

Clean *Clean Waters*



Healthy *Healthy Habitats*

Progress Report 2001



TORONTO & REGION
REMEDIAL ACTION PLAN



Toronto Economic Development Corporation

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Waterfront Regeneration Trust



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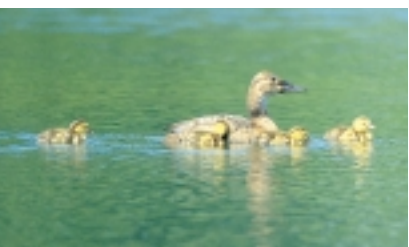
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Clean Waters, Healthy Habitats

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EXECUTIVE SUMMARY



Waterfront Regeneration Trust

Toronto's waterfront and watersheds have been on the "black list" of Areas of Concern around the Great Lakes since 1987. This document reports on the work that has been done since 1987 to restore water quality and healthy habitats. It provides an in-depth assessment of progress, outlines the activities that are underway towards remediation, and establishes clear priorities for removing Toronto from the list of Great Lakes Areas of Concern.

Toronto's waterfront and watersheds are still seriously degraded. Bacterial contamination frequently makes much of the waterfront, as well as the rivers and creeks, unfit for swimming and other water contact recreation. Harmful contaminants affect the health of fish and wildlife, and restrict human consumption of the fish. Habitats for fish and wildlife have been reduced to degraded fragments, both along the waterfront and in the related watersheds. Toxic sediments restrict the disposal of harbour dredgeates to confined disposal sites. Litter and rotting algae make the water's edge unpleasant in many locations.

The causes of these problems are complex. The Toronto waterfront is affected by lake-wide influences, being downstream of the other four Great Lakes and the Niagara River, with many sources of water-borne contaminants as well as deposition from air pollutants. Local sources include the drainage from six watersheds (from Etobicoke Creek in the west to the Rouge River in the east) with 210,000 hectares of agricultural and urban lands. The volumes and pollution loads of stormwater and melting snow from these watersheds create serious impacts in the rivers and streams as well as the waterfront itself.

Overflows of raw sewage mixed with stormwater following heavy rains are a serious problem in the lower portions of the Don and Humber Rivers and directly along the waterfront. Spills, road runoff, and chemical inputs to sewers from industries and homes all contribute to a polluted aquatic environment. Fish, wildlife and their habitats are affected by sediments and contaminants in the rivers and lake. In addition, in the course of several centuries of agriculture and urbanization, wetlands have been filled, forests and riparian vegetation removed, creeks buried or channelized, shorelines hardened, and dams and weirs built in the rivers, obstructing fish migration.

Progress has been made since 1987. Toronto's Remedial Action Plan was published in 1994 and has provided guidance to a range of activities by watershed groups, municipalities, the conservation authority, provincial and federal agencies, and industries. Beach water quality has been significantly improved at the Eastern Beaches, and will be improved at the Western Beaches with the completion of a combined sewer/stormwater detention tunnel in 2002. Twenty hectares of new waterfront habitats have provided for increases in the variety and biomass of fish. New parks and trails provide pleasant greenspace, recreation and interpretive opportunities. Lake-wide pollutants such as DDT have decreased. And there are better controls on spills and industrial inputs to the sewers.

But overall, most of the causes of degradation are still in place and we still have a long way to go to achieve our vision of clean waters and healthy habitats in Toronto's watersheds and waterfront.

This report identifies six key areas of priority action to remove Toronto from the list of Areas of Concern:

1. *wet weather flow management*
2. *pollution prevention*
3. *habitat restoration*
4. *smart growth*
5. *education*
6. *monitoring*



Rosemary G. Hasner, TRCA



Rosemary G. Haener, TRCA

1. Wet Weather Flow Management. Uncontrolled flows of polluted stormwater and combined sewer overflows are the most significant cause of degradation of Toronto's waterfront and watersheds. Implementation of the City of Toronto's emerging Wet Weather Flow Management Master Plan will be essential to restore clean waters in the Toronto Area of Concern. It will identify the most effective combinations of controls that can be applied at the source (e.g. on individual properties), during conveyance of water through the stormwater system, and before discharging into a watercourse or the lake (e.g. ponds, tanks and tunnels). In addition, complementary actions should be taken in the upstream municipalities, by continuing with programs to retrofit stormwater quantity control ponds to also control water quality. Consideration should be given to providing stormwater management for those urban areas, roads and highways that were developed before stormwater controls were mandatory. And vigilance is required to ensure that stormwater management in new developments and redevelopments throughout all the watersheds accomplishes the best results possible.

2. Pollution Prevention. Even in dry weather, pollution gets to rivers, creeks and the lake from a variety of sources. Key actions to address these sources include reducing the use of hazardous chemicals, eliminating cross connections between the sanitary and storm sewer systems, preventing spills, improving and enforcing sewer use by-laws and stormwater policies, and applying best management practices to municipal infrastructure, construction sites, industries and agriculture.

3. Habitat Restoration. Habitat improvements should continue along the waterfront and in the watersheds, with emphasis on rivermouth wetlands; areas where land use changes are occurring such as Port Union, the West Donlands and the Toronto Portlands; removal of barriers in the rivers and creeks; and restoration of shoreline/riparian cover. Protection of existing habitats is also essential, especially in areas of new development.

4. Smart Growth. Although the focus of the RAP is on remedial action to restore degraded environments, we recognize that ongoing population growth, and the new development to support it, could result in losing the gains made in restoration efforts. On the other hand, new development and redevelopment offer opportunities for proactive approaches to environmental protection and management, learning from the mistakes of past practices and applying the best practices available today.

5. Education and Involvement. Increased efforts are essential to educate residents, businesses and industries and encourage more sustainable practices, including better lot-level stormwater management, water conservation, reduction in use and proper disposal of chemicals, and habitat stewardship.

6. Monitoring. In order to delist Toronto and Region as an Area of Concern, we need to be able to clearly demonstrate that the beneficial uses specified in the Great Lakes Water Quality Agreement have been fully restored. This report identifies a focussed list of monitoring and research needs for the RAP, which should be addressed by all the agencies participating in the integrated monitoring program developed by the Toronto and Region Conservation Authority.



Waterfront Regeneration Trust

Removing Toronto from the list of Areas of Concern will not be quick nor easy.

It took some two hundred years to degrade our waterfront and watersheds to today's conditions, and it will likely take decades to restore environmental health. However, progress to date is encouraging and demonstrates that much is possible.

The benefits of a clean, green, healthy environment are clear, and have been widely recognized in recent municipal plans, watershed strategies, and related initiatives such as the efforts to protect the Oak Ridges Moraine and revitalize Toronto's waterfront. A common thread that links all these initiatives together is the recognition that a healthy environment is essential for a strong economy and vibrant communities. The workplan outlined in this report to restore clean waters and healthy habitats represents a major contribution towards the high quality of life that will attract new business investments and meet the needs of residents and tourists alike.