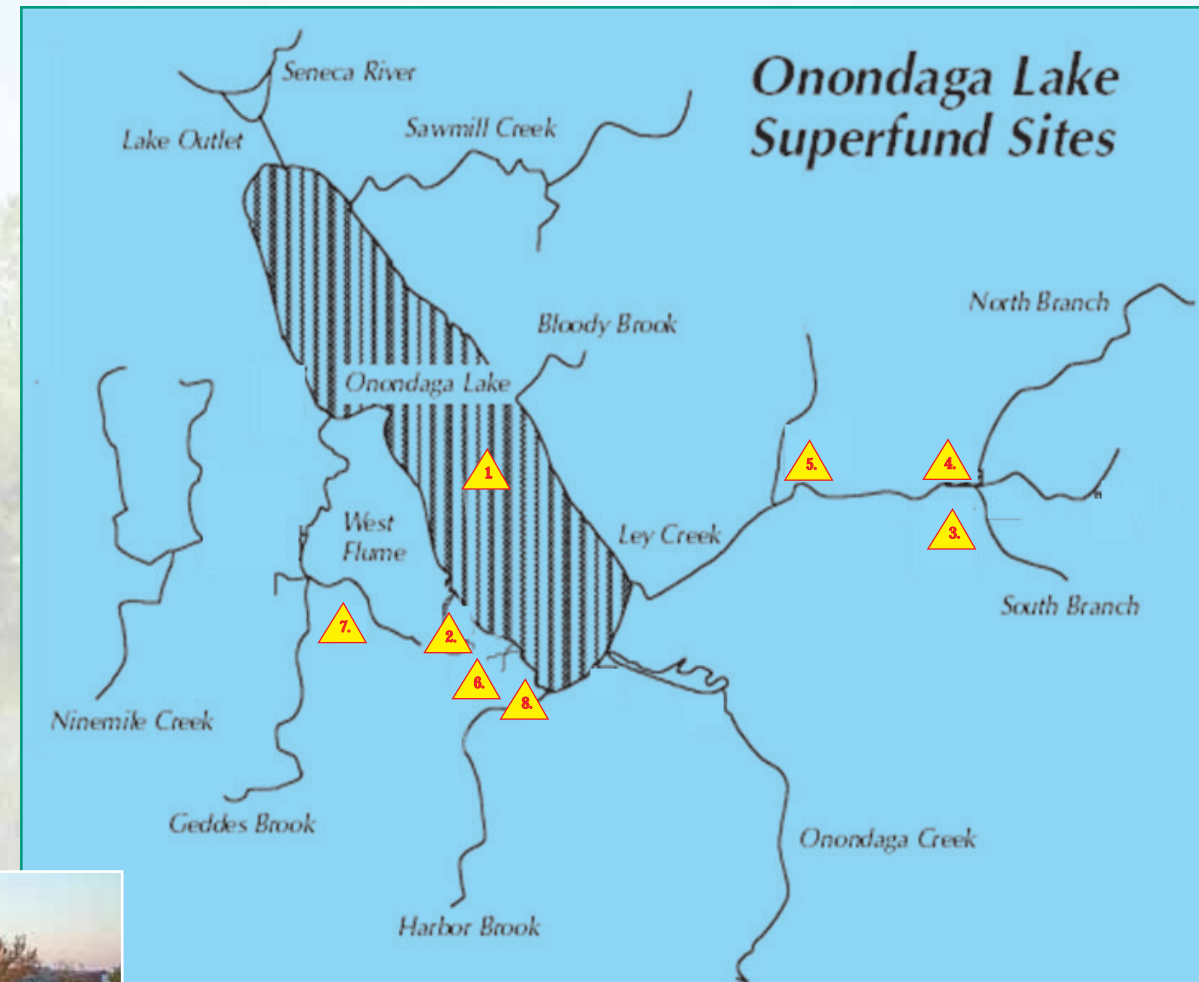
**5. Salina Town Landfill:** This solid waste landfill received PCB contaminated waste until 1975. Pollution enters Ley Creek, which drains to the lake. Investigations are complete. A plan for cleanup is expected in 2005.

**6. Willis Avenue Chlorobenzene Site:** Mercury and chlorinated benzenes from former chemical manufacturing plant have contaminated groundwater which flows into the lake. Results of site investigations are under review.

Measures are being taken by Honeywell to stop the flow of contaminated groundwater to the lake.

**7. LCP Bridge Street Site:** Mercury from former chemical production has contaminated groundwater, soil, sediment and a stream near the lake. A plan for cleanup has been selected and began in 2004.

**8. Honeywell (formerly Allied-Signal) Wastebed B/Harbor Brook:** Various waste materials disposed at the site. Initial investigations complete. Two interim cleanups are being designed to remove contaminated sediments from the East Flume and prevent polluted groundwater from entering the lake and Harbor Brook.



## NEED MORE INFORMATION?

For more information about industrial waste cleanups in and around the lake, contact the NYS Department of Environmental Conservation at (518) 402-9767. Also with assistance from an EPA Technical Assistance Grant, Atlantic States Legal Foundation located at 658 W. Onondaga Street in Syracuse has a complete document repository available to the public by appointment by calling (315) 475-1170. Copies of lake related documents are also available at the Region 7 office of the DEC and the County Public Library at the Galleries in Syracuse.

For general information, consult the Onondaga Lake Partnership website at [www.onlakepartners.org](http://www.onlakepartners.org).

A retention pond constructed by GM captures contaminated stormwater for treatment before it enters Ley Creek. Photo credit: Nathan Knipe

Semet Residue Ponds

