

Hog Island Cleanup Will Help Lake Superior

St. Louis River Area of Concern
Superior, Wisconsin

November 2005

About the Great Lakes Legacy Act

Although discharges of toxic substances into the Great Lakes have been reduced over the last 20 years, high concentrations of pollution remain in the bottom of some rivers and harbors. That poses a potential risk to people and wildlife.

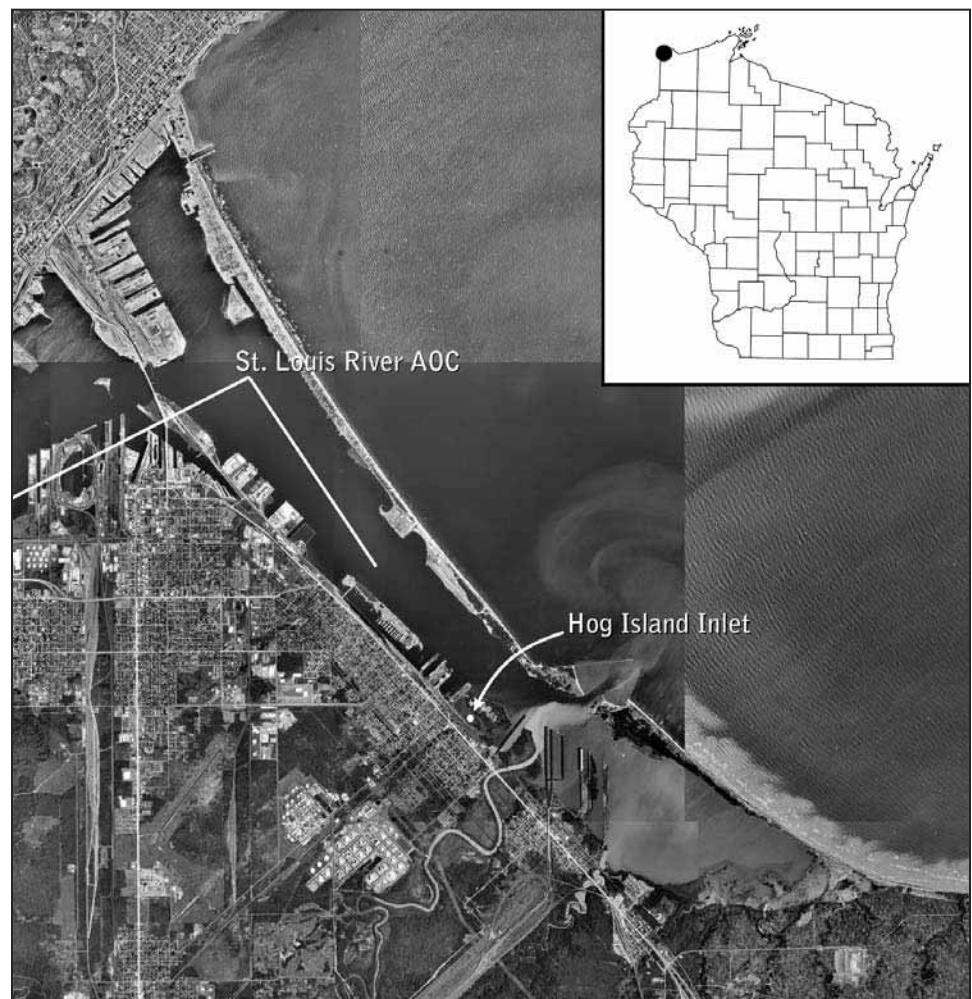
The tributaries and harbors identified as having pollution problems are known as areas of concern, or AOCs. There are 43 AOCs on the Great Lakes—26 on the American side, 12 in Canada and five shared between the two countries.

Congress passed and the President signed the Great Lakes Legacy Act of 2002 to address the problem of contaminated sediment in the American AOCs. The Legacy Act authorizes \$270 million in funding over five years for cleanups. Fiscal year 2004 was the first in which Legacy Act funds were available for projects, and Congress appropriated \$9.9 million. In fiscal year 2005, Congress provided \$22.3 million, and for the current fiscal year Congress appropriated \$30 million for the Legacy Act.

Hog Island Inlet and Newton Creek are part of the St. Louis River AOC. The St. Louis River starts in Minnesota and runs for 179 miles to Lake Superior, but its last 39 miles have the most pollution concerns. At its mouth, the river separates Duluth, Minn., and Superior, Wis. Other Legacy Act cleanup projects are the Black Lagoon near Detroit and Ruddiman Creek in Muskegon, Mich. Several other cleanup projects using Legacy Act funds have been proposed.

Removal of 60,000 tons of contaminated sediment from the mouth of Newton Creek and Hog Island Inlet in Superior, Wis., marked the second completion of a Great Lakes Legacy Act project. U.S. Environmental Protection Agency's Great Lakes National Program Office and Wisconsin Department of Natural Resources coordinated the cleanup of the lower reaches of Newton Creek and the man-made Hog Island Inlet that had been polluted by petroleum products and other contaminants including lead. Final numbers are still being calculated, but the original estimate was that the project would remove 500 pounds of PAHs and 7,000 pounds of lead. (PAHs are polycyclic aromatic hydrocarbons, which made up a portion of the petroleum products in the sediment.)

The inlet and creek are part of the St. Louis River watershed, which is the largest U.S. tributary to drain into Lake Superior. The contamination damaged the habitat for fish and other aquatic life, and local officials had to post no swimming signs around the area.



The \$6.3 million cost of the project was shared by the Great Lakes Legacy Act (\$4.1 million) and Wisconsin DNR and some local sources (\$2.2 million). This was the second sediment removal project started with Legacy Act funds. The first one, the Black Lagoon on the Detroit River in Trenton, Mich., also marked its completion earlier this month.

The inlet and creek cleanup took four months and overcame several heavy rainfalls that flooded the drained work area. The project removed 3,232 truckloads of muck from the inlet and creek mouth and disposed of it in the nearby Moccasin Mike Landfill. The project was done in two stages. The first step was exposing the creek bed by redirecting the normal stream flow through pipes and using sheet pile metal walls to isolate the creek. This allowed for the sediment to be removed under dry conditions. The second stage involved separating Hog Island Inlet from the creek and Lake Superior using sheet piling and barriers made from large rubber tubes filled with water. Water was then pumped from the inlet to expose the polluted sediment. Not all of the mud was removed. Remaining sediment was tested and will be rechecked in the future to ensure the site stays clean. To finish the project, the creek bed was lined with clean rocks, and the creek and inlet banks will be restored with native plants.

During the water pumping phase, when the water level had dropped to about 2 feet, Wisconsin DNR undertook a fish rescue. The shallow water was electrically charged, and fish were netted using boats moving through the inlet. The fish were placed in tanks for transport and released into Lake Superior. More than 1,800 fish were moved, including several large walleye and northern pike.

The project finishes the cleanup of 3-mile-long Newton Creek and Hog Island Inlet. Murphy Oil Co., which owns a refinery in Superior, cleaned up the upper reaches of Newton Creek in the mid-1990s while Wisconsin DNR cleaned the middle stretches in 2003.



After water was pumped out of the inlet, sediment was excavated with traditional construction equipment.



Sheet piling kept water from Superior Harbor from reflooding Hog Island Inlet.



After contaminated sediment was removed from Newton Creek, the banks were stabilized.