



BRIDGING THE PAST AND PRESENT

Where the Waterfront Trail meets the Humber River there is a bridge that is a remarkable achievement and an impressive structure. It is much more than a 6.5 metre-wide path between the cities of Etobicoke and Toronto. By generating awareness of the Humber's heritage, the bridge is a link with history. As an example of cooperation between jurisdictions and disciplines it reflects hope for the future.

In 1990, Metro Toronto decided to rebuild the road bridges near the mouth of the Humber. By doing so it created an opportunity to make a safe and pleasant connection between the trails and green spaces that extend up the Humber and along the Etobicoke and Toronto waterfronts. A coalition of public agencies and private groups came together and shared their visions of a bicycle-pedestrian gateway between the cities and between the lake and the river. Funding for the \$4 million project came from Metro, the Province, and the two cities. Just as important to the planning and design process was the advice

and input of many interested people and organizations. Involved were several municipal departments, the Metro Toronto and Region Conservation Authority, and various citizen groups, including Citizens for a Lakeshore Greenway, Swansea Ratepayers Association, and the residents associations of Palace Pier and Palace Place.

As the southern terminus of the Toronto Carrying Place – a fur trade route that connected Lake Ontario to Georgian Bay – the mouth of the Humber was once the commercial centre of the North Shore. Because of the river's geographic, cultural, and natural significance, a competition was held to determine who would design and engineer the 139 metres-long bicycle-pedestrian bridge. For the first time, Metro engaged architects, landscape architects, and artists to work on an equal basis with bridge engineers. The goal was to depict the area's rich heritage by using aboriginal motifs and native plants in the design of the bridge and adjacent parks.

The new gateway across the Humber River, including all the road bridges, will not be completed until 2002. But in Spring 1995 the bicycle-pedestrian bridge will open, and the Waterfront Trail will cross an historic intersection. For aboriginals and European settlers the mouth of the Humber was a place to meet and find refuge. For bureaucrats and designers it was also a chance to meet and share a vision. Those who approach or cross the bridge today may have a chance to pause and reflect on the past and imagine the negotiations that took place hundreds of years ago between fur traders. They may also spare a moment to consider the negotiations and cooperation required today to create such an exciting new waterfront experience. Teamwork, cooperation, creativity, and skill have combined to produce a bridge that is an artistic, architectural, and engineering achievement.



Humber River Bicycle-Pedestrian Bridge

- Future allocations of government funds to Greenway projects should continue to require some form of local matching, with the ratio of matching required linked to the size of the community, its fiscal capacity, and the priority of the project. Contributions by businesses and community groups, including donated services, materials, and volunteer labour, should be encouraged as part of local matching.

The Waterfront Regeneration Trust is exploring ways to broaden the base of support for the Lake Ontario Greenway, in particular with the private sector. An example of such an initiative is a sponsorship program that would provide benefits to the sponsors relating to the publishing program, recognition opportunities, association with waterfront programming and use of the waterfront logo.

- The Waterfront Regeneration Trust is investigating the establishment of an endowment fund to be dedicated to the regeneration of the waterfront. Such a fund would provide opportunities for individuals, service groups, community organizations, corporations, and governments to participate in a variety of capital projects in the Lake Ontario Greenway.

- Funding for shoreline hazard management plans and waterfront access plans should be directed towards the development of Integrated Shoreline Management Plans, and should be augmented to provide for inclusion of terrestrial and aquatic habitat components.
- Some form of financial incentive, perhaps in the form of planning grants, should be made available to encourage waterfront landowners to work together to create grouped shoreline treatment projects for the renewal of protective works on small properties. Such an approach provides opportunities to incorporate habitat enhancement or public access measures, as well as increasing the long-term cost-effectiveness of shoreline protection.

Related implementation mechanisms in Chapter 4 A.6, C.1, C.2, C.3

Action 5.3

Assist in resolving jurisdictional or policy conflicts

In the waterfront area with its multiple agencies involved, conflicts over jurisdiction or policy are not infrequent. Since the agencies involved are often hampered by a relatively narrow mandate or lack of resources, a mechanism to bring parties together to resolve disputes is often useful.

Examples of progress to date:

- The Waterfront Regeneration Trust has often been asked by the Province or by municipalities and other agencies to act as a facilitator or mediator on difficult, multi-jurisdictional issues along the waterfront. Over the past three years, this has included such areas as:
 - public consultation and recommendations to the Province regarding a proposed roadway within the Red Hill Creek valley in Hamilton, in the context of broader issues of regional environment and economy;
 - development of a management structure and funding framework for the new Rouge Park;
 - public discussion sessions and exploration of options regarding the protection of a provincially significant wetland contained within an area licensed for extraction by St. Marys Cement in Clarington;



ACTION 5.3
SOURCES OF
ADDITIONAL
INFORMATION:

Waterfront Regeneration Trust. 1994.
*Report to Premier Rae Vision 2020:
The Provincial Response*

Waterfront Regeneration Trust. 1995.
*Rouge Park Management Structure and
Funding Report*

Symmes, R. 1995.
Westside Creek Marsh - Proposal: Fact Sheet

- Eight conservation authorities with watersheds draining into Lake Ontario have formed the Lake Ontario Conservation Authority Alliance, with a common goal of promoting and implementing the ecosystem approach for the regeneration of Lake Ontario and its shoreline. This Alliance will help to coordinate activities and policies along the shore, identify priorities and program opportunities, and provide a forum to act with one voice on lake wide issues and common concerns.
- The Province has established the Office of the Provincial Facilitator to assist in clearing the backlog of issues related to municipal Official Plan approvals, and to act as a mediator on land use issues where necessary.

Steps to come:

- Working with the Lake Ontario Greenway Strategy Steering Committee, the Trust will continue to play a role as mediator/facilitator to advance the implementation of Greenway objectives where requested by the Province or other parties involved.



Dr. J.D. Murray

Beach and bluffs, west of Port Darlington

- Municipalities and provincial agencies should be encouraged to develop experience and skills in the round-table approach to resolving complex issues, as an alternative where possible to an adversarial hearings process.

Related implementation mechanisms in Chapter 4:
A.4, A.6

Action 5.4:

Standardize and link research and information networks

In the process of developing the Greenway Strategy, a number of areas were discovered where the information base is inconsistent or incomplete. As well, topics where further research would be helpful in managing the shoreline were identified.

Examples of progress to date:

- A considerable range and amount of new information and analysis on Greenway landscapes, resources, and communities has been included in the toolkit and in background reports.
- As part of the Greenway Strategy development, a large amount of relevant information has been digitized in Geographic Information System (GIS) format.
- Metro Toronto has recently completed a *State of the Environment Report* which documents environmental conditions, human pressures that affect the environment, and the actions in place to address these issues.

- A system developed by the National Water Research Institute called RAISON is being used to integrate environmental information for analysis and visualization of data, and to support decision making through the expert system knowledge base integrated with models, statistics and artificial intelligence networks.

Steps to come:

- The Lake Ontario Conservation Authorities Alliance has proposed the development of a common data set on shoreline hazards, coastal processes, environmental features, and recreation and access areas as a pilot project to assist future shoreline management. A list of proposed data layers is included in the toolkit.
- To increase cost-effectiveness of monitoring, joint programs which monitor several factors (e.g. coastal processes and fish habitat) at the same time should be encouraged.
- Information on waterfront flora and fauna and natural communities will be made available to the Natural Heritage Information System operated by the Ministry of Natural Resources to assist in future monitoring and data management programs.

ACTION 5.4

SOURCES OF

ADDITIONAL

INFORMATION:

Waterfront Regeneration Trust:
*Shoreline Management - Proposed Components of
 a Standardized Database*

Ontario. Ministry of Culture, Tourism and
 Recreation, and Ontario. Ministry of Municipal
 Affairs. Waterfront Regeneration Trust. 1995.
Cultural Heritage Conservation: Manual (Draft)

Metropolitan Toronto (Ont. : Regional
 municipality). Planning Dept. 1995.

State of the Environment Report:
 Metropolitan Toronto

➤ Priority should be given by the Trust and other agencies to information management projects which will develop uniform data standards and coordinate data collection related to the following topics:

- monitoring of economic activity related to tourism programs and the Waterfront Trail, especially factors that improve the understanding of symbiotic economic relationships between the Greenway and adjacent communities;
- an analysis of bioregional habitat supply, including improved basic information on the extent, quality, and composition of forest cover;
- field-derived data on the nature and extent of species movement associated with habitat corridors, and on the practicality and effectiveness of habitat restoration techniques;
- field collection of additional data on significant habitats, both terrestrial and aquatic, with particular emphasis on the role of the shoreline in sustaining coldwater fish populations in the eastern sections of the Greenway;

- a standardized implementation approach to collection of information, evaluation, and interpretation of historic sites, structures and landscapes;
- patterns of use on the Waterfront Trail, user expectations, and management needs.



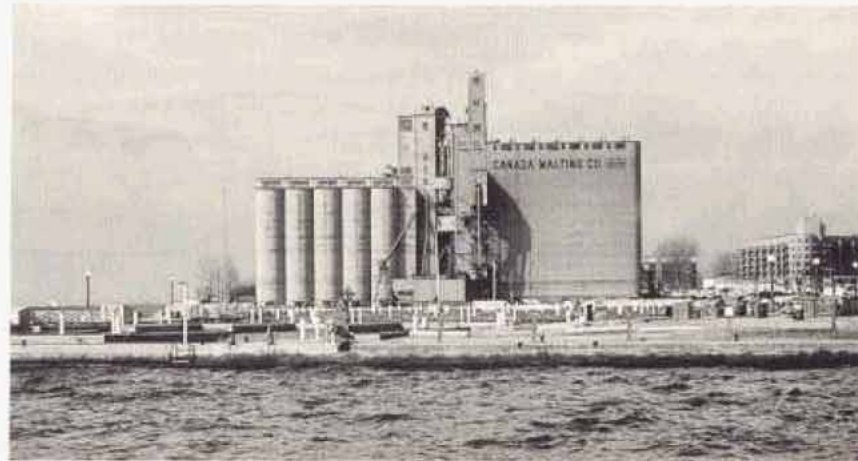
Sport fishing in Lake Ontario

Metro Toronto and Region Conservation Authority

➤ Future monitoring programs along the waterfront should draw upon:

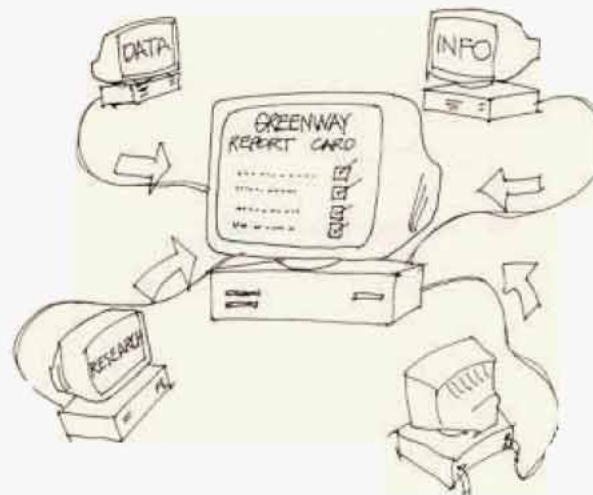
- working groups of agency staff, consultants and academics to advise on uniform data collection standards;
- knowledge of monitoring programs already in place by other agencies (e.g. for water quality, trail counts) which could provide useful information;
- the potential involvement of the volunteer community in such monitoring programs as breeding bird surveys;
- tracking of the general field of state-of-the-environment reporting to keep abreast of current developments.

➤ New information technologies such as Internet should be used to assist in exchange of data and information on monitoring methods, and to make monitoring results available to schools, libraries, and other interested agencies.



Canada Malting Complex

Jeffrey Stinson



Related implementation mechanisms in Chapter 4:
A.4, A.6

Action 5.5:

Evaluate the cumulative effects of waterfront changes

One of the major concerns in stewardship of a large resource like the Lake Ontario waterfront is the lack of understanding of the cumulative effects of a wide range of activities on the waterfront, in the Great Lakes system, and in the tributary watersheds. Simply put, cumulative effects are the combined results of all the human activities in an area over time, as well as the incremental effects of new projects. They may be considered beneficial to the ecosystem (such as the combined effects of a series of habitat restoration projects) or harmful (such as the combined effects of uncoordinated shoreline treatments and their interactions with storm sewer outfalls).

Assessing the probable cumulative effects of proposed projects on the waterfront cannot be accomplished by considering individual projects in isolation. Rather, this assessment requires an integrated approach that takes into account all the existing and proposed activities and interactions in the surrounding area.

Examples of progress to date:

- The information base collected in background and toolkit reports for the Greenway Strategy provides an overview of the current state of the ecosystem along the waterfront.
- A considerable amount of regular environmental monitoring, particularly related to water quality issues, is carried out along the waterfront by federal, provincial, and municipal agencies, providing an information base for prediction of cumulative effects.
- Volunteer-based wildlife monitoring programs, such as the forest bird and marsh bird monitoring programs and the Declining Amphibians Task Force, provide some information on the cumulative effects of habitat changes; a waterfront survey of amphibian populations sponsored by the Trust in 1994 provides another benchmark.
- Some indices and indicator species have been proposed to assist in the evaluation of cumulative effects, such as lake trout for the coldwater portions of the lake, raptors such as bald eagles or osprey along the shoreline, and a Great Lakes Index of Biotic Integrity as a measure of the health of littoral and warmwater habitats.

Steps to come:

- Continued monitoring will be necessary, using uniform data standards as proposed in Action 5.4, to ensure that emerging cumulative effects are detected and that appropriate and timely actions can be taken to mitigate any harmful effects.
- Subwatershed planning should be undertaken (see Action 1.4), particularly where land uses and other activities are in transition, to provide a framework for evaluating watershed changes.
- Integrated Shoreline Management Plans should incorporate an assessment of probable cumulative effects to assist in determining appropriate policies for individual projects.
- A Greenway Report Card should be prepared at a minimum once every three years, using a broad set of barometers of progress. The barometers selected for periodic assessment should:

- relate to the long-term vision for the Greenway, so that progress towards this target can be measured in comparison to current conditions;
- use ecological indicators (such as fish, amphibians) as well as social and economic indicators to provide a broad picture of ecosystem health;
- provide meaningful information to the public on progress or problems, and encourage volunteer participation in data gathering;
- build on existing monitoring efforts to minimize cost and duplication.

An initial set of barometers, for which baseline data currently exists, is included in Table 1. These barometers will be refined and supplemented by additional measures through discussion with agencies and municipalities.

Related implementation mechanisms in Chapter 4 A.4, A.6

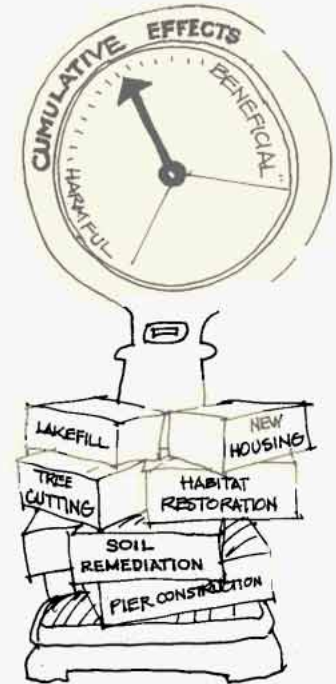


TABLE INITIAL SET OF BAROMETERS OF PROGRESS

| | |
|------------------------------|--|
| Water Quality | <ul style="list-style-type: none"> • Levels of persistent toxic substances in Lake Ontario • Beach postings • Phosphorus trends |
| Habitat Status | <ul style="list-style-type: none"> • Status of natural core areas (designated in OPs, in public ownership, classified as significant, etc.) • Habitat restoration projects |
| Wildlife Populations | <ul style="list-style-type: none"> • Contaminant levels in biota (eg. herring gull eggs, caspian terns, snapping turtles) • Reproductive success in double crested cormorants • Change in population levels and/or distribution of selected Vulnerable, Threatened, or Endangered (VTE) species • Change in community structure and/or distribution of amphibian populations • Size of resident Giant Canada Goose population |
| Planning and Data Collection | <ul style="list-style-type: none"> • Implementation status of Remedial Action Plans • Number of Integrated Shoreline Management Plans • Number of comprehensive watershed and subwatershed plans • Number of Archaeological and/or Cultural Master Plans • Number of Historic Land Use Inventories • Number of standardized data management projects |
| Waterfront Trail | <ul style="list-style-type: none"> • Kilometres of Waterfront Trail completed • Percent of Waterfront Trail off-road |
| Tourism Initiatives | <ul style="list-style-type: none"> • New waterfront attractions • Number of cooperative marketing initiatives in Greenway communities |
| Cultural Heritage | <ul style="list-style-type: none"> • Number of registered archaeological sites and designated historic buildings |
| Greenway Participation | <ul style="list-style-type: none"> • Number of waterfront visitors at selected locations and events • Number and type of new interpretive facilities • Number of Guide and Scout badges earned |

ACTION 5.5

SOURCES OF

ADDITIONAL

INFORMATION:



Schueler, Fred. 1995.
Herptile Survey for the Lake Ontario Greenway.
 (working title)

Ontario. Ministry of Environment and Energy,
 and Ontario. Ministry of Natural Resources. 1993.
Subwatershed Planning.

Canada. Environment Canada. 1995.
Wildlife Watchers: Report on Monitoring.