



DETROIT RIVER
C A N A D I A N
C L E A N U P

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Annual Review
2010-2011

Restoring our River, together!



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Environment
Canada

Environnement
Canada

Canada



Ontario



University
of Windsor
thinking forward



Honeywell

BRIGHTON BEACH Power →

...and many dedicated citizens!

Restoring our River, together!

The Detroit River Canadian Cleanup (DRCC) is a community-based partnership launched in 1998 to cleanup, enhance, restore and sustain the Detroit River Ecosystem.

Partnerships within the DRCC aim to promote and implement the cleanup plan called a Remedial Action Plan (RAP) to restore the Detroit River's beneficial uses with the ultimate goal of removing the Detroit River from the list of Great Lakes Areas of Concern.

The DRCC's members provide leadership in identifying partnerships and funding opportunities to support and complete cleanup goals for the Detroit River.

This document reports on accomplishments on the Canadian side of the Detroit River between April 1 2010 and March 31 2011.

Message from the Acting Coordinator

As a resident of Windsor for 5 years I was well aware of the many environmental issues, such as pollution and habitat degradation, facing the Detroit River. Now, my appointment as the Acting Remedial Action Plan Coordinator has helped me appreciate the number and diversity of projects and actions that are occurring in Windsor-Essex County to improve the Detroit River Ecosystem.

Between April 2010 and March 2011 over \$2.4 million was spent on projects to improve the Canadian Detroit River Area of Concern. For example, the creation of the Retention Treatment Basin in the City of Windsor continued; data were collected and analysed to assess beneficial uses of the River, including the taste of fish; and terrestrial and aquatic habitat was restored and created. Citizens are also working to restore the river by participating in community cleanup events and tree plantings.

When industry, government, environmental organizations and citizens work together, much can be accomplished.

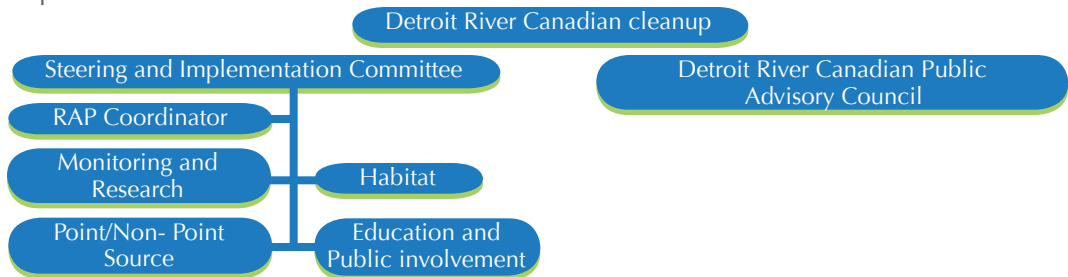
The River is improving, and together we can take action to keep cleaning up, enhancing and restoring the Detroit River.



Sandra Hogan
Acting Remedial Action Plan Coordinator

Detroit River Canadian Cleanup Organizational Framework

On April 14th 2010 the Detroit River Canadian Cleanup (DRCC) adopted a new structure to improve the implementation of the Remedial Action Plan (RAP). The new structure will increase the role of the public and the Public Advisory Council (PAC), increase communication and participation on committees and work groups, and increase industry involvement in the RAP process.



Detroit River Canadian RAP Stage 2 Report

The Detroit River is one of 43 Great Lakes Areas of Concern (AOCs). The Canada-US Great Lakes Water Quality Agreement calls for clean-up plans, known as Remedial Action Plans (RAPs), to be developed for each AOC. RAPs proceed in three stages:

1 The first stage in the RAP process is the identification of the problems and includes an evaluation of 14 beneficial uses within the AOC. The Stage 1 report for the Detroit River AOC was completed in 1991.

2 The second stage in the RAP process is identification of actions to restore the AOC's impaired beneficial uses. The Detroit River Canadian Stage 2 RAP Report was completed in 2010. It provides updates on the status of impaired beneficial uses and remedial actions that have been implemented to date, and recommends and prioritizes further actions to continue to restore impaired beneficial uses in the AOC. For example, the Stage 2 Report recommends actions, such as shoreline softening and naturalization, to help restore degraded habitat, which will help restore the beneficial use related to loss of fish and wildlife habitat. The report is currently being reviewed by the International Joint Commission and expected to be released this summer.

3 The third stage in the RAP process occurs when all remedial actions have been implemented and there are no more impaired beneficial uses of the river. At this point the AOC can be removed from the list of Great Lakes AOCs.

Education & Public Involvement



The Ontario Ministry of the Environment and Environment Canada generously provided over \$30 000 of funding for Education and Outreach Projects in the Detroit River.

Pêche Island Day 2010 and Watershed Brochures

The 4th Annual Pêche Island Day was hosted by the DRCC and its member organizations in September 2010. It was a great success, with over 300 people participating. This event allows residents to explore Pêche Island, an island in the Detroit River which is only accessible by boat. Participants were able to discover the island's unique history and ecology through the Pêche Island Brochure. This publication was part of a new series of brochures developed by the DRCC in 2010 to help visitors and residents explore the Canadian Watersheds of the Detroit River. Three additional brochures produced include: Tour of Little River Watershed, Tour of Turkey Creek Watershed and Tour of Canard River Watershed. These informative and educational brochures are available through the DRCC, the Citizens Environmental Alliance and local Ontario Travel Centers.

Thanks to the organizations that contributed to make Pêche Island Day 2010 a success: Citizens Environment Alliance, City of Windsor, Essex County Field Naturalists' Club, Great Lakes Institute for Environmental Research (University of Windsor), Ontario Ministry of Natural Resources, Windsor Essex County Canoe Club, BASF Inc.

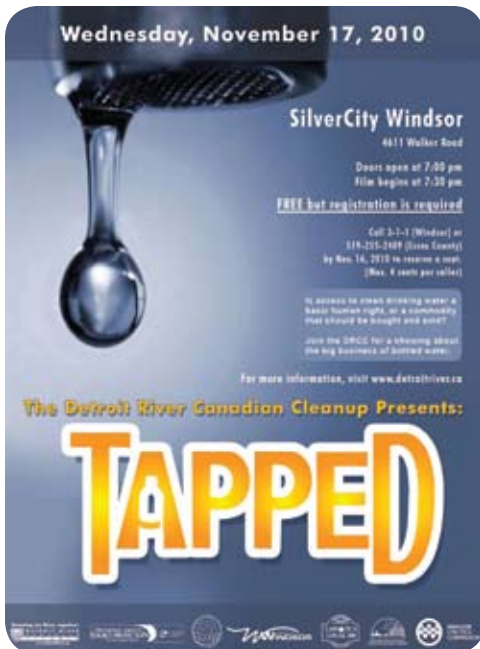


Yellow Fish Road™

In 2010 the City of Windsor became an official partner in Yellow Fish Road™, an environmental educational program designed by Trout Unlimited Canada to increase awareness about urban impacts on the local water supply. On August 28 2010, a local Girl Guide group participated in the Yellow Fish Road™ program, by painting yellow fish near storm drains and handing out yellow fish shaped pamphlets. The message of this program is simple; **storm drains are for water only!**



Tap into It!



Tap water is regulated by provincial legislation which aims to protect our drinking water supply and provide all Ontarians with safe drinking water. It is important to support the treatment and protection of our tap water, and one way to do this is through drinking municipally treated tap water. 2010 saw the launch of a DRCC campaign to promote this important message through the screening of the documentary *Tapped* and the production of stainless steel water bottles and temporary tattoos.

Tapped is a documentary which examines the bottled water industry's impact on our environment and health. Over 150 people came to the exclusive screening of *Tapped* at SilverCity Windsor in November 2010 hosted by the DRCC. Those in attendance received reusable stainless steel water bottles to encourage tap water use.

Bald Eagles and Turkey Creek Interpretive Signs

Interpretive Signs for two Detroit River Canadian Cleanup projects were created in 2010. Four educational signs were created for Destination Eagle, a project partnering Bird Studies Canada, the Essex County Field Naturalists' Club and local governments and landowners, to monitor and study Bald Eagles in the Detroit River watershed. Bald Eagles are an indicator of ecosystem health and their return to the Detroit River watershed indicates that habitat in the area is improving. The signs will be installed near Bald Eagle Habitat in Windsor, LaSalle and *Amherstburg*.

Additionally, a sign was created for the Turkey Creek Native Plant Demonstration Garden, located in LaSalle and planted by Friends of Turkey Creek with funding from the DRCC, Town of LaSalle and the ERCA. This garden features native wildflowers and grasses to exhibit the variety and beauty of native plants. This interpretive sign outlines the benefits of planting a native garden and provides instruction on how citizens can use native plants in their own backyards.



Community Cleanups

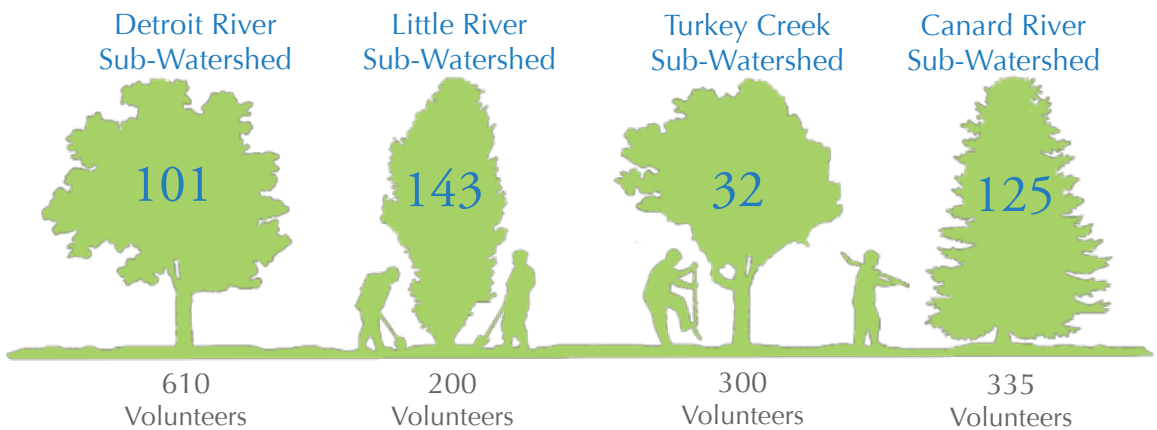
On May 29 2010, 13 hard working volunteers participated in a three-hour cleanup of the Black Oak Heritage Park drain system. This very successful clean up removed 105 tires, two television sets, a couch and loveseat and enough other waste to fill two dumpsters! This event was supported by the DRCC, City of Windsor, Essex Region Conservation Authority and the Windsor Port Authority.

A cleanup of a section of the Little River on September 25, 2010 attracted over 40 enthusiastic volunteers who worked for three hours removing debris. Items removed from the river included 15 shopping carts, two bicycles, a car battery and numerous bags of garbage. This event was supported by the DRCC, City of Windsor, Essex Region Conservation Authority, University of Windsor Environmental Studies Club, Riverside High School, David Suzuki Public School, Essex County Field Naturalists' Club (Little River Enhancement Group), and CAW Local 200 Computers for Kids.



Tree Plantings

With funding from Environment Canada, the DRCC is able to support community and school tree planting events coordinated by ERCA's Friends of the Watersheds Programs and the Little River Enhancement Group Committee. Between April 2010 and March 2011 over 1400 volunteers planted 401 trees and 3540 wildflowers and grasses in the Detroit River watershed (including Little River, Turkey Creek and Canard River). Tree plantings restore lost habitat and increase biodiversity in the Detroit River watersheds while fostering environment stewardship in the community.



Non-Point Source Remediation



Rural Non-Point Source Pollution Remediation Program

ERCA continued to implement the Rural Non-Point Source (NPS) Remediation Program through funding and support from Environment Canada's Great Lakes Sustainability Fund, the University of Windsor, the Royal Bank of Canada and private landowners. The objective of this program is to reduce rural NPS pollution in the Detroit River AOC, primarily focusing on reduction of nutrients, suspended solids and bacteria.

In total, 18 NPS pollution projects were completed including creation of buffer strips, soil erosion control structures, septic system upgrades and fragile land retirement (tree planting) projects. Computer modelling to map areas of the Little River watershed that have high potential to contribute sediment and nutrients to the Detroit River AOC will also be produced through this project. Between March 2010 to April 2011 over \$350 000 was contributed by project partners to reduce loadings to the Detroit River.

Habitat



Windsor Central Riverfront Fish Habitat Restoration Project

Combined funding from Environment Canada's Great Lakes Sustainability Fund, the City of Windsor, Ontario Ministry of Natural Resources and the Ontario Ministry of the Environment was used for shoreline softening of the Windsor Central Riverfront. Total project costs were approximately \$1.5 million. The 550 metre stretch of shoreline that was softened is directly up

stream of the new Retention Treatment Basin (RTB) which is being constructed to help prevent discharges of raw sewage from Combined Sewer Overflows (CSO) to the Detroit River. The existing shoreline adjacent to the RTB included failed wood crib wall, and was replaced by an irregular, undulating shoreline using a variety of rock sizes and shapes to significantly improve fish habitat while at the same time protecting the RTB from erosion. This project increases the total length of shoreline that has been softened on the Canadian side of the Detroit River to almost 3 kilometres, or 6% of the total River's length.

ERCA Biodiversity Conservation Strategy Implementation



ERCA, with funding from its member municipalities, Environment Canada's Great Lakes Sustainability Fund and Habitat Stewardship Program, the Ontario Ministry of Natural Resources, and landowners, continued to implement the Essex Region Biodiversity Conservation Strategy (BCS) in the Detroit River watershed. This programs targets priority sites in the Detroit River AOC for enhancement and restoration.

In total, 58 acres (23 hectares) of primarily privately owned Carolinian forest and wetland habitat were restored in spring 2011 and 35 acres (14 hectares) was restored in spring 2010 through the implementation of the BCS. This project provided technical and financial assistance to landowners aiming to restore natural habitat on their properties. Over \$300 000 worth of funding was contributed by project partners to the implementation of the BCS in the Detroit River watershed.

Essex County Stewardship Network Stewardship Project

The Essex County Stewardship Network (ECSN), through the Detroit River/Canard River Corridor Stewardship Initiative, continued to assist with the de-listing of the Detroit River AOC by improving water quality/quantity and natural habitats along the main tributaries of the Detroit River (Canard River, Turkey Creek and Little River). The ECSN is working with willing landowners and partner agencies to increase natural habitat linkages, enhance fish and wildlife habitats and populations by reducing fragmentation, rehabilitating existing areas and creating new habitats.

The Great Lakes Sustainability Fund support of \$395 000 from 2001 to spring 2011 assisted with grants to landowners who created wetland habitats, planted native trees, shrubs and tall-grass prairie on their properties within the Detroit River AOC. Funds also facilitated workshops on wetland creation and managing private woodlands.

Within this initiative, the ECSN council reviews landowner projects and sources funding, permits and partners to carry out the work. Government and non-government agencies are in place to provide technical advice, but overall decision-making resides with the landowners and ECSN council.

Commitments have been made with 4 new landowners for projects in 2011. Work begun in 2008-09 will be nearing completion on Fighting Island and there are also four other sites that are in planning stages and will be potentially completed as well in 2011-12 pending additional funding from supporting agencies.



Monitoring & Research



Tainting of Fish and Wildlife Flavour Re-Assessment

The DRCC completed a study to re-assess the Beneficial Use Impairment (BUI) Tainting of Fish and Wildlife Flavour (BUI # 2). The study used a questionnaire survey to examine the behaviour and opinions of Detroit River Anglers. From April to October 2010, 156 anglers responded to the survey, which was administered two ways; anglers fishing the Canadian shoreline were interviewed face to face and the questionnaire was mailed out to anglers who participate in the OMNR Angler Diary Program. Anglers were asked about fish consumption habits; specifically which fish they consume and which fish they avoid consuming. The results of the survey resulted in a recommendation that tainting of fish flavour is not impaired on the Canadian side of the Detroit River. This recommendation has been endorsed by the PAC and the Steering and Implementation Committee.



Added Cost to Agriculture and Industry BUI Re-Assessment and Re-designation

In May 2010 the DRCC conducted a survey of Detroit River raw water users to re-assess the status of BUI #12, Added Cost to Agriculture and Industry. In 2006, it was recommended that this BUI be designated impaired, while previous reports (1999, 1996, 1991) had designated it as not impaired. The Stage 2 RAP Report states this BUI can be considered not impaired “when there are no significant additional costs required to use raw Detroit River water for agricultural or industrial purposes”.

Six industrial companies known to use water directly from the Detroit River (raw water) were surveyed; agricultural operations were not surveyed as they do not utilize raw Detroit River

water. Of the six companies selected, one chose not to participate, and one was not a user of raw Detroit River water. The remaining four companies all used raw water for thermal regulation, primarily cooling. Reasons given for using raw Detroit River water were primarily related to cost and convenience. While some operating expenses were associated with raw water use, these are typical of private water intake lines, and overall, industries indicated cost savings in relation to the use of raw Detroit River water. Therefore the status of this BUI was re-designated to *not impaired*.

Fighting Island Lake Sturgeon Monitoring

Habitat loss and over fishing have reduced the Detroit River Lake Sturgeon population to only 1% of its historical abundance. In order to restore habitat required by this species, spawning reefs were constructed near Fighting Island in 2008. In spring 2009, eggs collected from the spawning reef were reared in a lab, and this confirmed that Lake Sturgeon, and other fish species, were using the new habitat for spawning. After rearing these fish in the laboratory for 18 months, 16 Lake Sturgeon were released at an event in October 2010 near Trenton, Michigan. These fish carry monitors which will track their movements and habitat use; researchers will also attempt to re-capture these fish over the next 5 year to monitor their growth and overall health. The data collected from this monitoring project will help scientists and managers understand habitat requirements for these fish, in order to set priorities for habitat protection and restoration for this species.

Partners in the Fighting Island Sturgeon habitat project include BASF Corporation, DTE Energy, DRCC, EC, ERCA, DFO, International Wildlife Refuge Alliance, Landmark Engineers Inc MDNR, Michigan Sea Grant, Michigan Wildlife Conservancy, National Fish and Wildlife Foundation, Ontario Great Lakes Renewal Foundation, OMNR, US Fish and Wildlife Service, USGS, and Wildlife Habitat Council.



Public Advisory Council (PAC)

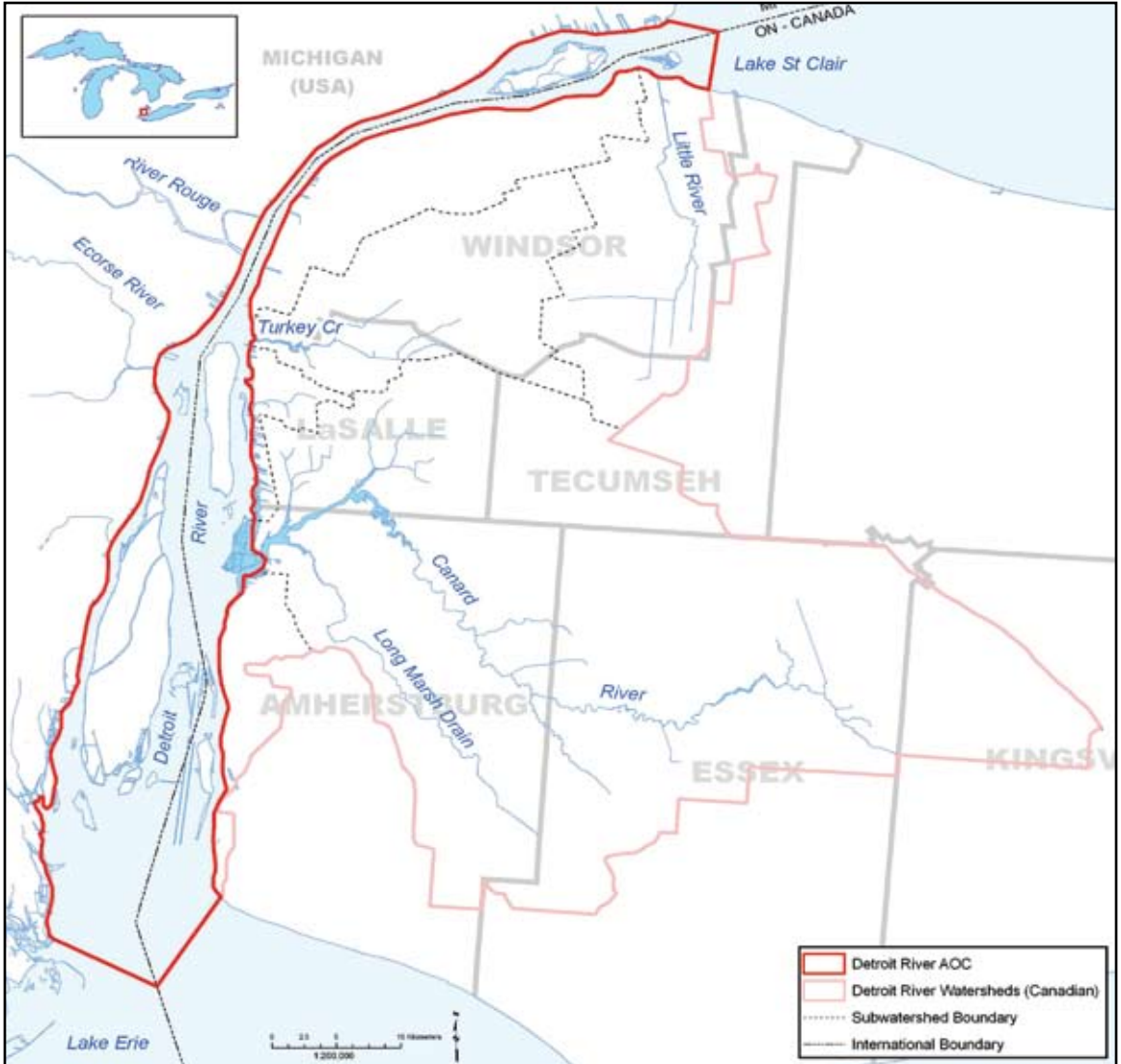
The Detroit River Canadian Public Advisory Council (PAC) is a group of citizen volunteers and representatives from non-government organizations dedicated to improving the health of the Detroit River ecosystem. The PAC stands as an important part of the Detroit River's cleanup process by providing a venue for the public to contribute to the restoration and protection of the Detroit River Area of Concern. The PAC's roles and responsibilities include: promoting community involvement, critically reviewing DRCC reports, lobbying local and senior governments on Detroit River issues, and serving as the public's voice on DRCC committees.

Among other activities in 2010-11, the PAC pursued the following: lobbied for protection and restoration of Ojibway Shores, sixteen hectares of unaltered shoreline on the Canadian side of the Detroit River; met with city officials about changing the zoning of city owned lands between Ojibway Shores and Black Oak Heritage Park from Port/Industrial to Natural Heritage; commented on the Detroit River Remedial Action Plan Stage 2 Report; reviewed and supported efforts by Great Lakes United, Citizens Environment Alliance and other groups on re-negotiation of the Great Lakes Water Quality Agreement; attended meetings and events in Michigan sponsored by among others the Friends of the Detroit River; on October 22, 2010 took part in the Lake Sturgeon Replenishment Day in Trenton, Michigan with dignitaries from both Canada and the United States in attendance.

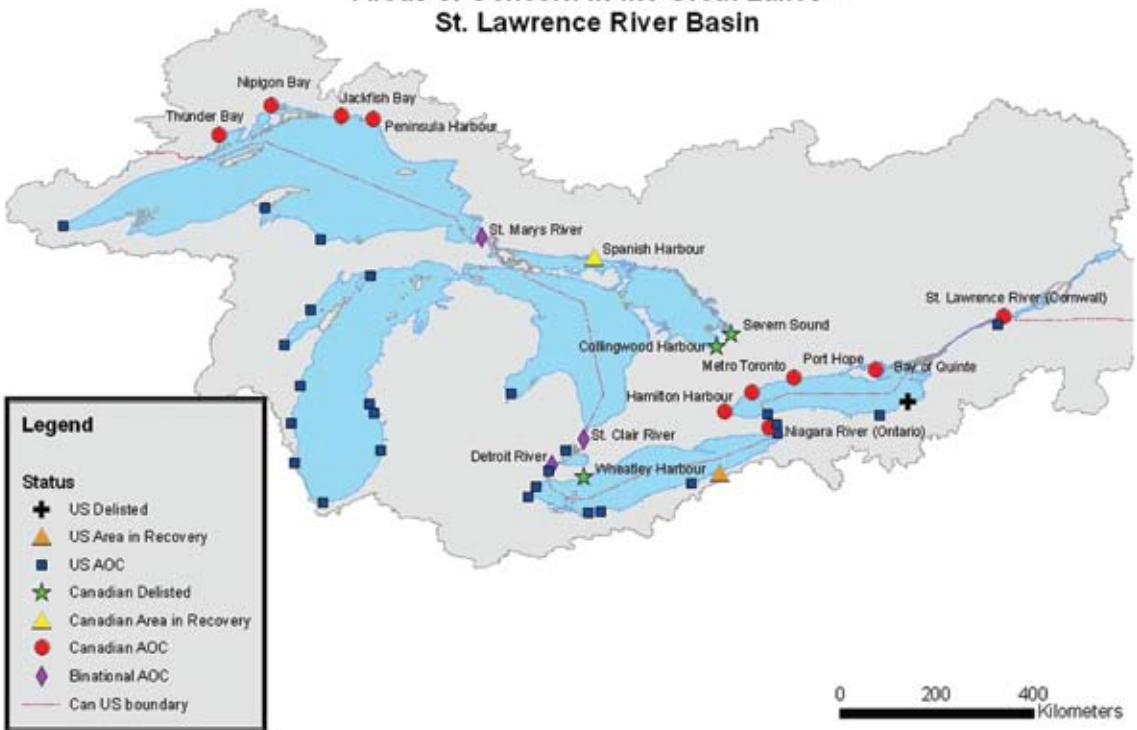


Acronyms

AOC	Area of Concern	ERCA	Essex Region Conservation Authority
BCS	Biodiversity Conservation Strategy	MOE	Ministry of the Environment
BUI	Beneficial Use Impairment	MNR	Ministry of Natural Resources
CSO	Combined Sewer Overflow	NPS	Non-Point Source
DRCC	Detroit River Canadian Cleanup	PAC	Public Advisory Council
EC	Environment Canada	RAP	Remedial Action Plan
ECSN	Essex County Stewardship Network	RTB	Retention Treatment Basin



Areas of Concern in the Great Lakes - St. Lawrence River Basin



An Area of Concern is a location in the Great-Lakes - St. Lawrence River Basin that has been identified as severely polluted or degraded.

Photo credit: Environment Canada

Detroit River Canadian Cleanup

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Funding for the production of this report was provided by Environment Canada
and the Ontario Ministry of the Environment.