

2. Penn-Can property: The Penn-Can property was historically used for the production and storage of asphalt products. In 1919, the Barrett Division of Semet Solvay Company began a paving-material production facility, which was operated by the Allied Chemical Corporation (later Honeywell) until 1983, when it was sold to the Penn-Can Corporation. Today the site consists of buildings, aboveground storage tanks, and a gravel parking lot, with limited vegetation around the periphery of the area. Based on the initial investigation, the Penn-Can property appears to be an ongoing source of naphthalene-- a contaminated liquid organic waste. This plume is moving under the Wastebed B area and Harbor Brook, and possibly to the lake.

3. Railroad property: The Railroad (RR) property is owned by CSX and is south of the Penn-Can property and CSX mainline tracks. Historical uses of the CSX Railroad Area are not known, although it is believed to have been controlled by the railroad from at least 1900 until the present.

4. Harbor Brook: Harbor Brook is a small tributary to Onondaga Lake that flows through the city of Syracuse and enters Onondaga Lake in its southernmost corner. Before entering Onondaga Lake, Harbor Brook flows adjacent to the CSX Railroad Area, the Penn-Can site, and the Lakeshore Area. Data on Harbor Brook and nearby lake sediments at the mouth of Harbor Brook show extreme levels of contamination.

Environmental Issues

The primary contaminants of concern at the site include benzene, toluene, xylene (BTEX), naphthalene, and mercury. Other contaminants include chlorinated benzenes, dioxins, and furans. A plume of a dense oily liquid has been found in the subsurface soils at depths of up to 85 ft.¹ The oil layer is primarily composed of naphthalene, BTEX, and other coal tar-related constituents. The oil is also present in Harbor Brook sediments and in underlying soils at depths of approximately 7 to 15 feet below the bottom of the brook. Portions of the site have high levels of volatile and semi-volatile organic compounds, PCBs, and metals, including mercury. The site presents a significant environmental threat due to the presence of the oil layer and high levels of contaminants in groundwater and other soils and sediments. The site contributes to the contamination in Onondaga Lake.

Sediments in this section of Harbor Brook are extremely contaminated. There

¹This oil layer is termed “non-aqueous phase liquid” (NAPL). It does not mix with water. Some NAPL is less dense than water, so it floats on the surface of groundwater (gasoline spills are a good example of this). Other NAPL, termed “DNAPL” or Dense Non-Aqueous Phase Liquid, sinks in water. Chlorinated compounds such as chlorinated benzene mixtures form DNAPLs.

is potential for injury to trespassers who come into direct contact with soil and sediment since the site is not fenced. Also, workers at the Penn Cann and CSX properties may be affected. Site contaminants have been found in fish caught in Harbor Brook. The groundwater has been polluted by many contaminants including mercury.

The East Flume, which is also highly contaminated, is being addressed separately. A wetland located near Ley Creek (SYW-12) is also being investigated with the site.

What’s been done to address the problem?

A Preliminary Site Assessment (PSA) has been completed, but the results have not been publicly released. As of this writing, a Remedial Investigation of the site is underway. Two Interim Remedial Measures (IRMs), are being implemented:

1) the East Flume is being investigated separately, and a cleanup plan developed.

2) a **barrier wall** (see Figure 2) is being constructed along the shoreline of Onondaga Lake. Phase III, which is scheduled to be completed in 2011, will extend along the entire length of the Lakeshore Area to Harbor Brook. Contaminated groundwater will be pumped out and treated.

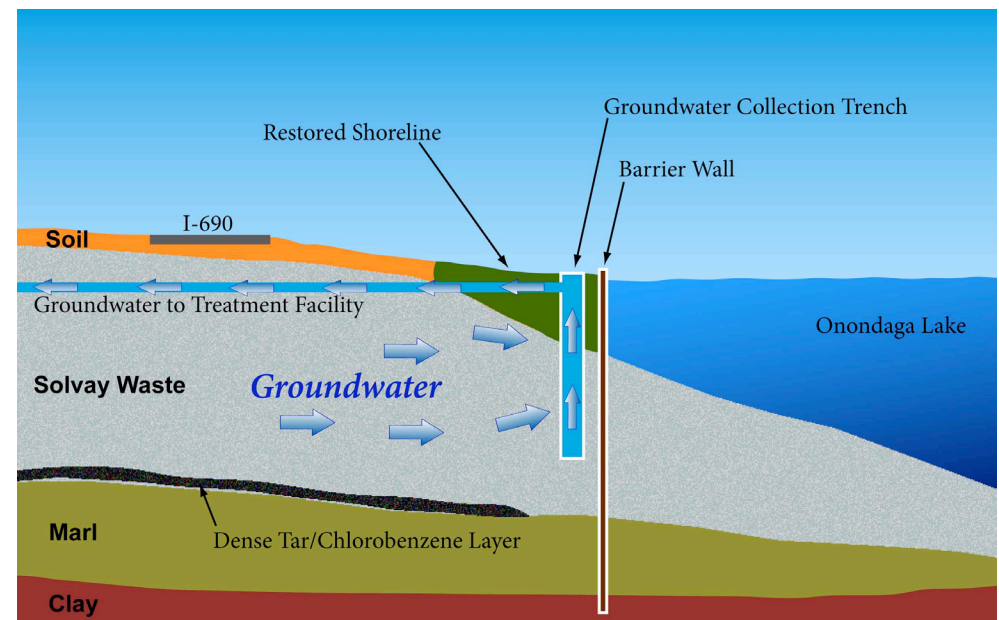


Figure 2: Conceptual diagram showing the Phase III Barrier Wall to be installed along the Lakeshore Area. The wall is designed to block contaminated groundwater and the dense tar or oil layers from reaching Onondaga Lake. Some of the oils found at Wastebed B extend below the depth of the barrier wall.