



PROGRESS ON THE REMEDIAL ACTION PLAN AND CLEANING UP THE RIVERS IN THE MASSENA AREA

Spring 2009

History

Over 20 years ago, the International Joint Commission, which represent governments from around the Great Lakes, designated a section of the St. Lawrence River as one of 43 areas in the Great Lakes basin with serious pollution problems that impair uses of the river or the river's ability to support aquatic life. Once the rivers around Massena were identified as an Area of Concern, citizens, industry, agency staff and elected officials held monthly meetings and with public input, prepared the Massena Remedial Action Plan, which included specific initiatives that would return the water related resources to the beneficial use the public once enjoyed.

In 1989 and 1990, the Citizens Advisory Committee evaluated the water quality issues around Massena and identified three specific problems and four other issues likely to be a problem, but more information was needed. Other water quality issues were evaluated and found not to be a problem in the Massena area. The following table gives a snapshot of the issues.

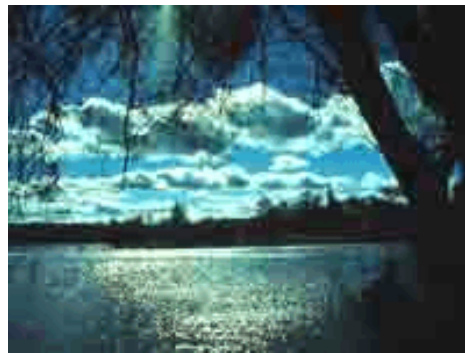
Issue	Problem?	Cause
1.Restriction on eating fish and wildlife	yes	PCBs, Mercury Mirex, Dioxin
2.Loss of fish and wildlife habitat	yes	Physical disturb., contaminated sediment
3.Transboundary impacts	yes	PCBs, phosphorus, metals, sediments
4.Degrading of fish and wildlife populations	likely	PCBs, DDE, Dioxin, Mercury, physical disturb., overharvest
5.Degrading of river bottom life	likely	PCBs, Lead, Copper, physical disturbances
6.Fish tumors and other deformities	likely	PAHs
7.Bird or Animal Deformities or reproductive problems	likely	PCBs

Cleaning Up The Area

Much has been done since 1987 to clean up the identified problems and restore water quality.

Municipalities have upgraded their waste water systems; agriculture has implemented new techniques for resource management. Government regulations have gradually reduced the permitted discharges to water and air; and industries have improved their manufacturing and disposal procedures to meet the new standards. Landfills, lagoons, sludge and other land-based waste sites have been identified, tested, monitored and, in most cases, cleaned up or closed. Contaminated sediments in streams and rivers have been located, and plans for their removal or treatment

were completed, or are currently under consideration. Water and air quality are benefitting. Here is a brief overview of cleanups performed by our local industries.



Alcoa West Land Based Remediation

14 separate locations were identified on the 3500 acre property which included 9 priority sites linked as sources of contamination for the area. All 14 sites have been cleaned up to the standards set in the DEC's Record of Decision.

Alcoa East Land Based Remediation

6 priority sites on the 112 acre aluminum plant facility had been identified to be cleaned up. All of these land based cleanups have been completed, and, as part of the mitigation for loss of 100 acres of wetlands on the Alcoa West facility, wetland habitats were created and enhanced on the non-industrial parts of the East plant.

General Motors Land Based Remediation

Remedial activities will address an industrial landfill area, north and east sludge disposal areas, various soil and limited groundwater contamination, off-site on St. Regis Mohawk Tribe lands, St. Lawrence and Raquette River shoreline locations, and an unnamed tributary area to the St. Lawrence River. Most of these areas have been cleaned up and monitoring continues. Sampling in the east disposal area is planned, to delineate boundaries of areas for future cleanup in this location.

Alcoa Grasse River Remediation

Removal of about 3,000 cu.yd. of PCB contaminated sediments was done in 1995 to get sediments containing the highest levels of PCBs out of the Grasse River. The entire lower 7 miles of river has PCB contaminated sediments and several options are currently being evaluated to determine the best method to address the remaining contamination.

Alcoa East St Lawrence River Remediation

The contaminated sediment removal project began in 2001 and involved dredging about 86,600 cu.yd. of sediments with PCB concentrations greater than 1.0 ppm. Some final dredging and capping is being proposed for areas of this river project where 1 ppm of PCBs and desired cleanup levels of 20 ppm of PAHs were not achieved.

GM St Lawrence River Remediation

Sediments in the St. Lawrence River were dredged by General Motors and its contractors in 1995. Over 80% of the dredged area had final PCB concentrations below 10 ppm with an average of 3 ppm. The remaining area, with concentrations of PCBs in excess of 10 ppm, was secured by constructing an "armoring layer" composed of sand blended with carbon, then gravel, and then heavy stone.

Cove cleanup work conducted in 2004 and 2005, consisted of dewatering the cove and removing 36,700 cu.yd. of soil and sediments with PCB contamination. This cove had its own "eat none" fish consumption advisory, and testing is being conducted to determine if the fish in the cove would now have lower contaminant levels, below or similar to those found in fish in the St. Lawrence River.

The Remedial Advisory Committee's Current Efforts

The committee has been tracking the progress of the cleanup efforts over the past decade. They have been recommending needed studies, collecting data and reports that help track the condition of the local water quality and water related plant, fish and wildlife health.

The next vital task is to evaluate scientifically and from the perspective of the local people if the environmental issues which were identified in 1990 are still a problem. This is a large undertaking and the committee will be hosting public meetings looking for local public feedback and even assistance on the committee. Anyone interested in more information on the Remedial Advisory Committee or the condition of the local environment, please contact the coordinator at the phone or email address below.



Advisories on Eating Fish in the Massena Area

This information is pulled out of NYS Department of Health 2008-2009 Health Advisories: Chemicals in Sportfish and Game.

Massena Power Canal - Smallmouth bass - Eat no more than one meal per month because of PCBs.

Grasse River - Mouth to Massena Power Canal - All fish species - Eat none because of PCBs.

St Lawrence River - the whole river - Carp, channel catfish, lake trout over 25" and brown trout over 20" - Eat none because of PCBs, Mirex, and Dioxin; and Chinook salmon, rainbow trout, white perch, white sucker, smaller lake trout, smaller brown trout and coho salmon over 25" - Eat no more than one meal per month also because of PCBs, Mirex, Dioxin.

St Lawrence River - Bay at St. Lawrence/ Franklin Co. line - All species - Eat none due to PCBs.

Statewide General Fish Consumption Advisory

The general health advisory for sportfish is that you eat no more than one meal (one-half pound) per week of fish taken from the state's freshwaters and some marine waters at the mouth of the Hudson River. DOH offers health advice for infants, children under the age of 15 and women of childbearing age. DOH recommends that these groups not eat any fish from the specific waterbodies listed in their advisory.

For further information available on the web

Descriptions and documents about the St Lawrence River Area of Concern

<http://www.epa.gov/glnpo/aoc/stlawrence.html>

Information about cleanups on Alcoa East and the Grasse River

www.thegrasseriver.com

Department of Health - Chemicals in Sportfish and Game: 2008-2009 Health Advisories

<http://www.health.state.ny.us/environmental/outdoors/fish/fish.htm>

Questions about the Massena Remedial Advisory Committee, Remedial Action Plan and requests to be on the mailing list for updates can be relayed to:

Stephen Litwhiler

NYSDEC, 317 Washington Street

Watertown, NY 13601

Phone: 315-785-2252

swlitwhi@gw.dec.state.ny.us