

The two countries signed the Great Lakes Water Quality Agreement in 1972 and renewed and expanded it in 1978, as the lakes were facing their greatest challenge. Phosphorous from detergents was flowing into sewers and then into the lakes, feeding algae and choking out fish. Erie and Ontario were threatened with the destruction of all fish life. Huron and Michigan were also seriously affected.

Richard Vollenweider, senior scientist at Environment Canada's National Water Research Institute in Burlington, Ontario, built a detailed mathematical model that provided the basis for an \$8billion solution, and he won the \$75,000 Tyler Prize awarded by the University of Southern California.

In the next decade, hundreds of municipal sewage plants were replaced or upgraded in the U.S. and nitrates were removed from detergents in Canada. The phosphorous flow was cut from 19,300 tons a year to less than 3,000.

Trout are now spawning in Lake Ontario and walleyed pike are back in Erie. All but a few of Erie's beaches are open to the public.

Other problems remain. Some 2,800 chemical pollutants as well as asbestos and iron-ore waste and tritium from nuclear plants are still in the lakes.

Last November, Canadian Environment Minister Tom McMillan and U.S. Environmental Protection Agency Administrator Lee Thomas signed a renewal of the Water Quality Agreement, setting specific timetables to control these and other pollutants entering the lakes.

It targets 42 heavily polluted sites around the lakes for specific action and addresses the problem of air toxics; pollution caused by pesticides, leaking dumps and storage tanks; and contamination of sediments.

S.S.C. Photo Centre, Brian Nickle

