

Ministry of the Environment programs and initiatives

Successful teamwork improves Great Lakes water quality

An outstanding team effort involving the Ministry of the Environment (MOE) and thousands of public and private sector organizations, community groups and other concerned individuals has helped make today's Great Lakes cleaner than they've been for decades.

Cleaning up pollution in the Great Lakes ecosystem has been a high priority for Ontario for many years. But reducing or eliminating existing environmental problems in the lakes, let alone reversing the harmful effects of previous pollution, is a massive undertaking — certainly one that requires strong teamwork.

Taking stock of our progress

Over the years, the Ministry of the Environment (MOE) and thousands of public and private sector organizations, community groups and individuals have worked hard to improve environmental quality in the Great Lakes. And there's now a growing body of evidence to show that the teamwork is paying off:

- beaches in Hamilton Harbour, Toronto and other lakeside communities are staying open for longer periods each summer;
- water quality improvements have helped to restore the health and enhance the numbers of important Great Lakes fish species — boosting the recreation and tourism, sports and commercial fishing industries that depend on the lakes.

MOE's role

MOE has been involved in many of the significant environmental improvements that have been achieved over the years. Some initiatives include: funding dozens of local water and sewage system improvements through the Provincial Water Protection Fund; helping to establish the Ontario Great Lakes Renewal Foundation that is improving fish and wildlife habitat; and rehabilitating ecosystems in environmental "hot-spots" such as the Severn Sound, Thunder Bay, Hamilton, the St. Clair River, Bay of Quinte and Toronto through Remedial Action Plans (RAPs).

These and other important success stories show that effective environmental partnerships can put the "great" back into the Great Lakes — and thus ensure that a vital natural resource will continue to be enjoyed for generations to come.

Provincial Water Protection Fund

In Ontario, the \$200-million Provincial Water Protection Fund (PWPF) is helping some 59 municipalities on the Great Lakes basin and elsewhere in the province to address 74 water and sewage treatment problems — bringing benefits both to community residents and Ontario's environment.

Thunder Bay RAP Public Advisory Committee members and technical advisors viewing cleanup site.

Lakeside beaches open for swimming.



In addition to funding construction projects, the PWWF is providing assistance to municipalities to undertake studies to identify the most cost-effective solutions for their water or sewage treatment problems; to reduce and even eliminate costly construction by making the best use of the existing facility; and to protect groundwater resources from overuse and contamination.

www.ene.gov.on.ca/envision/fund/

The Ontario Great Lakes Renewal Foundation

The Ontario government helped establish the Ontario Great Lakes Renewal Foundation in 1998 to lead efforts to revitalize the Great Lakes ecosystem. Using its base of \$5 million in provincial seed money, the foundation has successfully attracted additional funding from the private and non-profit sectors — adding to the resources available for ecosystem renewal.

The foundation provides funds to local projects that rehabilitate shorelines, improve fish and wildlife habitat, clean up contaminated sediment, improve stormwater management, prevent pollution, and promote water conservation and efficiency. It also supports Great Lakes ecosystem research projects and activities that raise public awareness of the importance of the Great Lakes, while highlighting opportunities for individual involvement in renewal projects.

www.greatlakes.on.ca

Lakewide management plans for Superior, Erie and Ontario

The Great Lakes — like other valuable natural resources — need to be managed both wisely and sustainably. And to accomplish that goal, we need partners. The Ministry of the Environment, in collaboration with federal and state agencies, is working to develop lakewide management plans for Lake Superior, Lake Erie and Lake Ontario. The plans identify priorities for protecting and rehabilitating the lakes and for co-ordinating the work of the many participants involved in their cleanup.

www.cciw.ca/glimr/program-LaMPs.html

MOU on pollution prevention

The governments of Canada and Ontario and several private sector companies have signed a Pollution Prevention Memorandum of

Understanding (MOU) that aims to reduce emissions of priority toxic substances into the environment. Specific agreements have been signed with auto parts manufacturers and metal finishers, and have contributed to the reduction of some 390,000 tonnes of toxic substances since 1992.

RAPs bring in large environmental dividends

The Remedial Action Plan (RAP) program is one of the best examples in the world of effective environmental management and protection through the involvement of the public, private, non-profit and voluntary sectors. Over the years, the RAP program has won local and international accolades as a model for broad-based participation — while chalking up dozens of environmental success stories that have not only made major improvements in Great Lakes environmental quality, but have also proved the power of effective partnerships.

Thunder Bay RAP stimulates voluntary harbour cleanup

At one time, the creosote in sediment at the bottom of Thunder Bay Harbour made it one of Ontario's highest-priority areas for environmental cleanup. But for a number of years, as attempts to address the problem dragged through the courts, the harbour remained polluted.

As a direct result of the RAP process, the Thunder Bay Public Advisory Committee adopted a fresh approach. The group brought all those with an interest together — not to assess blame, but to work out an action plan for fixing the problem.

Today, the polluted sediment in Thunder Bay Harbour is being removed under a voluntary, \$10 million agreement between the governments of Canada, Ontario and three private-sector companies located in Thunder Bay: Abitibi Consolidated Inc., Canadian National Railway Company and Northern Wood Preservers.

As the cleanup project advances, RAP stakeholders intend to enhance the local fish habitat, as part of a larger plan to renew and improve Thunder Bay's waterfront.

Reducing phosphorus contamination

During the past 20 years, improvements in sewage treatment and farming practices have cut the amount of phosphorus that enters the Great Lakes by hundreds of tonnes per year. In western Lake Erie and in Lake Ontario, phosphorus levels have dropped by almost 80 per cent — resulting in improved water quality for dozens of communities and healthier habitat for fish and wildlife.



Removing polluted sediment.

Fish (and other swimmers) returning to Hamilton Harbour

Hamilton Harbour was once one of the most polluted parts of Lake Ontario, but more fish are returning to its waters — thanks to cleaner waters, that allowed for a habitat enhancement program carried out under the Hamilton Harbour RAP. In fact, this multi-year project won the 1998 Excellence on the Waterfront Honour Award from the Waterfront Centre, a Washington, D.C.-based non-profit organization.



Measuring the recovery of fish populations.

Over the years, the steel works, other industrial sites, and sewage treatment plants along the shores of the harbour caused significant water pollution. Through collaboration with MOE specialists, treatment has improved. Water quality is responding and helping the habitat enhancement efforts succeed in revitalizing fish communities. The RAP partners are providing sheltered spots for fish to reproduce, grow and feed and promoting improved conditions for waterfowl and shore birds.

The project teaches a number of important lessons: persistence and partnerships pay off, and human efforts to rectify environmental problems can compensate for environmental damage that humans caused in the past.

RAP partners clean up Severn Sound

For years, picturesque Severn Sound, on the southeast side of Georgian Bay, had a serious water quality problem. Excess nutrients in the water — caused mainly by phosphorus discharges from local sewage systems and agricultural operations — posed a threat to the area's fish and wildlife.

Environmental technologies provided two basic options for dealing with the problem of sewage treatment. The traditional option — to expand the sewage treatment process — would have cost tens of millions of dollars or more. The other

option was to make the existing sewage treatment facilities and related infrastructure work more effectively to control the phosphorus problem.

Local municipalities and the governments of Canada and Ontario developed new, cost-effective technology that enabled them to “tweak” the existing facilities — making them much more efficient at capturing phosphorus. At the same time, RAP partners worked closely with local farmers and livestock producers to help them better manage their waste. Today, Severn Sound is returning to good health.

To contribute to Severn Sound's longer-term environmental well-being, the RAP has spawned a unique local group known as the Severn Sound Environmental Association. The organization owes its origins to the RAP partnership between seven local municipalities, Environment Canada and MOE — and the group's broad base allows it to overcome political boundaries. Its goal is to promote and sustain the long-term well being of Severn Sound by incorporating environmental considerations into local land use planning decisions.

Wheatley Harbour now 90 per cent cleaner

The community of Wheatley, on the north shore of Lake Erie, is known primarily as a bustling commercial fishing port, but until recently, the water in Wheatley Harbour did not enjoy such a good reputation.

In the 1970s, the harbour's waters were suffering from the growth and decay of vegetation and deoxygenation. The harbour was also choked with algae and PCBs were found in the sediment. The Ministry of the Environment identified the sources of the excess nutrient loadings that



Progress on pollution in the Niagara River

Thanks to the co-operative efforts of MOE and other partners in the Niagara River Toxics Management Plan, discharges of 18 persistent toxic chemicals from Ontario sources into the Niagara River were cut by 94 per cent since 1986. Over the same period, 10 persistent toxic substances in the river reached undetectable levels.

Enjoying the benefits of cleaner water.

caused many of the problems, and worked with Omstead Foods, a local fish processor, to turn around the conditions in the harbour. Omstead Foods demonstrated its corporate citizenship by voluntarily investing millions of dollars in state of the art waste treatment equipment. The improvement in effluent, (to a point where fish could actually swim in the discharge), has had a remarkable effect, and today, Wheatley Harbour is rapidly returning to health.

Toronto's RAP program prepared for takeoff

Pollution in the Toronto region has been a priority concern for Ontario for some time. The Toronto and Region Remedial Action Plan is one of the most complex anywhere in the Great Lakes Basin. At first there was an enormous challenge of forging effective partnerships between different levels of government and hundreds of industry and community stakeholders — any groups or people who have an interest in a particular environmental issue — making progress difficult.

In the past two years, the local RAP program evolved into a partnership between four organizations — Environment Canada, MOE, the Toronto Region Conservation Authority and the Waterfront Regeneration Trust. RAP-related efforts have come into much sharper focus.

For example, working groups are presently or will soon be co-ordinating RAP-related activities on each major tributary flowing through the city to Lake Ontario — the Humber, Rouge and Don rivers, and the Highland, Etobicoke, and Mimico creeks. Within the inner harbour, the Toronto Bay Initiative is raising the profile of the RAP and demonstrating opportunities for environmental renewal.

The Toronto and Region RAP sponsored a successful, day-long clean water summit which united a broad range of stakeholders on the priority activities for the RAP to address. Awards of excellence to schools, community groups, business, municipalities and agencies highlighted the incremental and innovative efforts of the many partners working to revitalize their local environments.

For more RAP stories, visit www.cciw.ca/glimr/program-RAPs.html

It would be impossible to single out any one action for credit in the overall improvements in Great Lakes water quality. The fact is, the lakes are cleaner today because of hundreds of projects in which collective action succeeded in rehabilitating the lakes or preventing their further degradation. Partnerships will continue to be the key to a healthy Great Lakes ecosystem and to the sustainability of the largest source of surface fresh water in the world.

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Great Lakes progress comes step by step

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Bringing wetlands back to the Don.



Stopping bank robbery...



...and creating habitat in Collingwood.

