
Chapter three

THE WATERFRONT OF THE FUTURE



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To achieve the vision of the waterfront of the future, concerted action by a wide range of individuals and agencies is necessary. Fostering the necessary commitment to those actions is the goal of the Greenway Strategy. The scope of actions is guided by the nine principles established by the Royal Commission on the Future of the Toronto Waterfront, and broadly endorsed and supported by citizens and governments – that the waterfront of today and tomorrow should be clean, green, accessible, connected, open, useable, diverse, affordable and attractive.

Those principles are embodied in five objectives for the Greenway Strategy. Using an ecosystem approach that recognizes the dynamic nature of the waterfront, the Strategy is intended to:

- ① protect the physical, natural and cultural attributes associated with the Lake Ontario Greenway;
- ② identify restoration needs and methods and encourage landowners, communities and agencies to undertake regeneration activities;
- ③ promote greater awareness, understanding and recreational use of the waterfront and encourage community pride and participation in its regeneration;
- ④ promote economic activities and employment on the waterfront that are compatible with other Greenway objectives; and

- ⑤ foster cooperation in cost-effective public and private initiatives by reducing jurisdictional gridlock, sharing resources, and coordinating waterfront activities.

To achieve each of these objectives, specific actions are underway and planned in various parts of the Greenway.

Within each of the actions described below, a variety of steps already taken by the Waterfront Regeneration Trust, municipalities and other agencies or community groups are described as examples of progress to date. These examples are not intended to be comprehensive, but rather to illustrate what is already being done in various places. Responsibility and mechanisms for steps to come are outlined more fully in Chapter Four, Implementation.

A number of documents that can be used to help accomplish the actions are listed in Appendix D. They include a bibliography of studies and background reports, as well as a toolkit with research results, guidelines, and methods compiled by the Lake Ontario Greenway Strategy workgroups in cooperation with a range of partners.

OBJECTIVE

Protect the physical, natural and cultural attributes associated with the Lake Ontario Greenway

The first priority in regenerating the waterfront must be to protect its current values from further deterioration. While the cumulative effects of a wide range of stresses from past uses of the waterfront and its tributaries have been significant, the waterfront of today still embodies many physical, natural and cultural elements of value. Protecting these elements provides a base for future progress.

Action 1.1:

Protect significant coastal features and habitats

Understanding the physical processes at work along the Lake Ontario shoreline is fundamental to its management. As well as influencing human uses of the waterfront, these processes determine the aquatic habitats present along the shore, and closely relate to the fish communities and other wildlife found there.

Examples of progress to date:

As outlined in Chapter Two, the Shoreline Management Workgroup has developed a descriptive model of the physical processes affecting the shoreline, described the role of various shoreline types as fisheries habitat and outlined management approaches for nine defined shoreline units.

Through the Remedial Action Plan programs underway in Hamilton, Toronto, Port Hope, and the Bay of Quinte, a more detailed assessment of aquatic habitat has been undertaken, together with an analysis of the relationship between impaired water and sediment quality and fish and wildlife health. Within the RAP areas, key habitat areas for protection and/or rehabilitation have also been identified.

Development of an Integrated Shoreline Management Plan is underway for the waterfront area from Tommy Thompson Park to Frenchman's Bay, with the involvement of MTRCA, municipalities, local residents, and the Waterfront Regeneration Trust. Terms of reference developed for this process can serve as a model for other shoreline units.

Protect



To achieve this objective, a number of actions are planned or underway:

- 1.1 Protect significant coastal features and habitats.
- 1.2 Protect waterfront natural core areas.
- 1.3 Protect bioregional habitat corridors and connections.
- 1.4 Protect water quality from further deterioration.
- 1.5 Protect places of archaeological, historic or cultural significance.

Integrated Shoreline Management Plans should:

- encompass at a minimum the inland regulatory shoreline as defined by MNR and offshore waters to a depth of 10 metres, as well as any significant shoreline ecological features extending beyond these areas;
- map in detail the coastal processes acting within the unit;
- identify source areas of littoral transport to sustain dynamic beaches and wetlands with barrier beaches;
- identify key fish habitats and needs for cold and warmwater fish communities, and direct fish habitat mitigation and enhancement measures to the most appropriate locations;
- identify the cumulative effects of past shoreline changes, and discuss the capacity of the shoreline to absorb further change;
- determine the acceptability and design parameters of significant proposed shoreline/onshore alterations, such as lakefill or major shoreline protection works;
- assess the most cost-effective techniques for flood and erosion control where necessary, (including such non-structural techniques as setbacks and clustered development);
- incorporate other shoreline objectives such as public access, protection and enhancement of natural habitats and corridors, and establishing public open space or parkland;
- investigate ways to coordinate the renewal or installation where necessary of shore protection works on individual lots, so that joint projects can achieve cost-effectiveness and ecological benefits;
- incorporate any other specific objectives identified for individual shoreline units, as outlined in the companion document *Lake Ontario Greenway Strategy: Next Steps*;
- establish monitoring programs to assess future changes.

Sample terms of reference for ISMPs are included in the toolkit.



Bo1

Steps to come:

- Integrated Shoreline Management Plans (ISMPs) should be developed for shoreline units (see Map 3) to apply the coastal processes model at a local scale, to integrate the plans and actions of various agencies along the waterfront, and to improve future shoreline management practices to provide ecological and recreational benefits, as well as long term cost effectiveness. In the case of very large shoreline units, ISMPs could be developed for several sub-sections, based on differences in shoreline character or littoral drift. ISMPs should be completed in advance of consideration of major shoreline changes such as new harbours, lakefills, or extensive shore protection.
- As part of future shoreline or fishery management planning along the Greenway, the existing and potential habitat values of open wave-washed coast for coldwater pelagic fish should be protected, especially in areas with convex bedrock or cohesive cobble boulder substrates. Shoreline structures or mitigation projects in these areas should be designed to maintain or enhance coldwater habitat values.
- Existing warmwater fish habitat along the shoreline should be protected and enhanced, with enhancement efforts aimed at areas which have the greatest potential for linkages with other warmwater habitats.
- Aquatic nearshore habitats such as shallow waters and wetlands should be recognized as vital connecting links for movement of many fish and wildlife species including birds, amphibians, reptiles and mammals. Both the alongshore habitat connection and the ability for fish to move between deep and shallow water, including access to stream corridors, should be protected from disruption.
- Significant coastal features, such as large dynamic sand beach and dune systems and bluffs, and representative examples of natural shoreline types such as shale bedrock should be protected as natural core areas. Any works or land use changes along the shoreline should respect shoreline processes.
- Standardized data collection protocols should be established among various agencies with a management role along the waterfront, so that future data are comparable, and so that priority data needs, especially regarding coldwater fish use of the waterfront, are met (see Action 5.4).

Related implementation mechanisms in Chapter 4
A.1, A.2, A.5, A.6

ACTION 1.1

SOURCES OF

ADDITIONAL

INFORMATION:

Waterfront Regeneration Trust
Ecosystem Approach to Shoreline Treatment
(EAST) Workshop Proceedings
Shoreline Management Workgroup Report
Demonstration Terms of Reference for an
Integrated Shoreline Management Plan
Guide to Shoreline Approvals for Landowners
Checklist for Shoreline Treatment

Ontario. Ministry of Natural Resources. 1994.
Fisheries Guidelines for Developing Areas

Ontario. Ministry of Municipal Affairs. 1994.
Comprehensive Set of Policy Statements



Landspan Collaborative

Oshawa Second Marsh and
McLaughlin Bay Wildlife Reserve

Action 1.2:

Protect waterfront natural core areas

As outlined in Chapter Two, natural core areas include the most valuable terrestrial ecological sites along the waterfront and are vital to the protection of flora and fauna populations. While the knowledge base on natural habitats along the waterfront is less than perfect, most of the significant habitats from a waterfront-wide regional perspective can be identified for protection.

Examples of progress to date:

- Of the 90 natural core areas identified along the waterfront (see Map 10 and Appendix A), 47 are totally or largely in public ownership; 42 have been classified as provincially significant wetlands or ANSIs; and 64 are included in some form of protective designation within local Official Plans. Most regional Official Plans also include some form of protective recognition for natural core areas. Halton Region has had an Ecological and Environmental Advisory Committee to advise Council on natural area protection since 1976.
- Landowner contact programs to encourage private landowners to protect significant habitats in parts of the Greenway have been initiated by Halton Region, the Lower Trent Region Conservation Authority and the Hamilton Harbour RAP.

- The dedication of locally-based interest groups has been of great benefit in the protection of many waterfront natural core areas, including Rattray Marsh, Second Marsh, Tommy Thompson Park, the Rouge Valley, Lynde Creek, and Thicksons Woods.
- The Great Lakes Wetlands Conservation Action Plan is a cooperative effort among government and non-government interests to conserve and restore wetlands of the Great Lakes. Under this plan, a list of priority sites for securement is being developed along with specific strategies to protect these sites.

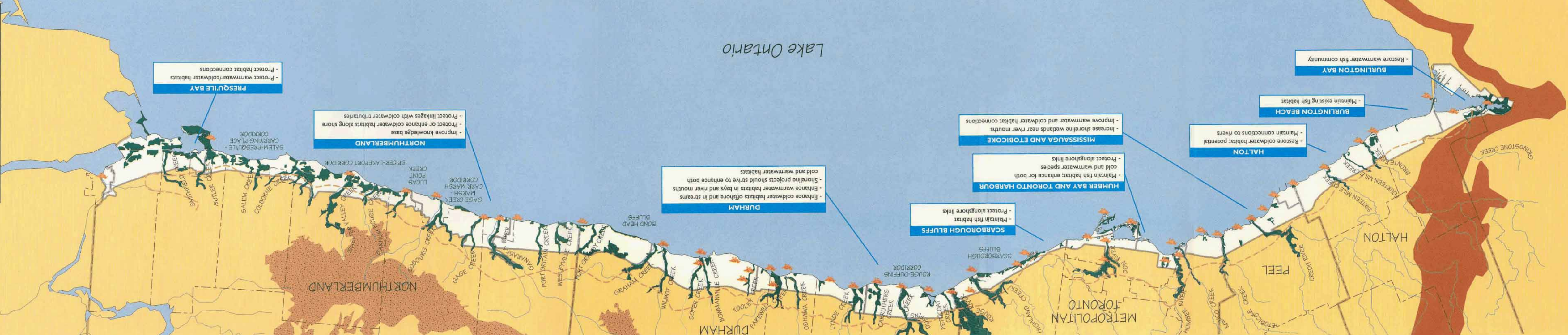
Steps to come:

- Additional natural core areas or other natural areas of local value may be identified by waterfront municipalities or conservation authorities on the basis of improved information. The significance of additional areas should be evaluated using clear selection criteria, such as those outlined in *A Natural Heritage Strategy for the Lake Ontario Greenway* (in the toolkit). While these criteria were established at an earlier date and are oriented specifically to a waterfront setting, they correspond closely to the definitions of significance in the *Comprehensive Set of Policy Statements*.

**MAP 10
NATURAL HERITAGE SYSTEM
AND AQUATIC OBJECTIVES**

Legend:

- Natural Core Areas and Corridors
- Oak Ridges Moraine
- Niagara Escarpment
- Municipal Boundary
- Regional/County Boundary
- Aquatic Objectives
- Lake Inlets/Shoreline
- Within the Greenway



ROUGE PARK: PRESERVING A RICH HERITAGE



The Rouge Valley is an exceptional part of the Bioregion – a major valley on the edge of Metro Toronto that remains

mostly forested, with many associated natural and cultural features. It provides the healthiest remaining forest habitats within Metro Toronto, including areas of interior forest that support Scarlet Tanager, Wood Thrush, and other birds of the deep woods. It has an excellent lakeshore marsh, and a beach strand habitat with

coastal species that are rare elsewhere in the Greenway. The lower Rouge hosts more than 750 plant species, 123 types of breeding birds, and 55 kinds of fish.

Some of the bluffs along the river expose glacial deposits from before the last ice age.

The Rouge area is rich in other forms of history as well, with the only known archaeological site from the Seneca nation, one of the Iroquoian peoples of the late 17th century. The pattern of farmlands, building architecture, and mill sites reflects the heritage of the Mennonite and British families that settled around the valley two hundred years ago.

Responding to strong concerns about

threats to this rich heritage, the Province announced in 1994 that the Rouge would become the largest park within an urban area in North America, eventually including more than 4800 hectares. The federal and provincial government each contributed \$10 million for acquisitions, capital projects and regeneration

activities. Lands owned by the Metro Toronto and Region Conservation Authority (MTRCA), the Province, and other public agencies,

within and around the lower valley south of Steeles Avenue, become part of the Rouge Park

approved management plan. Corridors of valley land extending north to the headwaters of the Rouge in the Oak Ridges Moraine will be added to the park in future by public acquisition or through agreements with private landowners.

will be a sanctuary for nature and the human spirit.”

Park management will be coordinated by a Rouge Watershed and Park Council, with representatives from the provincial government, MTRCA, all the watershed municipalities, Save the Rouge Valley System Inc. (SRVS), and other citizen groups. Cooperative management activities will emphasize restoration of large blocks of forest and protection of heritage features, with a vital role for volunteers. These approaches to management are designed to achieve the vision for the Rouge Park:

“The Rouge Park will be a special place of outstanding natural features and diverse cultural heritage in an urban-rural setting, protected and flourishing as an ecosystem in perpetuity. Human activities will exist in harmony with the natural values of the park. The park will be a sanctuary for nature and the human spirit.”