CHAPTER 10: THE CENTRAL WATERFRONT

This chapter deals with the bioregion's Central Waterfront and its three bays: Humber, Toronto, and Ashbridge's. Two rivers — the Humber and the Don — empty into this part of the waterfront. South and east of Toronto Bay, separating it from Ashbridge's Bay (or what little remains of it), stretches the Leslie Street Spit which, with the Toronto Islands, forms a southern ring around Toronto Harbour. On the landward side, the Central Waterfront stretches east from Park Lawn Road to Woodbine Avenue, while on the north lies the escarpment carved by the shoreline of ancient Lake Iroquois.

The Central Waterfront embraces parts of the waterfronts of two cities: Etobicoke (at its eastern end), and Toronto (as far as the Beach). This area, home of indigenous peoples before European exploration and settlement began, the meeting place where ancient trails joined, and the trading place where indigenous and other peoples have traditionally traded goods and services, is the cradle of our modern region.

It is also the central part of an area identified by the International Joint Commission as one of the hot spots around

Lake Ontario, with clean-up problems as complex and difficult as any in the Great Lakes. In addition, it is the area on the entire waterfront in which the greatest change is occurring. Almost all the places along this waterfront are in a state of transition, which raises major issues but also produces major opportunities — opportunities to regenerate the environment, reconnect the waterfront to the river valleys and the cities to their waterfront, and stimulate economic recovery.

This is the part of the waterfront where the Government of Ontario first made significant interventions, signalling the emerging importance of waterfront issues in the Province. The Provincial commitment to making substantive changes in the way the waterfront is

As we approach Toronto, everything looks doubly beautiful, especially the glimpses of blue Ontario's waters, sunlit, yet with a slight haze through which occasionally a distant sail. The city made the impression on me of a lively dashing place. The lake gives it its character.

Whitman, W. 1904. *Walt Whitman's diary in Canada.* Edited by W. S. Kennedy. Boston: Small, Maynard and Company.

redeveloped can be found in three moves: the declaration of a Provincial Interest in the Etobicoke motel strip and in the East Bayfront/Port Industrial Area; and the ministerial zoning order freezing development on the Harbourfront and Stadium Road lands until redevelopment plans met the test of public values and objectives, including public access to the waterfront.

As then-Premier David Peterson and Cabinet Minister John Sweeney explained when announcing these actions, the Province wanted to ensure the integrity of the Royal Commission's work and provide an appropriate opportunity for formulating policies and plans.

In October 1989, the provincial and federal governments asked the Royal Commission to carry out an in-depth environmental audit of the East Bayfront/Port Industrial Area. In December 1990 the provincial Minister of the Environment asked the Commission to study the feasibility of relocating the Gardiner Expressway, and to examine the possibility of pooling lands and integrating future plans for the Canadian National Exhibition, Ontario Place, Fort York, and HMCS York. Among them, these three studies cover the most important issues on the waterfront: environment, transportation, and land use.

In response, the Royal Commission organized intergovernmental steering committees and work groups, and contracted consultants who have a wide variety of disciplines, skills, and experience, to research the issues and formulate policy, planning, and program recommendations. The Commission also consulted the private sector (business and labour), neighbourhood, environmental, and other community groups, and members of the general public to obtain their views of the problems and opportunities.

The results of these collaborative efforts were published in four background reports (No. 10, *Environment in Transition: A Report on Phase I of an Environmental Audit of Toronto's East Bayfront and Port Industrial Area* (RCFTW 1990); No. 11, Pathways: *Towards an Ecosystem Approach: A Report of Phases I and II of an Environmental Audit of Toronto's East Bayfront and Port Industrial Area* (Barrett and Kidd 1991); No. 14, *Garrison Common Preliminary Master Plan* (Berridge Lewinberg Greenberg et al. 1991); and No. 15, *Toronto Central Waterfront Transportation Corridor Study* (IBI Group et al. 1991)) and, in addition, 12 working papers and an in-depth technical report.

All work was based on the ecosystem approach. A common thread running through every piece was that, because the Central Waterfront has the greatest pressures, problems, and opportunities, regeneration of that area, more than of any other part of the regional waterfront, requires integrated planning.

Balancing and integrating these issues is difficult but necessary. The best example of doing that can be found in the Royal

Commission's last background report, *Toronto Central Waterfront Transportation Corridor Study*. It is based on the Commission's earlier work, reflecting what had been learned about environmental issues during the environmental audit of the East Bayfront, and applying the understanding of place-making that had been developed as part of the Garrison Common Preliminary Master Plan. In its turn, the corridor study gave those involved an opportunity to apply the ecosystem approach to resolving transportation issues, as well as the challenge of integrated environment, land use, and transportation planning.

Therefore, this chapter begins with an essay that follows "*Watershed* Update", which summarizes the process and findings of the transportation corridor study, describes how governments could move toward integrating the elements of the ecosystem, and proposes a Stage I program designed to reach that goal.

This is followed by a survey of various places in transition, starting with Humber Bay, the western gateway to the Central Waterfront, and concluding with the Lower Don Lands at the eastern end. There is no reason to comment at length on those waterfront places — Swansea, High Park, Parkdale, the Toronto Islands, and the Beach — that have important qualities of their own but are not in serious or significant transition. Obviously, the Commission recognizes their values, and urges that these be maintained.

For the purposes of this analysis, the Commission classifies the places along the waterfront according to a combination of natural, cultural, and/or functional characteristics. The transitional processes affecting them have been operating for at least 20 years. All these areas have smaller sub-places, districts or neighbourhoods within them, each with its own characteristics and functions as part of the greater whole. They are discussed in the following order:

Humber Bay:

- eastern Etobicoke
- Humber bridges
- Swansea
- High Park
- Sunnyside
- Parkdale

Garrison Common:

- Ontario Place
- Exhibition Place
- HMCS York and Coronation Park
- Fort York
- Northern Industrial Area
- Niagara neighbourhood
- Fleet Street
- Lower Bathurst

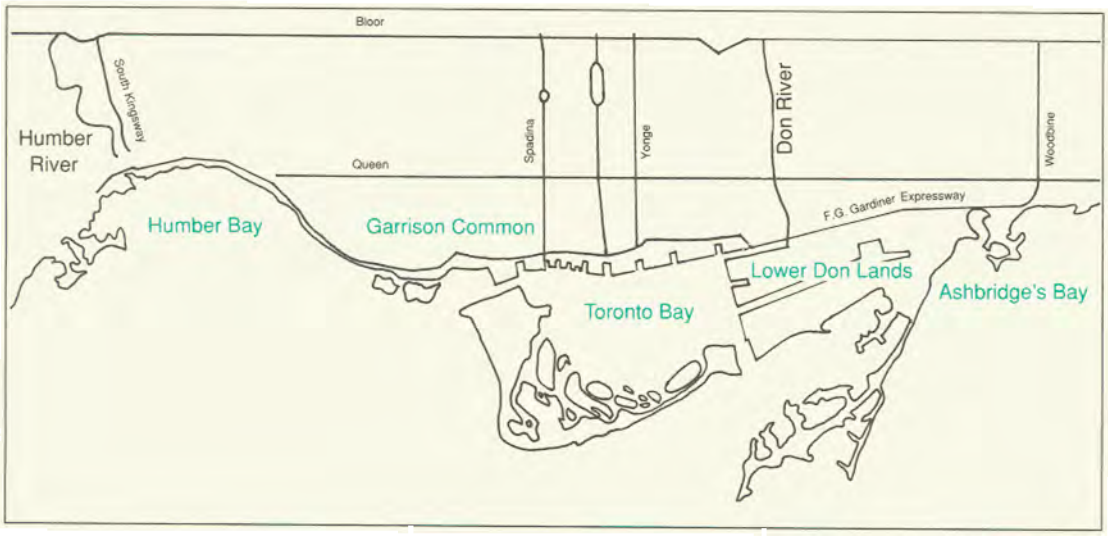
Toronto Bay:

- Railway Lands (CityPlace, Central Park and Southtown)
- Harbourfront
- Toronto Island Airport
- Union Station, and Bayfront

Lower Don Lands:

- East Bayfront
- Ataratiri Lands
- Gooderham and Worts
- Lower Don Industrial Area
- Port of Toronto
- Cherry Beach
- Leslie Street Spit (Tommy Thompson Park)
- Ashbridge's Bay

Map 10.1 Central Waterfront



There is remarkable diversity within and among the different places along the waterfront. It must be recognized and sustained. At the same time, there is the potential to integrate the area's natural and cultural environments with transportation functions and land use in a way that connects the various places along the waterfront, links the waterfront to the hinterland, and attaches the central waterfront to the region.

At present, proponents of plans for the various places bump into one another as they try to move through the maze of approval processes, an intra- and inter-governmental gridlock. None, however, can move alone. Matters along the waterfront are complex and linked to each other. Progress in shaping and improving the waterfront, regenerating the environment, and reviving the region's economy requires consensus about its future and the various places along it.

> ***Technology makes a good servant but a bad master.***
> ***— Jacques Ellul***

Co-ordinated action plans and partnerships, which are also needed, are discussed in Part IV.

WATERSHED UPDATE

In its *Watershed* report, the Commission described the Gardiner/Lakeshore Corridor as the central fact of the Central Waterfront, and noted that:

> Depending on the decision made about its future, the people of Greater Toronto will have an excellent waterfront — or they will not. The waterfront will be integrated into downtown Toronto — or it will remain essentially separate from it.
>
> The combination of the elevated portion of the Gardiner Expressway, Lake Shore Boulevard underneath it, and the rail corridor beside it has created a physical, visual, and psychological barrier to the Central Waterfront.

It is a constant source of noise and air pollution, a hostile, dirty environment for thousands of people who walk under it daily, and a barrier to thousands of others who risk life and limb to get across or around it. The Gardiner/Lakeshore is not only a road; it is a structure. As it processes traffic, it stunts land use; meant to move us along, it limits our opportunities.

The Commission has concluded that the elevated portion of the Gardiner Expressway is incompatible with the fundamental environmental and land-use objectives in the Central Waterfront.

With respect to the rail corridor the Commission concluded that:

As it crosses over major north-south arteries such as York, Bay, and Yonge streets, the rail corridor is a major barrier between the City and the waterfront, visually and in day-to-day pedestrian use. The effect can be greatly reduced by such changes as glass partitions between the sidewalk and road traffic, improved lighting, and possibly opening up retail outlets along the sidewalks under the rail corridor.

The length of the underpass and its barrier effect will be substantially reduced when the rail corridor is narrowed in preparation for redeveloping the Railway Lands.

Pedestrian walkways and amenities could be greatly improved south of the railway corridor, as suggested by the Gardiner/Lakeshore Task Force, which proposed tree-lined, widened sidewalks and improved pedestrian crossings to recreate Lower Yonge as an urban street, rather than an expressway ramp.

Another promising possibility would be to deck over the rail corridor in the central area, to allow pedestrian access between the City and the waterfront, in conjunction with a newly created plaza and park, which would have harbour vistas.

The Provincial Response

In December 1990, in response to these comments, the Province of Ontario asked the Royal Commission, in consultation with the Ministry of Transportation and Metropolitan Toronto, to address the feasibility of relocating the Gardiner Expressway.

Setting up the Study

In early 1991, in order to reconcile transportation functions with environmental regeneration and evolving land uses along the Central Waterfront, the Royal

Creating sustainable urban transport systems that meet people's needs equitably and that foster a healthy environment requires putting the automobile back into its useful place as a servant. With a shift in priorities, cars can be part of a broad, balanced system in which public transport, cycling, and walking are all viable options. Neither the exploding Cairos and Delhis nor the relatively stabilized New Yorks and Londons can sustain future growth in automobile use.

Lowe, M. D. 1991. "Rethinking urban transport." In *State of the world 1991*. Washington, D.C.: Worldwatch Institute.

Commission — with the active participation of the Province, Metropolitan Toronto, the City of Toronto, and the federal government — contracted with a consulting team comprising 11 different firms and individuals to undertake a major study.

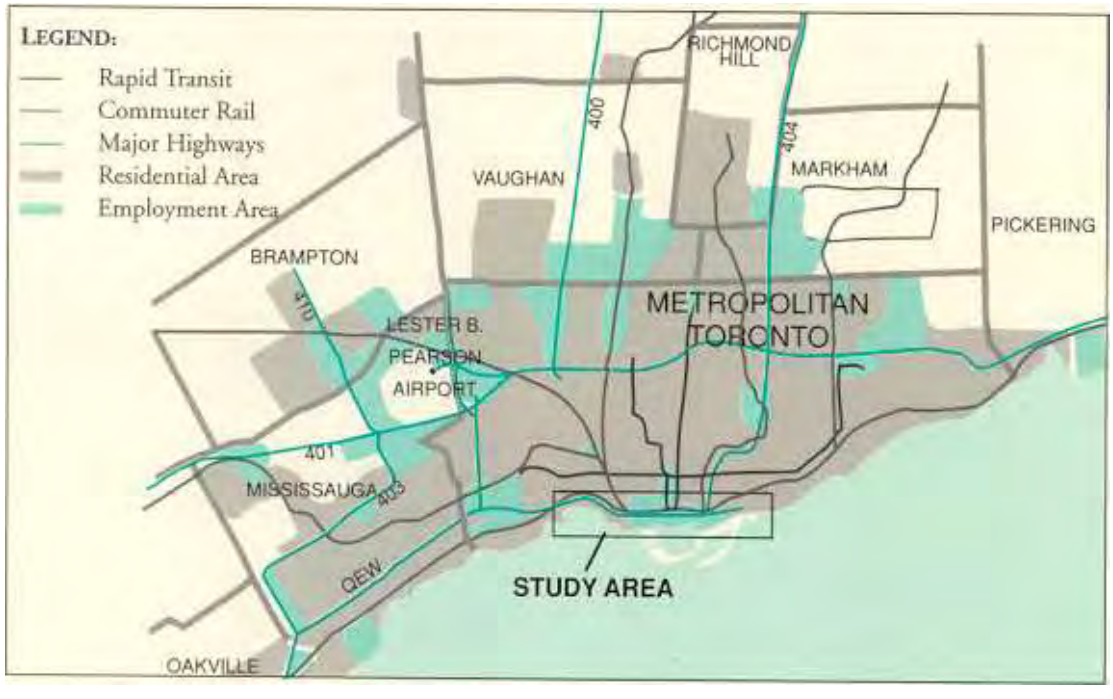
The team that was assembled included a broad range of skills and expertise in a variety of disciplines: environmental science, landscape architecture, urban and regional planning, land use and land development, transportation and civil engineering, economics, and finance. A steering committee was organized, composed of senior officials from all four levels of government and the special-purpose bodies concerned; in addition, a work group of technical specialists from Metropolitan Toronto, the City, and the Province was established to provide overall direction and technical advice and support for the study.

The terms of reference specified an integrated ecosystem approach, one that brings together environmental, land-use, transportation, and economic considerations, and asked the team to take a long-term (20- to 30-year) planning perspective.

The team was also asked to consider the Gardiner/Lakeshore in the light of three objectives:

- to improve the Central Waterfront, recognizing its strategic importance as a place, as well as a corridor, in the context of the Greater Toronto bioregion (GTB);
- to improve the relationship and links between the GTB, the central city, and the waterfront, and;
- within the context of the first two objectives, to improve the overall transportation system to and through the Central Waterfront.

Map 10.2 Regional context



The primary geographical focus of the study was the Central Waterfront: i.e., stretching from Park Lawn in the west to Woodbine in the east, Queen Street in the north and the water's edge to the south. However, the study also examined the Central Waterfront in the context of a Toronto's Central Area: from Bathurst Street to the Don River, and from Lake Ontario to the CP Rail tracks north of Dupont Street. Considerable thought was also given to the full regional context and functions: to the area beyond Metropolitan Toronto, as well as the implications for all of Metro of changes to the Central Waterfront.

Summary of the Study Findings

The study was completed in November 1991, and the results published in two documents: Publication No. 15, *The Toronto Central Waterfront Transportation Corridor Study* (IBI Group et al. 1991), and a detailed 450-page technical report. In a sense, the study belies its name: while it establishes the fact that the role of the Gardiner/Lakeshore is diminishing in the overall regional transportation system, it does more than that. The study also offers new insights on future environmental conditions; green infrastructure; the strategic value of place-making on the Central Waterfront, supported by a major housing program and transit expansion; the need for consolidated capital budgets among participating governments; and the role of the private sector. It came to the conclusion that:

> It is both feasible and desirable to relocate and redesign the expressway and Lake Shore Boulevard, as part of an integrated and phased plan to improve the Central Waterfront.

2. Green infrastructure (parks, open space, and waterfront trail links) and other environmental infrastructure are needed as a priority in regenerating the waterfront.
3. Regionally, workplaces and living places must be integrated, in order to reduce sprawl, improve the regional urban structure, contribute to regional environmental goals, reduce dependence on the automobile, and moderate the pressure of commuter traffic on the Central Waterfront and the central area.
4. There are major opportunities for place-making and community-building on the Central Waterfront.
5. A substantial and sustained long-term housing program would be a catalyst for doing so.
6. There is a need to maintain and extend a connected arterial road system to support the regional economy.
7. A "civilized" street system should be designed as the armature around which places, community, and green infrastructure can be organized in the Central Waterfront.
8. There is an urgent need to expand the transit system as a means of linking the region and the centre and of providing freedom of movement and circulation within the centre.
9. If the necessary critical mass of private and public investment is to be created, integrated approval processes, consolidated capital budgets, and timely decision-making are vital.
10. The framework and conditions for private-sector involvement should be established, in order to fully exploit its enterprise, initiative, and capability for investment and creativity.

The first stage of the suggested implementation program in the study offers opportunities for public/private sector co-operation and action.

These matters, which are part of the summary that comprises the rest of this chapter, are covered in greater detail in *The Toronto Central Waterfront Transportation Corridor Study*; readers who are particularly interested in this aspect of the waterfront should read it in conjunction with this part of the final report.

THE REGIONAL CONTEXT

The consultants first examined the relationships between the Central Waterfront, the Central Area, and the region in the light of economic trends, population growth, and changing land uses since the Second World War. This included the migration of heavy industry from the centre to the suburbs, the accompanying changes in rail and road systems, office and commercial growth in the Central Area and in the regional centres, and the residential growth of suburbs.

Toronto's Central Waterfront has undergone economic changes similar to those in other major metropolitan areas: at the end of World War II, Canada was the world's fourth-largest manufacturing country. While manufacturing has continued to be of basic importance to Canada's economy in the years since then, its relative significance has declined and its nature has changed as other nations have developed their own capabilities and Canada's service economy has grown.

During the war and for some years following it, Toronto's Central Area and parts of South Etobicoke and Scarborough, as well as areas north of what is now Metropolitan Toronto, contained perhaps the single largest concentration of manufacturing capability in Canada. This important sector was supported by the massive road-building program of the 1950s and 1960s which included, among other important links, the Gardiner Expressway, the Don Valley Parkway, and Highway 401.

However, as the metropolitan region grew, land values in the Central Area increased dramatically and so did intensification of land uses in the Central Area and Central Waterfront. As early as the 1960s, and in the face of these trends and the resultant increases in road traffic and congestion, heavy industries started to migrate from their original, central locations to suburban sites where land values were lower, modern one- or two-storey facilities could be constructed economically, and adjacent freeways provided greatly improved access for increasingly important truck traffic.

Thirty years ago CN Rail also decided to transfer its rail freight operations from the Central Area to the suburbs. It built a by-pass freight rail line (the York and Halton subdivisions just north of Metro's boundary), and constructed major new freight yards adjacent to that line. Similarly, CP Rail created a major new freight classification yard at Agincourt and moved its freight operations from the centre, while continuing to use its Galt, North Toronto, and Belleville subdivisions (which pass through midtown Metropolitan Toronto) as its main freight line. The railways were responding to the same economic forces and the centrifugal migration of their major industrial customers: it was efficient and economic to build the extensive new classification yards on suburban land, which was also well served by highways for truck

interchange movement, and to free up more valuable downtown land for other, more intensive, urban uses.

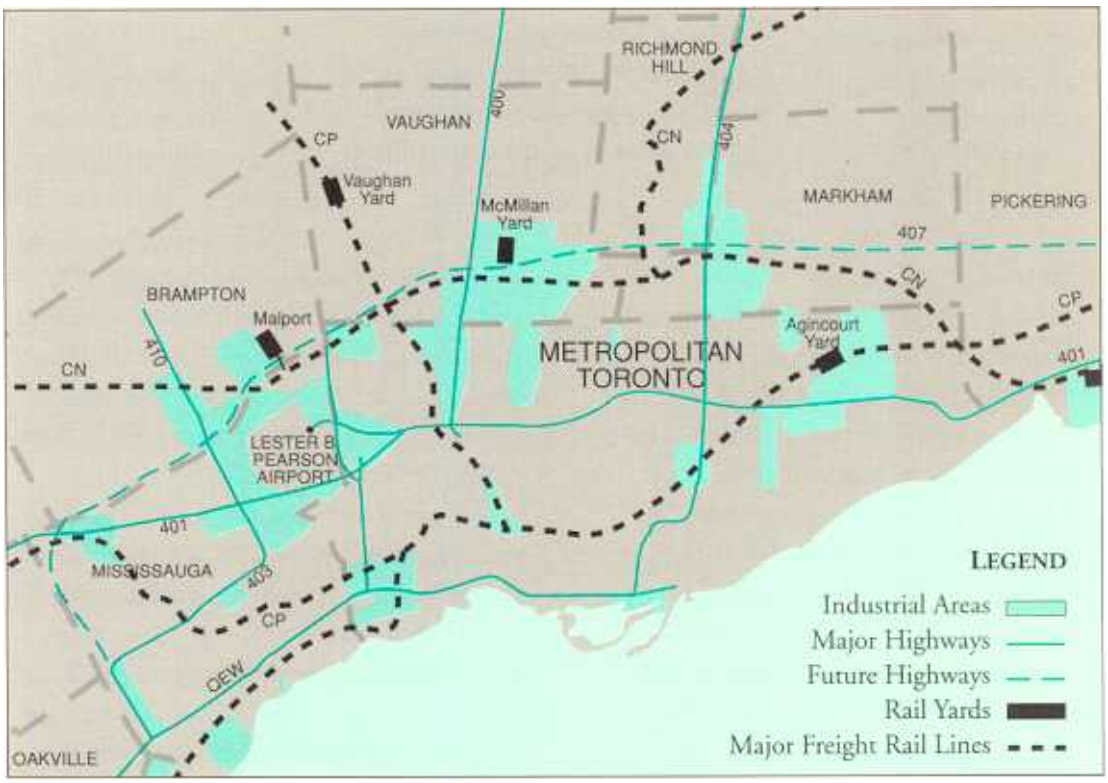
The railways' move also freed up significant capacity on the "spider's web" of radial rail lines converging on Union Station, allowing the Province of Ontario to introduce commuter rail service, initially on the Lake Shore West and Lake Shore East lines, in 1967.

The major concentrations of heavy industry, as well as of other industrial activities, are now in the outer reaches of Metropolitan Toronto (e.g., towards Pearson International Airport and in northeast Scarborough) and beyond (in Oakville, north Mississauga, Brampton/Bramalea, Vaughan, Markham, Pickering, Ajax, Oshawa, etc.). While some of these municipalities had substantial industrial activity during and following the War, all have benefitted economically from the industrial exodus from central Toronto, and have experienced related residential growth.

During the 1960s and early 1970s, most of the remaining underdeveloped land in Metropolitan Toronto was covered, and there has been dramatic population growth in the outer regional municipalities (Peel, Durham, York, and Halton) in the past two decades.

As documented in the 1990 *Greater Toronto Area Urban Structure Concepts Study* (IBI Group et al.), earlier suburban residential development in Metropolitan Toronto was relatively compact and occurred in the context of a well-developed urban transit system. Until very recently, by contrast,

Map 10.3 Major existing industrial areas, freight rail, and highway facilities



development in the outer regions tended to be at lower densities, without the benefit of extensive urban transit services, and it created extensive auto-dependent areas surrounding Metropolitan Toronto. These trends added greatly to the pressure for cross-boundary commuting trips to jobs within Metropolitan Toronto, a large majority of which are by automobile.

As these regional changes were going on, a trend developed on the Central Waterfront for more intense and specialized land uses, utilizing the hundreds of hectares of prime land vacated by industrial and rail activities. Obvious examples include the expanding financial service industry, manifested in the office buildings of major international and national financial institutions in Toronto's central core. Office, retail, and trade activities also expanded and intensified greatly in the Central Area, as well as in other city centres (e.g., North York, Scarborough, Mississauga) in keeping with the Metropolitan Toronto Official Plan, the Official Plans of adjacent municipalities, and provincial policies.

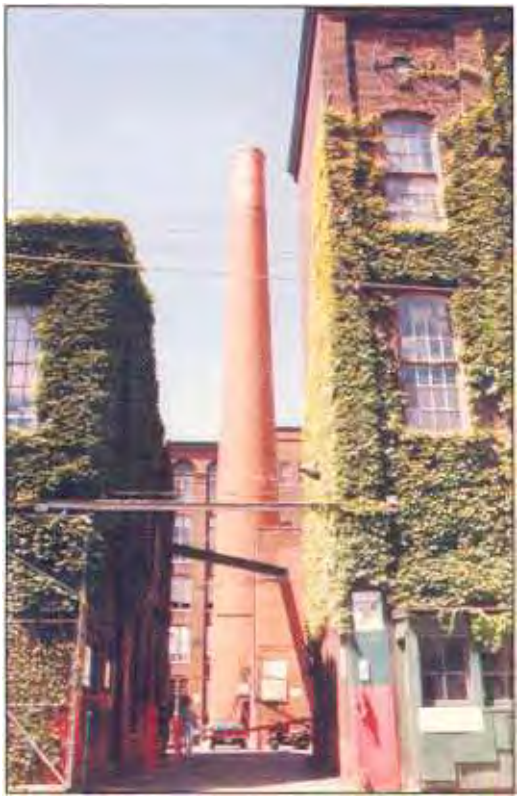
The Central Area will remain paramount in the region and will continue as a major financial centre in the global markets of the next century.

In recent years, total office/commercial growth in the regional centres and throughout the region rivalled that of the Central Area in absolute terms; but the Central Area remains an order of magnitude greater in size, diversity, and critical importance than any others. While continuing growth is anticipated in all these centres, it is expected that the Central Area will remain paramount in the region and will continue as a major financial centre in the global markets of the next century. In addition, the Central Waterfront has become the focal point for Toronto's important international tourism, trade, and convention industries and associated recreational areas and facilities.

While there has been a tendency to move heavy manufacturing and related warehousing to the suburbs, there has been significant growth in a wide variety of light industrial activities, sometimes referred to as urban industrial, which are thriving in the shoulder areas adjacent to the financial core. These activities, many of which are directly related to office/commercial activities but cannot support premium rents, include the burgeoning information industry (computer systems, data processing centres, word processing, software development, communications) and media industries (e.g., publishing, film, music, visual art) that have expanded in their own right and in support of other commercial activities.

Such urban industrial activities tend to be "at home" in medium-rise (four- to eight-storey) buildings located on urban streets, and have naturally congregated in buildings in the shoulder areas surrounding the financial core. Accordingly, these areas have been transformed in both occupying uses and physical rehabilitation, particularly during the past two decades.

Beginning in the 1970s, and especially after the OPEC cartel crisis, the suburban dream began to crumble as gas prices rose. At first, those who already lived downtown simply stayed put; later, people who had moved out began to move back in. In doing so, they were renewing a Toronto tradition



Many buildings that housed industry have been converted for office and retail use

— maintaining the downtown as a place, not just for the very rich and the very poor, but for middle-class families.

Population, Employment, and Travel Projections

Having considered the past and present regional context, the team examined the projections of the Central Area's share of population and employment projections to the year 2021, as well as forecasts of travel demand; on that basis it assumed a total regional population of 6 million people with a total employment of 3.4 million.

To evaluate the implications of the relationship between place of work and place of residence, including various degrees of compactness, five land-use scenarios were developed, representing a range of future possibilities for the region. These were used as a basis for estimating travel demand to the year 2021.

In four scenarios, the 2021 population in Metropolitan Toronto was 2.8 million, and in the fifth 3.2 million, while in all five scenarios, Metro's 2021 job total was assumed to be 1.9 million.

The 2021 Central Area resident population in the scenarios ranges from 235,000 people to 405,000, compared with the 1986 level of 133,000 people. Future employment there ranges from 571,000 to 617,000 jobs by 2021, relative to the 1986 level of 429,000 jobs. The higher number of people, compared with the number of jobs, reflects policies of the City of Toronto and Metro and is consistent with the 1989-1990 provincial long-term forecasts for the Greater Toronto region.

The projections and scenarios were used throughout the study as a basis for considering the implications of growth for environmental conditions, place-making, and transportation requirements.

Environmental Conditions

The environmental conditions of Toronto's Central Waterfront have always been dynamic, responding to changes in climate; forces of glaciation; the power of wind and waves; and, more recently, human activities.

For thousands of years, aboriginal people travelled the rivers — trading, fishing, and hunting. For them, "Toronto" meant a "meeting place" at a natural lakeside landing. Few in number, the Indians lived lightly on the land: they made trails in the forests, cut timber for shelter and firewood, hunted

and fished for food, and planted crops on small clearings above the valleys.

With the arrival of European settlers in the 18th century, the environment began to change dramatically. As described in Chapter 4, the waterfront was soon modified to provide piers for the boats and ships that were the primary means of transportation. Large quantities of stone were removed from nearshore waters for ballast and building. The land base was extended by lakefilling: almost all the land south of Front Street was once part of the lake; the vast Ashbridge's Bay marshes at the mouth of the Don River became a new port and industrial area. The ponds and creeks of High Park were severed from Lake Ontario, first by railway lines, and then by lakefill at Humber Bay, where a breakwater was built to protect the newly created beaches from wave action and to establish sheltered water for boating.

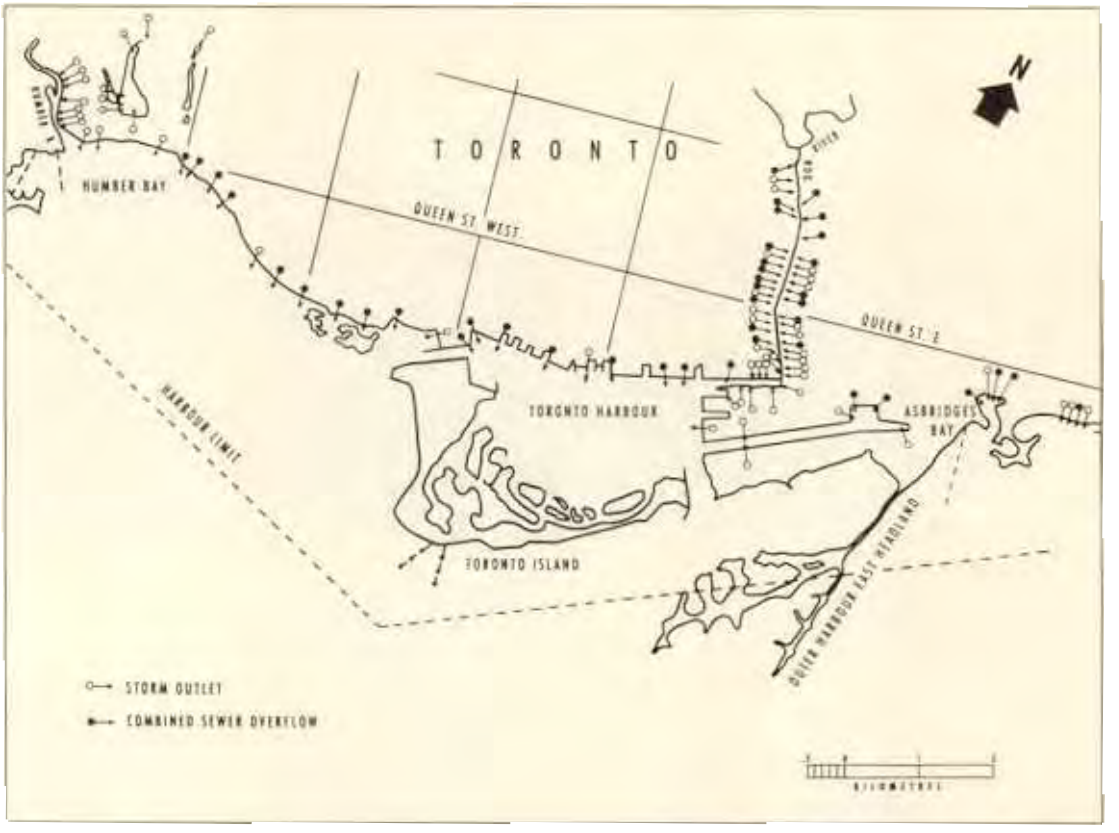
Humber and Toronto bays quickly became repositories for the wastes of the growing population: first for raw sewage and industrial effluents, later for waste that had undergone varying degrees of treatment. Today, stormwater and treated sewage from three treatment plants pollute the Humber and Don rivers and the lake; this is still one of the most serious environmental problems in the Central Waterfront (see Chapter 3).

If Elizabeth Simcoe, wife of Upper Canada's first lieutenant governor and a diarist who faithfully recorded her impressions of Upper Canada, could visit the Central Waterfront today, she would find little to remind her of the wetlands, sand spits, clear rivers, creeks, and forests she enjoyed nearly two hundred years ago. In their place, she would find the manicured lawns of the Western Beaches, the asphalt of the CNE, the built landscape of Harbourfront, the lower Don in its concrete channel, the vacant lots and old industrial buildings of the Port District.

There are only small, fragmented patches of good-quality natural habitat remaining in the marshes of the lower Humber River, High Park, the Toronto Islands, and the Cherry Beach area. But pehaps Mrs. Simcoe would be pleasantly surprised to explore the Leslie Street Spit — a headland created by lakefill — where she would find many of the plants and animals that once lived all across the waterfront. A victim of malaria ("the shaking ague"),

Painting of the Town of York, 1803

Map 10.4 Storm outlets and combined sewer overflows



she would certainly enjoy the decline in mosquitoes!

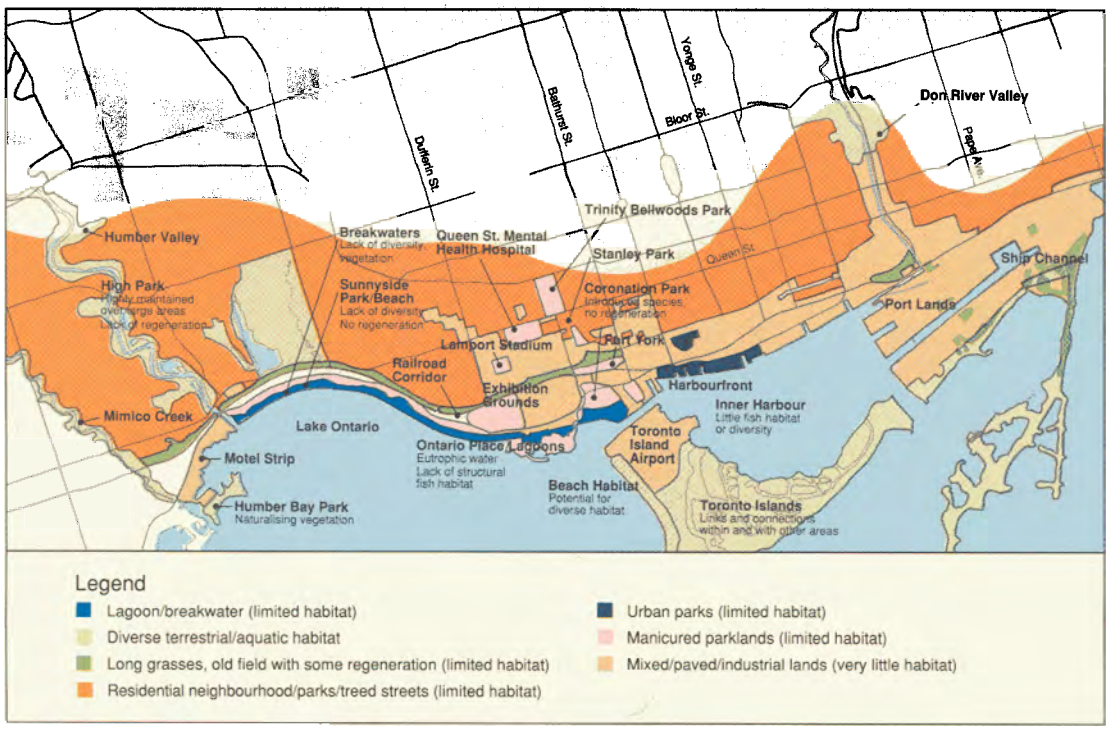
Typical of most towns and cities, Toronto tended to ignore the floodplains of its rivers as it grew along their fertile valleys. Hurricane Hazel, which swept through this area in 1954, wreaked havoc across the city, destroying lives and property, especially in the Humber watershed. In the aftermath, authorities moved to keep many river valleys free of development, to avoid future tragedies. However, some older areas of the City, particularly in the Central Waterfront, still sit in the floodplain of the Don River.

The microclimate of the Central Waterfront is affected by both the city and by the lake. All cities affect their climatic conditions: vehicles and the heating/cooling systems of buildings create excess heat; built form creates shade and changes wind patterns and speeds; and pollution in the air reduces the intensity of solar radiation. Combined with these factors, the Central Waterfront is influenced by weather patterns associated with the lake: wind, fog, and the moderating effects of the water on temperatures.

Air quality in the Central Waterfront generally meets health-related guidelines, except that there are often high levels of ground-level ozone during spring and summer; there are high levels of nitrogen dioxides, carbon monoxide, volatile organic compounds, and dust near the transportation corridor.

In the past decade, pollution from all sources except vehicle emissions has been

Map 10.5 Habitats



reduced in the City of Toronto. Although advances in technology could be expected to reduce automobile emissions in the future, the *Toronto Central Waterfront Transportation Corridor Study* concluded that benefits in terms of overall air quality may be minimal:

> . . . over the next 30 years, technological developments may make possible substantial reductions in energy consumption and/or vehicular emission per vehicle-kilometre, but absolute reductions in energy consumption and the impact on the environment would require greatly improved transit and changes to land use/urban structure. These will be needed in order to reduce average trip lengths, encourage transit use, and motivate behavioural change to divert discretionary travel from cars to transit, cycling, and walking. Stabilization or reduction of vehicle-kilometres of auto travel will be required if we are to achieve the significant reductions in automobile energy consumption and emissions made possible by technological developments.

Air pollutants from industrial activities also cause concern locally; in the Port Industrial Area, for example, high levels of dust and odour create unpleasant conditions and sometimes affect nearby residential neighbourhoods (such as parts of South Riverdale).

Transportation is also the greatest source of noise in the Central Waterfront: traffic on the Gardiner/Lakeshore, trains and shunting yards, aircraft at the Toronto Island Airport — all are major contributors. Residential communities on the Toronto Islands and at Harbourfront have been particularly affected by aircraft noise. Buildings in the St. Lawrence neighbourhood were designed without open windows and

balconies facing the Gardiner/Lakeshore/railway corridor.

The Ataratiri and East Bayfront/Port Industrial areas are also subjected to high noise levels from the transportation corridors, which may restrict the form and design of any residential buildings there.

Lakefilling and former industrial activities have left a legacy of contaminated soils and groundwater in much of the Central Waterfront, particularly Ataratiri, the Railway Lands, and the East Bayfront/Port Industrial Area. In many places, toxic metals, oil and grease, and complex organic chemicals are found at levels that may have harmful effects on people, other animals or plants.

The costs of cleaning up — which must be done if these lands are to be kept in productive use — are uncertain because of a lack of knowledge on several fronts: the full nature and extent of the problem; standards to which the soil must be cleaned; and the best methods of treatment. There are many methods, of varying cost and effectiveness, so that not even experts can say with certainty what should be done and how much it will cost.

The uncertainties and the possible liabilities have caused almost all parties — owners, investors, lenders, and governments — to hesitate. For its part, the banking industry has identified the problem as the biggest single domestic issue facing Canadian banks in the 1990s. To avoid potential liability, which could exceed the value of assets, banks are simply refusing to extend credit to business facilities that show signs of pollution. However, the problem cannot be ignored; nor should we allow it to bring clean-up to a grinding halt.

The built environment of the Central Waterfront is a mixture of old and new, from the historic Gooderham and Worts distillery to the high-rise condominiums of Harbourfront. Although much of the heritage on this part of the waterfront has already been lost to redevelopment, enough remains to retain a sense of history — if changes are approached thoughtfully.

Although every one of the Commission's studies in the Central Waterfront focused on environmental conditions, the environment of the East Bayfront/Port Industrial Area was studied in greatest depth. The environmental audit of that area is relevant to the rest of the Central Waterfront in two respects: first, many of the audit's findings and recommendations are appropriate to other places along the waterfront. Second, the audit process is applicable to future studies elsewhere. (A description of the audit results is included in the Lower Don Lands section of this chapter.)

Having reviewed past, present, and possible future environmental conditions (air, water, soil quality, and other factors) along the Central Waterfront, the *Toronto Central Waterfront Transportation Corridor Study* concluded that:

> Urbanization processes in the Central Waterfront have degraded both terrestrial and aquatic habitats resulting in a poor environment for wildlife and for human activity. The ongoing transition of the Central Waterfront from largely industrial and related transportation uses to a more diverse and urban place — and the fact that hundreds of hectares are currently vacant or underutilized and waiting for the second half of the transition to occur — provides this generation of Torontonians with a unique opportunity to improve the area's natural and physical environment

— first in terms of creating a "green infrastructure" of open spaces, parks, and links and then in terms of other aspects of environmental quality.

The study sees green infrastructure as an essential element of urban infrastructure, as important as — some would say more important than — streets and utilities. "Green" is shorthand for natural and pedestrian spaces of many kinds, from plazas and streets to public gardens and urban wilderness. The arrangement and proportion of paving, structures, and plantings vary, but green infrastructure has certain common characteristics: it provides a useable, diverse, open, accessible, connected, safe, and attractive environment for people outdoors, whether they are walking, running, playing, sitting, lounging or using wheelchairs, bicycles, or roller skates.

The reviews of environmental conditions undertaken for the Transportation Corridor Study and the Environmental Audit of the East Bayfront/Port Industrial Area provided an understanding of the requirements for green infrastructure and environmental regeneration in this area. For example, it became apparent that plans and programs in the Central Waterfront should:

- take into account current and future pollution levels and noise from all sources;
- include measures to improve the quality of water, soils, and air;
- ensure that studies are conducted to assess levels of toxic contaminants in air; assess air quality in the vicinity of the Gardiner/Lakeshore Corridor; undertake further air modelling in the area; and assess noise levels in the area;
- ensure that there is an adequate buffer between industry and utilities, including the Main Sewage Treatment Plant, and any sensitive uses in the area;
- include consultation with emergency response departments on access, hazardous material use and storage, and availability of hospital and other emergency services;
- increase the diversity and connectedness of parks and other open spaces;
- ensure that future recreation in, and access to, open spaces in the area strikes a balance between the needs of people and those of wildlife;
- increase the diversity and quality of terrestrial and aquatic habitats;
- maintain and enhance the diversity and distinctiveness of places in the Central Waterfront, and, through integration and reuse, keep as much as possible of the area's industrial and natural heritage; and
- protect and enhance vistas.

PLACE AND CORRIDOR

The central theme of the *Toronto Central Waterfront Transportation Corridor Study* is the balance between place and corridor within this regional and environmental framework.

As used in the study, "place" is shorthand for a habitable place, a memorable place, one that can be occupied comfortably by people on foot or seated, to linger and appreciate, a place which can and should be clean, green, useable, diverse, connected, and beautiful. In short, a pleasant and accessible place. It is a suitable and desireable

place in which to work, live, and play — a place that can be developed economically.

The term "corridor" is used as shorthand for a passageway for high-speed and efficient movement, the primary purpose of which is the easy flow of powered vehicles and where people on foot or bicycle or in a wheelchair are unwelcome and unsafe. The corridor may contain different modes of transport: rail, road, transit, etc. If the transport is by automobile, the corridor usually connotes an expressway, highways, regional or arterial roads — through routes, as opposed to main, local or neighbourhood streets that rank lower in the road hierarchy.

Many main or neighbourhood streets in Toronto accommodate movement and, in a sense quite different from that meant in the study, can be described as corridors. But a street's place-making — its social attributes are dominant. If done well, the social or place-making element gives main and neighbourhood streets a civilized quality. However, there is a limit to their capacity to perform this function if they are made to carry too much traffic.

The central theme of the study is the balance between place and corridor.

Protecting Toronto's neighbourhoods from corridor traffic has channelled vehicles to fewer and fewer free-flowing corridors, and these, having surpassed their social carrying capacity as places, have now reached their transportation carrying capacity as corridors. The primary vehicular conduit serving the downtown is the Gardiner/Lakeshore couplet.

To varying degrees, it compromises the habitability of all the places it goes through, but it does so most severely between the downtown and Toronto Bay. The balance of place-making and corridor-making design criteria will have to shift in favour of the former if this central piece of the waterfront is to become truly habitable, an integral part of the downtown.

PLACE-MAKING

For the past several decades our regional community has been playing out two urban development themes. The first has been continued urban sprawl, designed around the auto as the dominating factor, augmented by single-use zoning, which was originally intended to separate unhealthy industrial workplaces from residential areas. It is characterized by free-standing houses, separated workplaces, and shopping centres linked by vast networks of roads. This form has been immensely popular, space-consuming, and, it is now apparent, very expensive in land, money, environmental health, and travelling time.

The second theme is becoming increasingly evident here, as in other parts of the world: it features closer integration of workplaces and living places, more compact mixed-use zoning interspersed with larger green spaces, a greater role for transit, and less reliance on cars. This composite model for development has begun to take hold in Toronto's Central Area, and is showing signs of acceptance elsewhere. All the Commission's studies, including the *Central Waterfront Transportation Corridor Study*, reinforced the need for a greater emphasis on the second model.

A significant portion of the study dealt with the ingredients of place-making, the changes and planning approaches necessary for a more habitable central waterfront. It

> We are molded, we say, by the conditions and the surroundings in which we live; but too often we forget that environment is largely what we make it.
>
> Bliss, C. 1904. *The kinship of nature.* Toronto: Copp Clark.

pointed out that there is a unique opportunity to make the waterfront memorable, as the result of the regional shift in heavy industrial and related transportation uses from the city core to the periphery. Making the waterfront a better place will not only be of benefit locally, but will help the city and region as a whole. This offers a chance to create an extensive green infrastructure, a better quality of urban development, and economic growth in the City's Central Area, which is otherwise constrained for space.

The study showed that a quantity of new housing is particularly important; it will reduce pressures for more long-distance commuting; create a livelier, more diverse, and safer place day and night throughout the week; and reduce the tendency to destroy outlying countryside.

The presence of people who live on or close to the waterfront in well-designed communities is the best way to ensure the vitality of the Central Waterfront, assure public security and safety, and encourage the fullest use of waterfront amenities.

The study envisages a range of neighbourhoods (and supporting community facilities), with a wide mix of different housing types and tenures, and a population that is socio-economically reflective of the region: all income groups, all ages, all family types, including childless couples, singles, and people who are able-bodied as well as those who are handicapped.

Given the Central Area's dominance as the region's workplace, with its current surplus of office capacity, more emphasis on housing and community development will help to redress the balance and integrate workplace and living place there.

In order to understand the full scope as well as the impediments to place-making there, and to explore the regional effects, the team studied each of the places along the Central Waterfront. They also analysed the emerging land-use trends, including land prices and related economic considerations.

It became clear that there is sufficient land capacity — some 300 hectares (750 acres) — to accommodate most or all of the expected increase in the Central Area population, projected at between 100,000 and 270,000 people. Furthermore, it is also obvious that jobs, housing, and related community facilities on the waterfront could co-exist in mixed-use developments.

The analysis showed that at normal Central Area densities and at the rate projected in Cityplan '91 (3,500 housing units per annum), one year's production of housing would consume about 16 hectares (40 acres) of Central Waterfront land (rather than the 280 hectares (700 acres) that suburban densities would consume).

It also showed that increasing the ratio of population to employment in the Central Area, and creating a more compact urban structure in the Greater Toronto region, would reduce increased demand for travel into the centre, by as much as 50 per cent.

But the analysis showed that if place-making in the Central Waterfront is to be done well, the barrier and environmental effects of the Gardiner/Lakeshore and the rail corridor would have to be eliminated or substantially reduced; the green

infrastructure would have to be installed; and the City's normal "neighbourhood-friendly" street grid would have to be extended wherever possible south of Front Street to the water, where it does not now exist.

This more interconnected, multi-use, civilized street network would have to be developed as the armature around which housing, mixed-use development, and a green infrastructure could be created.

It is also obvious that jobs, housing, and related community facilities on the waterfront could co-exist in mixed-use developments.

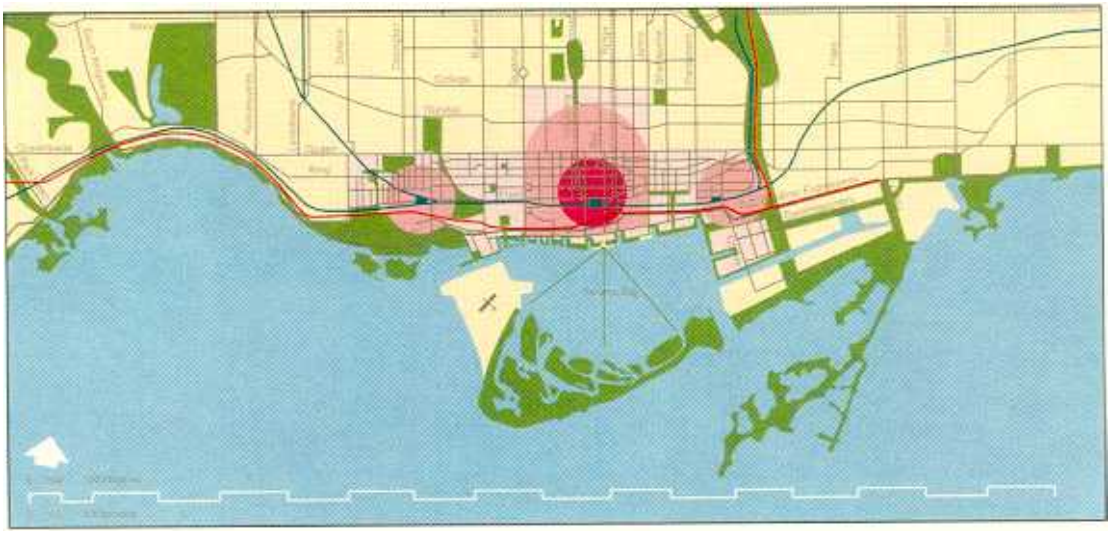
THE CARRYING CAPACITY OF CITY STREETS

As development in the region around Toronto spreads, it becomes increasingly obvious that the Central Area road network is limited: untold acres of land in outer municipalities have been dedicated to road networks that, increasingly each year, feed traffic that winds up on the Central Area's fixed amount of roadway. Moves to make this central road network operate more efficiently lead inevitably to road designs that only increase traffic flow, and that do so at the expense of the pedestrian environment and the sense of the street as a habitable public place.

A neighbourhood street can be wonderful: the public domain that serves as a means of address to the houses along it, a space in which neighbours meet and children play, where trees grow, and from which services of all kinds are supplied. A main street can be equally enjoyable: diverse and active, organizing elements that serve the local community, it offers shopping, commerce, entertainment, and the company of others.

Such main streets frame public space. While they permit traffic movement, they have a finite carrying capacity which, if exceeded, changes them from being attractive to becoming dreary stretches that serve

Map 10.6 Emerging urban intensities in the Central Waterfront



only vehicles going to and from somewhere else. In the shorthand of the *Central Waterfront Transportation Corridor Study*, they become corridors dedicated to or dominated by traffic, rather than public places.

The turning point or threshold at which place-making dominates corridor-making can be called the social, as opposed to transportation, carrying capacity of the street. While not usually expressed that way, the fact that liveable streets have a carrying capacity is well-known to residents of Toronto's neighbourhoods. They have successfully insisted that traffic flow remain below this threshold — a major reason that Toronto's neighbourhoods work so well.

The team suggested that the street system in the Central Waterfront be designed to meet standards that limit — and, if necessary, reduce — the quantity of commuter traffic to fit a street's social carrying capacity; necessary transportation capacity would be made up by improved public transit service.

The Central Waterfront as a Corridor

The Central Waterfront is also a strategic corridor for moving people and goods to, from, and through the Central Area. Road, rail, marine, and air transportation facilities are all part of the Central Waterfront's role as corridor.

The major rail facility is the Lakeshore Corridor, which stretches across the Central Waterfront, and is joined by lines from the Don River corridor in the east and the northwest corridor in the west. GO Transit provides rail commuter services on seven radial lines that converge along these corridors to arrive at Union Station, while VIA provides rail service to other cities and provinces.

A friendly street, Markham Street, Toronto

A rail freight spur runs south from the rail corridor to the East Bayfront/Port Industrial Area, connecting there to a number of freight spurs. Most of the other rail freight lines that served industries in the Central Waterfront have followed the exodus of industrial customers.

The other significant transportation facility on the Central Waterfront is the Gardiner Expressway/Lake Shore Boulevard, which also cut across the waterfront as far east as Woodbine Avenue. This part of the waterfront is also served by arterial and local roads that form a network that is sparser south of Front Street than the more closely spaced urban streets north of it; that reflects the industrial and institutional uses that predominated south of the rail corridor during most of the past century.

The team studied the use of the corridor over the past 15 years (and, in one case, the past 30 years) by analysing traffic volumes and movements in a number of categories (truck, automobile, transit, and person), including origins and destinations. The analysis was based on data supplied by Metropolitan Toronto, the City, the Province, the TTC, and GO Transit. It included traffic counts for the peak morning hour (7:45 a.m. to 8:45 a.m.), the peak morning three-hour period (7:00 a.m. to 10:00 a.m.) and the 12-hour daily period (6:30 a.m. to 6:30 p.m.), as well as origin and destination surveys. (The team was not able to obtain comparable vehicular traffic data for the full 24-hour period.) As already mentioned, the team developed travel demand projections to the year 2021, based on population, employment, and land-use scenarios.

When combined with the land-use analysis, the traffic analysis showed clearly that the Central Waterfront is in transition, not only as a place but as a corridor. In particular, its corridor function is undergoing modal change to a degree that has hitherto escaped notice, and the projections indicate that changes are permanent and must be taken into account if the waterfront's full potential is to be achieved. The following is a description of the directions and the trends of the modal changes.

Goods Movements

Depending on the time of day, these make up between 10 and 15 per cent of the road traffic in the corridor; over the past 15 years, the number of trucks on roads in the corridor increased slightly (by three to five per cent) but there was a significant decline (by more than 70 per cent from 870 to 210 peak-hour trips) in the number of heavy trucks (those having three or more axles), which was offset by an increase of 70 to 85 per cent (from 880 to 1,630 peak-hour trips) in the number of more mobile light trucks.

Person Travel

According to the Transportation Tomorrow Survey (TTS), in 1986 in the Greater Toronto region (extended to include Hamilton-Wentworth), there were almost two million trips during the morning peak period (trips starting between 6:00 a.m. and 8:49 a.m.); some 318,000, or 16 per cent, were destined for Toronto's Central Area. Of the 318,000, approximately 36,000 were from the Central Area, 218,000 from the remainder of Metro, and the rest from regions outside Metro.

The TTS revealed that about 65 per cent of the total a.m. peak period travel in the Greater Toronto region was by private

car; 25 per cent by public transit; and the remaining 10 per cent by foot, bicycle or other means. However, of trips to the Central Area, only 36 per cent were by automobile whereas 58 per cent were by public transit, and the rest by other modes.

About 40 per cent of trips in the Central Area itself were by other modes: walking — 36 per cent; cycling — two per cent; and taxi/motorcycle — two per cent; while 34 per cent was by public transit and 26 per cent by automobile. The survey showed that walking is the most common mode for trips within the Central Area.

Using information from the Toronto Transit Commission to supplement these data, it was possible to examine trends as far back as 1960; since that time, there has been a tendency for the total person trips entering the Central Area in the a.m. peak period to increase, while the number of persons entering in automobiles has actually declined slightly.

According to Metropolitan Toronto's traffic counts, between 1975 and 1990 the number of vehicles travelling into the Central Waterfront was virtually stable in the a.m. peak hour; increased slightly in the a.m. peak period (by six per cent); and rose somewhat more in the 12-hour daily period (by 15 per cent). This suggests that the road network in the waterfront corridor has been operating at near-capacity since 1975, restricting increases in vehicular traffic during the peak periods. The more significant growth in the 12-hour vehicle traffic may reflect a spread in the a.m. and p.m. peak periods in the waterfront corridor.

There were similar traffic trends on the Gardiner Expressway/Lake Shore Boulevard facility: between 1975 and 1990, auto traffic on the Gardiner/Lakeshore grew two per cent (from 10,580 to 10,780 vehicles) in the a.m. peak hour; five per cent (from 27,500 to 28,900) in the a.m. peak three hours, and 17 per cent (from 75,200 to 87,600) in the 12-hour daytime period.

In those same years, however, auto occupancy in the a.m. peak period declined from 1.31 persons per car to 1.22: in other words, the same number of vehicles were carrying seven per cent fewer people in 1990 than they carried in 1975.

Person trips into the waterfront corridor had a very different growth pattern, growing substantially in all three periods: by 32 per cent in the a.m. peak hour, 28 per cent in the a.m. peak period, and 22 per cent in the 12-hour daytime period. These figures also show that, in contrast to the surface transit and automobile traffic trends, the concentration of total person trips into the Central Waterfront during the morning peak hour and the peak three-hour period actually increased.

With the exception of the 12-hour period, in which auto person trips grew discernibly, the growth in person trips in the 15 years under study was due mainly to growth in the number of persons carried by GO Transit commuter rail services, which increased 259 per cent (from 10,000 to 36,190) passengers in the a.m. peak three-hour period. However, between 1975 and 1990, the number of persons entering the Central Waterfront by other forms of public transit declined in all three periods. (This occurred despite an increase in the number of persons travelling by transit into the entire Central Area.)

The study team estimated that the number of persons entering the Central

The central waterfront viewed from the east

Waterfront could grow from about 46,900 in the peak hour in 1990 to between 79,200 and 111,000 in 2021 (an increase of between 69 and 137 per cent). This is a range of about 32,000 to 64,000 additional trips per hour, with the lower end corresponding to scenarios with relatively more housing in the Central Area and the higher end corresponding to scenarios with relatively less housing there.

Pedestrian and Cycle Traffic

Unfortunately, statistics on volumes of pedestrian and cycle traffic in the Central Waterfront and adjacent areas are not collected in as much detail as those for vehicular travel by road and transit. However, the 1986 Transportation Tomorrow Study revealed that, during the a.m. peak three hours, about 12,600 or 36 per cent of total person trips made entirely within the Central Area were pedestrian trips. This was the most-used method of travel for trips within the Central Area, more than the number of transit trips within the area, and almost half again as high as the number of auto trips. There were only 870 peak-period cycle trips, about two per cent of the total.

The Diminishing Role of the Gardiner

The Gardiner Expressway, designed and built in phases between the mid-1950s and the mid-'60s in what was then a largely industrial area, serves a dual function: it is an efficient route for moving goods, in particular by heavy trucks going between the Port area, industrial sections of southern Etobicoke, and other industrial parts of the Central Area; and it offers a radial route for truck and automobile traffic entering the

CARS AND OUR QUALITY OF LIFE

At about the time the first automobiles appeared, the horse-and-buggy industry confidently predicted that their number would be limited by the chauffeurs who could be trained to drive them. How right they were: today hundreds of millions of drivers around the world sit behind the wheels of 400 million cars, an eight-fold increase since 1950.

This tremendous growth reflects the obvious improvements cars have made to the quality of people's lives. They offer convenience, flexibility, comfort, privacy, speed, and independence. They have altered our very perceptions of time and space: we speak not of the distance to another place, but of the time it takes to arrive there by car. We think of places being nearby that, a century ago, involved arduous overnight journeys. And for many people today, there are no alternative modes of transportation.

Despite these positive benefits, however, cars contribute to the deteriorating health of our planet and erode the quality of life in urban centres in many ways. They consume roads, resources, and — increasingly — the environment.

Cars are the biggest single source of the greenhouse gases that threaten global climatic patterns. Even "clean" cars produce nearly two and half kilograms of carbon dioxide for each litre (20 pounds per gallon) of gas used. Other gases released from the end of a tailpipe include nitrogen oxides, volatile organic compounds, hydrocarbons, carbon monoxide, and suspended particulates.

In addition to their greenhouse effect, these emissions contribute to acid rain, reduce crop yields, and affect human health. For example, by inhibiting the photosynthesis process, accumulations of ground-level ozone, which are produced when nitrogen oxides and hydrocarbons react in sunlight, reduce crop production. The Ontario Ministry of the Environment estimates that meeting ozone standards could increase crop production in Ontario by an average of $39 million per year (in 1986-87 dollars).

Our excessive dependence on the automobile has affected our quality of life by encouraging the separation of work, recreation, home, and shopping. "The great emancipator" has given us long commutes and daily traffic chaos, and increased stress levels. It has affected the form and structure of our cities by eating up at least a third of the land for roads, parking lots, and other elements of car infrastructure.

There is a wide range of strategies to reduce the cumulative effects of individual car use. Technical improvements such as alternative automobile fuels, and cleaner and more efficient vehicles, are among the first steps. However, to deal with such problems as congestion, we must move beyond technical solutions towards innovative transportation management policies in which cars complement other forms of transportation. Finally, distances between daily destinations must be reduced so that biking, walking, and transit are feasible and enjoyable alternatives to the car.

Sources: Carson, P. and J. Moulden. 1991. *Green is gold: business talking to business about the environmental revolution.* Toronto: Harpercollins Publishers; Pearson, R. G. and J. A. Donnan. 1989. "Impact of ozone exposure on vegetation in Ontario". In *Proceedings environmental research: 1989 technology transfer conference.* Toronto: Ontario. Ministry of the Environment; Renner, M. 1988. *Rethinking the role of the automobile.* Washington, D.C.: Worldwatch Institute; Schaeffer, R. 1990. "Car sick". *Greenpeace* 14.

Central Area from west and east, as well as being a through connection to and from the lower end of the Don Valley Parkway. Much of the expressway is elevated; in the central and eastern portions, Lake Shore Boulevard runs underneath it at grade.

A 1986 survey of Gardiner Expressway users, carried out by the City of Toronto, showed that about 22 per cent of those coming from the west between 7:00 a.m. and 9:00 a.m., and 39 per cent of a much smaller volume from the east (about 1,100 to 1,200 vehicles per hour in each direction), were through traffic.

In terms of truck traffic, totals for both light and heavy trucks on the Gardiner/Lakeshore facility grew by eight to 12 per cent in the 15 years from 1975 to 1990. Specific heavy/light truck counts for the Gardiner/Lakeshore were not available, but the trends are probably consistent with those for the Central Waterfront mentioned earlier: heavy truck traffic declined while light truck traffic increased.

Based on the downward trend in heavy truck traffic in the Central Waterfront as a whole, it can be argued that one of the original purposes of the Gardiner Expressway — carrying heavy truck traffic in a largely industrial area — has been significantly decreased because of economic and land-use changes described earlier.

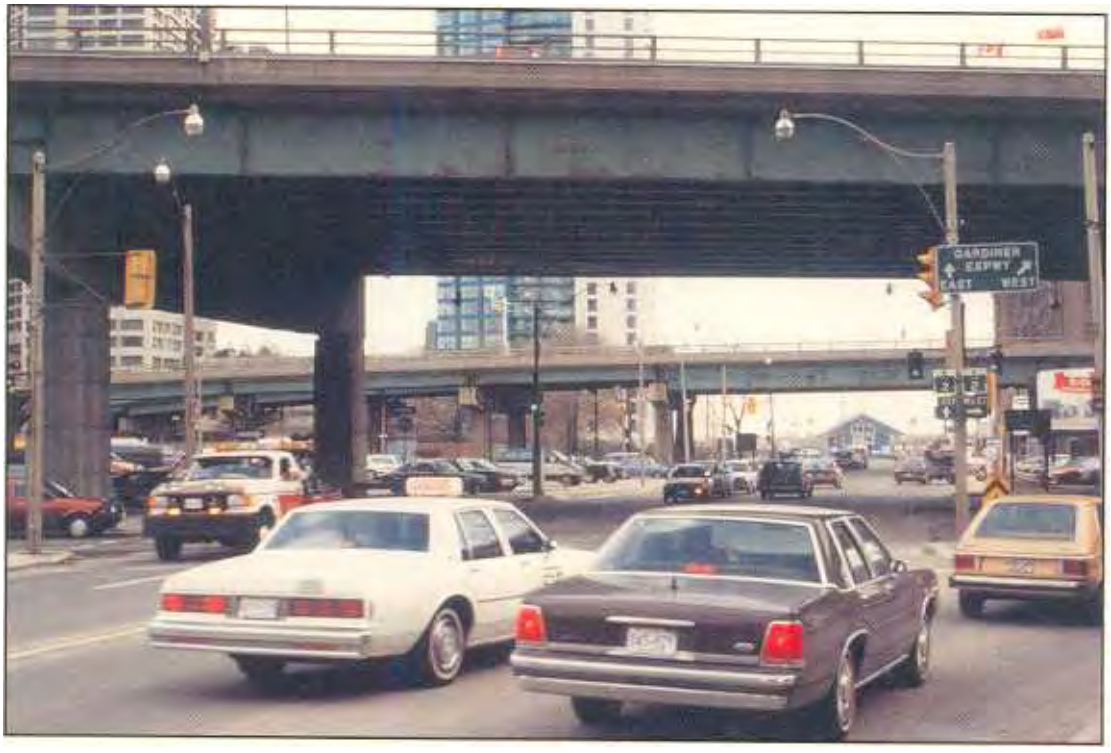
The other major purpose of the expressway — as a radial commuter route for trips from outside Metro Toronto and within Metro to the Central Area — has continued, but is declining, relatively and absolutely. Its role as a commuter route has diminished compared to that of its major competitor, GO Transit. While the number of a.m. peak-hour person trips to the Central Area, using the Gardiner Expressway, declined from about 10,500 to 8,000 between 1975 and 1990, the number carried by GO Transit increased from about 6,800 to about 21,600, and in 1991 increased further to about 26,000.

In relative terms, the proportion of total person trips carried by the Gardiner Expressway to the Central Area declined between 1975 and 1990: from 8.4 per cent to 5.4 per cent of the total during the a.m. peak hour; from 10.4 per cent to 6.9 per cent during the a.m. peak three hours; and from 13 per cent to 10 per cent of the total during the 12 hours between 6:30 a.m. and 6:30 p.m.

In absolute terms, reflecting the reduction in average vehicle occupancy, the number of persons carried by auto on the expressway also declined in the same period: by 24 per cent in the a.m. peak hour; by 21 per cent in the peak three hours; and by four per cent in the 12 hours from 6:30 a.m. to 6:30 p.m.

Approximately one-third of commuting trips crossing the Metro boundary are destined for the Central Area, with the rest going elsewhere in Metropolitan Toronto. In particular, there is strong pressure for automobile commuting to the Central Area, from Peel and Halton, with less pressure from Durham in the east; these trips rely heavily on the Queen Elizabeth Way/Gardiner Expressway from the west and the Don Valley Parkway from the east and northeast. GO Transit serves the same commuter market and has captured an increasing share of it as rail service improved while roads became increasingly congested.

In summary: while the Gardiner Expressway continues to be used as a through route, its role as a heavy truck carrier and a commuter route is declining in both relative and absolute terms, as the result of a



Barriers to the waterfront

variety of factors. Among the most basic are economic forces and land-use changes that encouraged heavy industry to move to the suburbs and the resultant decline in heavy truck trips on the Gardiner. Furthermore, car occupancy levels have declined; increasingly, peak-period operations are limited by the expressway's capacity; and GO Transit patronage has expanded substantially.

While there has been growing pressure to use the expressway as a commuting route and for light trucks serving the Central Area, commuter traffic is being taken over increasingly by GO Transit and related TTC services.

In the same period, the physical and fiscal impracticality of expanding road capacity into and through the Central Area has resulted in specific City of Toronto, Metropolitan Toronto, and provincial policies to serve growth by expanding transit rather than building more roads. This is reflected in the relatively static number of auto trips entering the Central Waterfront in the a.m. peak period in the past 15 years, while the number of transit passengers (particularly of GO Transit) has increased.

Considering changes in the use made of the expressway, and recognizing that it is a barrier to the waterfront — particularly in the central section between Jarvis and Bathurst streets — this is the time to examine the continuing role and existence of that section, in the context of greater intensification and specialization of land uses in the area, parallel development of a network of green open spaces and links, and the need to improve the environment.

The ongoing importance of the expressway for moving persons and goods must be recognized before any decision can be made on whether the central section could be removed and, if so, under what

circumstances. Even if discretionary use of autos in the area were to decline in line with the reduced road capacity, and if congestion levels remained stable, removing the central link in the limited-access highway system in and through the Central Area would further delay east-west vehicular trips — particularly by commercial truck, essential auto, and emergency vehicle — because speed limits would be reduced from 80 kilometres per hour to 50 or 60 kilometres per hour. In addition, the greater volume of east-west vehicular traffic on at-grade roads would create more conflict with north-south movements of pedestrians, cyclists, and vehicles.

The Transportation Challenge

Given the *Toronto Central Waterfront Transportation Corridor Study*'s conclusion that the role of the Gardiner Expressway as a carrier of heavy trucks and as a commuter route is declining in both relative and absolute terms, the question — whether to relocate and redesign the Gardiner and Lake Shore Boulevard — is of much less consequence in transportation planning than was previously imagined. It is overshadowed by a much greater concern: if the Gardiner's role is diminishing, if the roadway obstructs opportunities, and if the road system cannot be expanded by very much, how will it be possible to sustain the movement and circulation necessary to maintain the quality of life and economic prosperity of the region?

To explore these questions, the team carried out two major planning exercises: first to explore, cost, and evaluate various concepts for modifying the Gardiner Expressway/Lake Shore Boulevard facility and, second, to explore various plans and proposals for expanding the transit system.

Finding a Solution for the Gardiner Expressway and Lake Shore Boulevard

The team assembled, designed, and mapped a number of ideas for modifying the Gardiner Expressway and Lake Shore Boulevard. To do so, they compared each idea with the existing road structure and system, using the implications of four elements as basic criteria:

- the environment;
- land-use and urban design;
- transportation; and
- economy/finances.

Initially, there were nine different concepts, three each of three "families" (i.e., ways of retaining, removing or burying the Gardiner) were evaluated. Of the nine, two "best options" emerged: removing the central section of the elevated expressway and replacing it with surface roads, or retaining the expressway but relocating Lake Shore Boulevard and redesigning surface roads.

The team concluded that the waterfront would be most substantially improved as a place if the central section were removed and replaced by normal urban, grade-related streets. However, members were concerned that the reduced transportation service that would result might create too much stress on this important vehicular corridor, unless it were balanced by changes to land use and public transit.

The evaluation showed the strengths and weaknesses of each concept: for example, those that favoured land use had transportation drawbacks, while those that favoured road transportation would impede land-use and environmental objectives. It

became clear that to maintain an appropriate balance between place and corridor, one that would meet place-making and environmental objectives while sustaining the diminished but still important role of the Gardiner/Lakeshore Corridor and a connected road system, a generic approach — retaining the entire Gardiner, removing it or burying it entirely — would not work.

The evaluation stimulated the team to find a solution that would maximize benefits for the environment, land use, and transportation in a balanced and economic way. This led it to consider a mixed concept in which the Gardiner is treated differently along its different sections, according to localized land uses and environment. For example: the Gardiner could remain elevated in some parts, be relocated in others, and be buried in still others.

This alternative would make it possible to relocate and redesign the Gardiner and Lakeshore appropriately, taking into account the various places through which they pass; it has another benefit: it would be possible to make changes in phases, as part of an integrated plan that would include more housing in the Central Waterfront and an expanded transit system.

Transit as the Workhorse of Commuter Travel

The transportation carrying capacity of the Gardiner is a diminishing asset which must be balanced against the increasingly valuable asset of the waterfront as a a more habitable and economically productive place.

Given that the Gardiner carries only about seven per cent of the Central Area's inbound morning peak-period trips, if it were removed the rest of the transportation system would be sufficiently flexible to absorb it — and does occasionally when maintenance closes the road system. It would have to absorb even fewer trips if additional surface roads and connections were created. Whether or not that happens, the most important point is that retaining the Gardiner at its current capacity will not begin to deal with the real transportation problem.

The fact is that travel to and through the Central Waterfront will grow and the number of residents there will double in the next two or three decades. These will have to be accommodated when governments do not have the resources to expand the road system very greatly. Therefore, the choice is not between one road system or another, but whether to take steps now to improve transit service so that people can continue to have convenient access to the city centre.

Table 10.1 shows why: choosing a single point on an expressway and in ideal conditions for each mode, one lane of automobiles on the expressway, with the current average occupancy of 1.2 people each, can carry only seven per cent of the passengers

Table 10.1 Capacity of various transportation modes

Transport mode	Persons carried past a point in one hour	Efficiency in relation to subway
Autos on one lane of the expressway		
1.2 occupants per auto	2,400	7%
4 occupants per auto	8,000	23%
Streetcar or bus on own right of way	15,000	43%
Commuter rail (GO Rail)	25,000	71%
Subway rail	35,000	100%

Source: IBI Group.

that can be accommodated on the Toronto subway. When the ratio of travellers to roads favoured travellers, at most this was a statistic of academic interest; in current circumstances, as more and more roads become chronically congested, it takes on greater and greater practical importance: a minor increase in transit capacity can numerically balance a major reduction in road capacity.

It is a matter of great good fortune that Toronto's rail corridors parallel the expressways for so much of their length, making it practical to convert commuters from road to rail. That has been evident over the years as GO Transit passenger volumes have continued to grow, and was most noticeable in September 1991, when GO Transit volumes increased during a TTC strike. Commuter travel is the most easily converted to transit; moreover, the majority of those using the Gardiner for peak-period travel are long-distance commuters, the market GO Transit is specifically designed to serve.

Of course, efficiency is not the only criterion for choosing a mode of access: people may choose on grounds of convenience, flexibility, privacy, and time, including waiting time. The ability to carry goods, and, more recently, the opportunity to conduct business by phone also make car travel attractive.

By contrast, a rail system is scheduled, and can neither pick up nor deliver from communities already designed to facilitate car travel; moreover, trains are often crowded. But a more extensive and better integrated transit system can minimize these disadvantages or at least offer as good or better convenience as congested highways. Flexibility can be improved if settlements are designed to encourage walking and transit — which can be done by placing sufficient quantities of housing and workplaces within walking distances of each other and of transit stops.

It is clear that our economic growth will depend substantially on our ability to develop a transportation system that takes into account the link between changes to the economic base of the waterfront/Central Area, and the constrictions imposed by the Gardiner's diminishing capability to serve those parts of the city. Projected travel demand needed to ensure an economically healthy region leaves no choice about drastically increasing the extent and amenity of the transit system: it must be done if the standard of liveability of the Central Waterfront, and of the city core and region as a whole, are to be maintained and improved. The choice is not whether to act, but whether to take steps now or simply react to problems that, inevitably, will have to be faced. Obviously the former is by far the better choice.

Because we will have to rely increasingly on transit in the future, we should plan now to provide sufficient capacity to absorb the traffic that results from stabilizing or reducing road capacity when redesigning the Central Waterfront road network.

A Plan for Transit

The last truly bold transportation initiatives in Toronto go back a generation or more, when the subways, commuter rail, and expressway systems were created. While the subway system and expanded commuter rail service have been fine-tuned in recent years, it is clear that the latter should continue to be expanded rapidly and that other bold initiatives are necessary to meet traffic needs in the core.

Therefore, the study team developed a conceptual plan for an expanded transit system to serve the Central Waterfront,

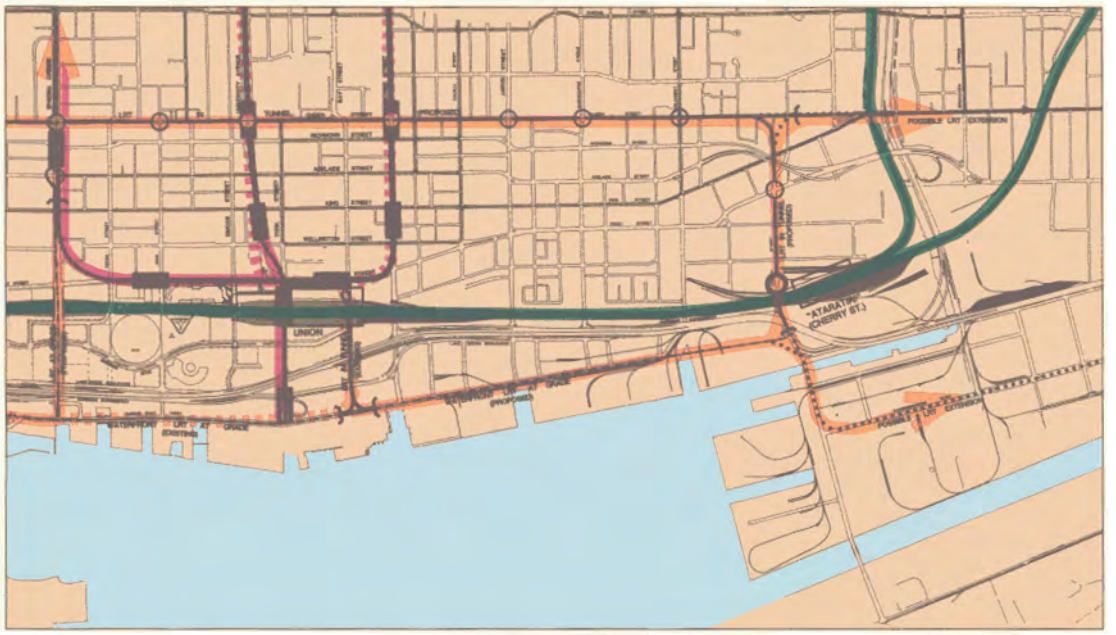
Map 10.7 Possible transit concepts

Central Area, and greater region for generations to follow, just as the bold investments made by previous generations now serve us. The plan proposes the following major improvements:

- an expanded GO service centred on Union Station, with two new shoulder stations: one in Garrison Common (Strachan Avenue) and the other in the Lower Don Lands (Cherry Street);
- an expanded Waterfront LRT, extended to Park Lawn in the west and Greenwood in the east, combined with the GO service already suggested;
- introduction of a high-quality LRT Waterfront loop system along Queen Street, Cherry Street, Queen's Quay, and Strachan Avenue;
- extension of the Spadina subway to Union Station and the University Avenue subway to the waterfront; and
- other transit service improvements, such as high-occupancy vehicles (HOV)/express bus lanes, and more efficient, higher-capacity service on the King and Queen streetcar routes, etc.

The team concluded that:

Increasingly, transit is the key for economic development in large urban regions. It is, of course, essential that local and regional road access continue to be available for both automobile and truck traffic serving local land uses, but, increasingly, the key indication of accessibility is the availability of surface and



rapid transit services, particularly in Central Areas.

There are many examples of this reliance on transit: in New York City, the World Financial Center development at Battery Park in Lower West Side Manhattan was initiated a few years after the West Side Highway collapsed, despite the fact that the road was never replaced with a limited-access facility, because the developer knew that high-capacity rapid transit services were available. Similarly, the Canary Wharf development in the London Docklands is in an area not served by limited-access roads; the developer realized that high-quality rapid transit links are essential and, therefore, indicated a willingness to consider providing significant front-end funding for such facilities. Closer to home, rapid office/commercial development has occurred in the North York City Centre and more recently in the Scarborough City Centre following the extension of rapid transit lines to each of them, linking them to the downtown and the rest of the Greater Toronto region.

The Commission believes that the Central Waterfront must be recognized and treated as a valuable place, both for its own sake and for the benefit of the city and region. Already, more pedestrians and cyclists use the waterfront in the central core, because of the SkyDome and the residential community along Queen's Quay. East-west movement is also increasing, especially along the waterfront, as the result of recreational and cultural attractions that have been developed at Harbourfront. That trend will continue — pedestrian traffic, in particular, will keep increasing — and the need will grow for improved sidewalks, more streets that are pedestrian-friendly, and laneways transecting large blocks to facilitate pedestrian and cycle movement.

In a city like Toronto, transit plays a big part in cutting down air pollution. Subways and streetcars produce up to 99% less hydrocarbons and carbon monoxide than cars per passenger mile, buses up to 90% less. Plus, a transit rider saves over 900 litres of gasoline per year. In fact, a commuter driving uses the same amount of energy in four years as a commuter riding transit consumes over their entire working lifetime of 40 years. So remember, the more you ride transit, the more you save with our Frequent Rider Plan, and the more you help the environment.

Toronto Transit Commission. [1991]. *On track: the year in review.* Toronto: Toronto Transit Commission.

A Program to Integrate Environment, Place, and Corridor

The team of consultants concluded that the Central Waterfront would be improved as a place by a program including:

- a green infrastructure system of open spaces, parks, and links;
- improvements to the quality of the natural environment;
- a balanced and diverse mix of residential, employment, and recreational uses;
- pedestrian-friendly built form and streetscape designs that are more liveable, workable, and accessible, and that have legible public and private spaces;
- greatly improved public transit at both the regional and local scales;
- an interconnected and balanced road network;
- enhanced opportunities for economic competitiveness and renewal; and
- infrastructure capital and operating costs that are feasible because of the economic activity they create.

An important part of that vision is a redesigned and relocated Gardiner Expressway/Lake Shore Boulevard that strengthens links between the city and its renewed Central Waterfront and improves the area's quality as a place; at the same time, it will maintain and even improve its essential function as a corridor serving transit, rail and air passengers, auto travellers, truck, rail, and marine freight movements, pedestrians, and cyclists.

Stage I

The team proposed Stage I of this program designed to achieve the improved links; in its words:

> The study set out a range of transportation options, identified the environmental, land-use, urban design, and economic opportunities and concepts they help make possible, and assessed the required financial resources and related risks involved; it proposed a Stage I program aimed at achieving those opportunities in a cost-effective manner. The combined land-use transit system, road network, and environmental concept which could subsequently evolve would be compatible with various treatments of the Gardiner/Lakeshore facility, and the anticipated consequences of these were described. The Stage I program is designed to leave open the more promising options for the central section of the Gardiner/Lakeshore facility.

Map 10.8 Emerging green infrastructure in the Central Waterfront

Implementation of the Stage I program will provide a considerably firmer basis than now exists for deciding on the most appropriate option, while moving purposefully to create a better place and corridor in the Central Waterfront.

Stage I programs and priorities are:

1. Green Infrastructure

The basic "green infrastructure" of parks, open spaces, and green links among them, plus steps to improve air, water, and soil quality and other environmental conditions, should be built as early as possible to begin the process of re-creating the Central Waterfront as a better place that, while part of the city, is connected to the water and to natural areas. These environmental programs should be implemented before or concurrently with the housing developments, in order to help attract residents to the area while ensuring that the open space system is completely achieved and protected.

2. Central Waterfront Housing and Economic Development

Another priority is a program for the delivery of as many as 3,000-4,000 housing units per year in the Central Area for the next 30 years, starting with appropriate designation of the lands.

Substantially increased Central Waterfront housing is essential to improve the quality of the Central Waterfront as a place, to moderate the growth of long commuter trips from suburban areas to the Central Area, and to help achieve an improved structure and quality of development throughout the region. At the same time, continuing development of employment and recreational uses is vitally important to maintain economic impetus. This includes developing the international trade centre and other economic development and tourism initiatives proposed in the Garrison Common study, establishing employment activities in the Railway Lands, and the mixed-use development

GO Transit plays an essential role in linking the centre and region

in other parts of the Central Waterfront described earlier.

3. GO Transit Expansion
Expansion of GO Transit service in the Lakeshore and Milton corridors and increases in Union Station's capacity, along with the Garrison Common shoulder station and related rail relocation, are essential to improve the relationship between the region and the centre and to serve the substantial increase in commuting and other trips to the centre that is anticipated, even if Central Area housing targets are met (and they will be much greater if the targets are not met).

4. Improved TTC Services
Significantly improved local transit is also essential to serve the residential and employment developments and circulation in the Central Waterfront; initially this can be bus services on the improved arterial road network with HOV lanes as appropriate. This would lead, over the medium term, to implementing other transit improvements such as a downtown LRT loop system linking to the Garrison Common (Strachan Avenue) GO Transit station and later to a Cherry Street GO Transit station.

5. Better Road Connections
The Front Street extension is required both for local land access and to allow direct regional access from the west to the Central Area north of the rail corridor without having to pass through the south/central section of the Central Waterfront, and should be in place to

help carry traffic during the extensive construction work that will be required in the Central Waterfront.

Redesign and reconstruction of the Humber crossing bridges are required because of the deteriorating quality of the existing structures and related safety and operational imperatives.

The two continuous east-west arterial roads in the Central Waterfront, along with improved north-south streets and continuous, pedestrian-friendly sidewalks, walkways, cycle paths, and mid-block connectors, are essential to provide local access, create a legible framework, and re-establish visual and physical links between the city and its waterfront. This could include partial relocation of Lake Shore Boulevard from under the expressway, as well as related ramp changes to reduce further the barrier effects to the Gardiner/Lakeshore facility while leaving open the question of subsequently modifying the central section of that facility.

Timing and Funding

The goals of the Stage I implementation program would be to deliver the initial components of the green infrastructure and other program elements in five years. This includes: a continuous Greenway across the Central Waterfront, Roundhouse Park, etc.; 12,000-20,000 housing units in the Central Waterfront; a 50-per-cent expansion of GO Transit peak-period capacity on the key east-west lines, as well as augmented full-day service; the beginnings of improved feeder/distributor transit in the Central Waterfront, initially by means of buses using HOV lanes as appropriate; and a more continuous arterial road network for land access by trucks, autos, surface transit, pedestrians, and cyclists.

This Stage I program would be the first giant leap in rejoining the Central Waterfront to both the city and the lake, making it a much better place to be rather than just to travel through, while still enabling it to fulfil its important function as a corridor. Additional facilities, such as the LRT loop system or its equivalent, would be in final design or possibly under construction.

It should be noted that the infrastructure elements listed above either have been included in municipal and/or provincial budgets, are currently being considered, or are part of the normal development process. The important point about this program is that it is based on an integrated concept of the Central Waterfront as a better place and corridor and moves purposefully to achieve that concept, building largely on projects and investments already proposed by individual governments and agencies, selected and modified in light of the overall concept.

Finding the key to sustainable, healthy urban places is essential; indeed it is probable that the ultimate success or failure of society as a whole to achieve sustainability will be determined by our cities.

Alberta. Urban Environment Subcommittee. 1988. *Environment by design: the urban place in Alberta.* N. p.: Environmental Council of Alberta.

STAGE II

While implementation of Stage I is under way, planners should prepare the second stage of the program. Elements of the second stage could include:

- continuing implementation of the green infrastructure system;
- further residential, mixed-use, commercial, industrial, and recreational development;
- further expansion of GO Transit services;
- construction of the LRT waterfront loop and the Cherry Street GO station; and
- redesign and relocation of the Gardiner Expressway and Lake Shore Boulevard consistent with plans integrating environment, land-use, and transportation on the waterfront.

Major public policy issues are at stake and decisions made (or not made) in the next few years will greatly affect the quality of Toronto's Central Waterfront and adjacent areas for two generations at least. It is clear that a new process is needed for planning and reaching necessary decisions and agreements, and for creating programs that will help achieve the bold plan within our grasp.

Within the context of integrating environmental, land-use, transportation, and economic issues across the Central Waterfront as a whole, it is useful to consider the various places that comprise the Central Waterfront, starting with its western gateway, Humber Bay. Projects, in addition to those already described in the Stage I program, are identified for each part of the water-front, to contribute to the critical mass of productive investment needed to help stimulate the region's economic recovery.

RECOMMENDATIONS

65. The Royal Commission recommends that the Province, Metropolitan Toronto, the City of Toronto, the City of Etobicoke, the Government of Canada, appropriate special purpose bodies, and the private sector negotiate a Waterfront Partnership Agreement or agreements to implement Stage I of the program to integrate environment, land use, and transportation in the Central Waterfront.

66. The Commission further recommends that, to expedite the implementation of Stage I, processes be designed to integrate approvals, consolidate capital budgets, and achieve concurrent decision-making by all levels and agencies of government.

67. Concurrent with implementation of Stage I, the parties should prepare a plan for Stage II of the program.

68. The City of Etobicoke, City of Toronto, Metropolitan Toronto, and the Metropolitan Toronto and Region Conservation Authority should participate in preparing the proposed shoreline regeneration plan, including the waterfront greenway and trail, and ensure that any other plans for waterfront areas are reviewed and/or developed in this context.

HUMBER BAY

The views across Humber Bay, particularly the vista of Toronto's skyline, are among the most striking in the region. The sense of place around the bay itself depends strongly on natural and visual attributes: the river and its banks, the curve and slope of the shoreline, the lake and distant perspectives. Collectively, these convey a sense of arrival and departure, an impression of natural beauty, and a vision of human settlement at the water's edge. Since the beginning, these three forces — nature, transportation, and settlement — have determined the use, development, and physical form of historic Humber Bay.

Its future will be determined, to a substantial degree, by these same forces, as they bear on the basic issues that currently characterize the area; these include the following:

- Humber Bay has a natural heritage in urgent need of remediation. (This issue is dealt with in more detail in the Environmental Conditions section of this chapter and in chapters 3 and 9 of this report.)
- Humber Bay's historic role as a place of human settlement for industry, recreation, and pleasure has been diminished and fragmented and must be revitalized.
- Humber Bay is a significant regional transportation corridor currently in need of change.
- Humber Bay has a trademark role as gateway to the central city, with a magnificent vista of the bay that must be appreciated and protected.

The mouth of the Humber had been a gateway at the beginning or end of ancient trails for aboriginal peoples long before the first European, Étienne Brûlé, arrived there in 1615. He had travelled south from Georgian Bay via the famous "passage de Toronto", along the banks of the Humber River. He and those who followed him saw the mouth of the Humber, and its access to Lake Ontario, as a crucial element in the European quest for riches from trade, saving souls, and strengthening (French and, later, English) notions of Empire.

More than 325 years after Brûlé — and after a mind-boggling sea-change in technology, culture, and settlement — that

The mouth of the Humber River and the shoreline to either side of it have long occupied a crucial position in the history of the development of Toronto. As a place in the wilderness, on the edge of the City or within the metropolis, the growth and physical form of the Humber Valley/High Park/Western Beaches Corridor has been predominantly influenced by the tension which has resulted from its concurrent perception as both a place to travel to — whether campground, trading station, pleasure ground or park — and a place to travel through — whether by canoe, foot, horseback, stagecoach, train, streetcar, automobile or bicycle.

Garwood-Jones and Van Nostrand Architects Inc., Gerrard and Mackars Landscape Architects Inc., and B-A Consulting Group Ltd. 1991. *The Humber River/High Park/Western Beaches civic design study.* Toronto: Toronto (Ont.). Task Force on the Gardiner/Lake Shore Corridor.

Humber Bay, looking east from the Etobicoke waterfront to downtown Toronto

same sense of gateway and vista was captured by the remarkable planning and design of the Queen Elizabeth Highway.

The Queen Elizabeth Way was North America's first divided highway, begun in 1931 as a make-work project in a rapidly deepening Depression. In 1934, Tom McQuesten, the new provincial Minister of Public Works, his deputy, and the chief engineer, both named Smith, were joined in their determination to make the new road a thing of beauty, as well as an engineering masterpiece. A lawyer, McQuesten was known as the "artist-builder": he left his imprint on the Niagara Parks system, the Royal Botanical Gardens, the Peace and Rainbow bridges, and the Niagara Parkway. He and the Smiths conceived the QEW as a scenic parkway and public motorway with a wide planted median, limited access, cloverleaf interchanges, lighting, and landscaping. They hired sculptors and landscape architects as well as engineers; bridges were embellished, views were preserved and enhanced. What it meant to the generations who used it has been eloquently recollected by Robert Stamp (1987), who was a boy at the time, in his book *The Queen Elizabeth Way: Canada's First Superhighway*:

> We rolled over those magnificent bridges at Bronte Creek, Sixteen Mile Creek, and the Credit River. We passed straight through the Highway 10 intersection at Port Credit, thanks to that marvelous 1930s contribution to highway technology — the cloverleaf interchange.
>
> Dusk might begin to fall as we neared the end of our journey. Car lights and roadside lights were turned on. The divided highway seemed every bit as safe in the dark as it did in broad daylight. Mom and Dad still referred to Highway 27 as Brown's Line. That intersection marked the beginning of

suburban Toronto with its small factories and industrial buildings hugging the sides of the road. Brightly-lit signs proclaimed Toronto's contribution to my childhood world: Lipton Tea, G. H. Wood: Sanitation for the Nation. All good things came from Toronto.

Then the Lion Monument loomed up in the median ahead of us. Hello Lucky Lion! Let the marble columns of Union Station welcome others; the QEW's stone lion was my favourite introduction to the city.

Finally, we swooped over the Humber Bridge, marked the Palace Pier on our right and caught a glimpse of our first red and yellow streetcar on the left. Ahead lay the bright lights of Sunnyside, the Exhibition, and downtown Toronto itself. It was all made possible by the Queen Elizabeth Way.

Vistas! Compared with other major city regions, Toronto has done very little to protect its vistas. Perhaps we've simply taken them for granted or, because of jurisdictional narrowness and fragmentation, perhaps their importance has not been articulated in a way that enables public discussion and opinion to inform public policy. Certainly, as the Commission was reminded, time and time again, the importance of vistas has not been lost on people personally and emotionally as they go about their daily lives.

Humber Bay offers some of the most spectacular vistas on Toronto's waterfront — vistas that, in some cases, have been marred by thoughtless construction of infrastructure, buildings, and billboards. In other cases, as Robert Stamp says, some views have been made possible and even enhanced by road and rail travel.

Humber Bay has always been a transportation corridor. Eric Arthur (1986), in his landmark book, *Toronto, No Mean City* (as updated by Stephen Otto) reminds us that, "as we travel at speed over the Gardiner Expressway and the Don Valley, we are likely to forget that we are riding on the ancient "road system of the Indian, the coureur de bois and the traders."

In 1750, the first "Lakeshore Road" was cut out from the "beaten trails" to connect Fort Rouillé (near the present site of the CNE Bandshell) to Fort Toronto on the east bank at the mouth of the Humber; between 1798 and 1804, it was improved and became a public road with a ferry across the Humber in 1802 and a bridge in 1809. A stagecoach from York to Niagara was established in 1825.

Vistas! Compared with other major city regions, Toronto has done very little to protect its vistas.

In 1850, at the dawn of the great railway boom, Lakeshore Road, along with other regional roads in the Toronto district, was sold to private interests as a toll road. During the next 40 years, as the railroads transformed the new industrial city, roads fell into disrepair as the result of neglect, scandal, and recurring corruption. In 1890,

Lakeshore Road was turned over to the York County Council, but remained in relative disrepair until 1914-1916 when the new, provincially established Toronto-Hamilton Highway Commission virtually rebuilt the old road and paved it as Ontario's first motor traffic highway. It was 56 kilometres (35 miles) long and 5.5 metres (18 feet) wide. The road became the basis for a new industry and new development as motels and automobile-oriented restaurants sprung up along its route (particularly in the area close to the west bank of the Humber River), and the number of cars increased from 25 to 500 per day. In 1927, the road was widened to 26 metres (86 feet).

Meanwhile, the new magical world of electricity had spawned the electric streetcar, which was previewed at the Toronto Exhibition in 1883. In November 1890, the Toronto and Mimico Electric Railway and Light Co. was formed to build and operate a street railway on Lakeshore Road and to sell electric power to people along its route. By July 1893, the Toronto Railway Company had taken over operations and extended the line from the Humber River to Mimico Creek and, the following year, as far as Long Branch and, later, Port Credit. The Long Branch service to Brown's Line continues to this day.

By 1894, the last horse-drawn streetcar had disappeared as new electric "radial" lines "radiated" out from the burgeoning City of Toronto. In 1891, the very ambitious Belt Line Railway Company line was established and opened to passenger traffic; it consisted of two loops, one for the Humber Valley and the other for the Don Valley, tied together by a line along the waterfront. In time, the company died, but parts of the Belt Line remained a part of the transportation system for more than 30 years. In 1921, the public system was reorganized as the Toronto Transportation Commission; in 1953, with the appearance of the new Metropolitan Government, the TTC became the Toronto Transit Commission, with exclusive power to provide public passenger transportation in the metropolitan area, "other than steam railways and taxis".

Throughout the 19th century and the early part of the 20th, on both sides of the river, Humber Bay filled up with people in new settlements, villages, towns, and in special places for recreation: parks, pleasures, and public amenities.

Fort Toronto and Fort Rouillé had not survived the fall of New France in 1759. Following the Toronto Purchase of aboriginal lands in 1787, Indian communities began to shrink and withdraw in the face of British expansion of the Town of York in 1793. By 1797, the new town had already expanded west along the waterfront to Bathurst Street.

In 1787, Jean Baptiste Rousseau had established a small farm and orchard on the east side of the Humber in present-day Swansea. Colonel Samuel Bois Smith came to Etobicoke in 1795 and led the way for new immigrants from the Napoleonic Wars and for Late Loyalists, who began to clear the land, construct the mills, and establish the farms of Etobicoke. In 1837, John Gardhome and his remarkable family came to homestead. They would be farmers, livestock breeders, politicians, teachers, and public servants for more than a century: in fact, in 1953 the first employee of the newly established Metropolitan Government was its Clerk, Wilbert Gardhome.

In 1847-1848, the "birth of municipal government in Etobicoke" took place at Montgomery's Tavern on Dundas Street West. John Howard built Colborne Lodge

at High Park in 1837 and, almost 40 years later, gave his 66 hectares (165 acres) to the City as a public park. He persuaded his friend, John Ellis, to buy the adjoining land, including Grenadier Pond, and build his house overlooking both the pond and the lake. In 1858, with a population of about 3,000 people, the area was given a post office, called "Mimico", leaving the original "Mimico" settlement on Dundas to be renamed as "Islington".

By 1870, with the flow of the Etobicoke River diminishing so much that it could no longer power the mill wheels, steam had become the power source of choice. Moreover, at a time when there were few industries in Etobicoke, Humber Bay boasted three brickyards — Butwell, Price, and Maloney — which were located in a triangle south from Queen Street to Lakeshore, east of Salisbury Avenue (which later became Park Lawn).

In the 1870s, the little settlement at Humber Bay, just west of the Humber River near the lakeshore, became a "lovely resort for holiday-makers from Toronto" — and it remained that way until World War I. As Esther Hayes (1974) wrote in her book *Etobicoke from Furrow to Borough*:

> They came in crowds to dine and dance, to participate in games and sports, to picnic and to swim and fish or just paddle a canoe on the river. Starting from May 24, Queen Victoria's Birthday, an excursion steamer made scheduled trips daily from Toronto to the old wharf at the mouth of the Humber.

In winter, hockey, skating, and ice-boating became popular pastimes. Three hotels — the Royal Oak; the Nurse's Hotel, run by Charles Nurse; and Wimbleton House, run by John Duck — catered to the pleasures and needs of visitors. John Duck maintained a "menagerie", where he kept bears, deer, wildcats, mink, and other animals which, increasingly, were removed from human experience. The lower Humber River also became renowned for its market gardens; people crossed the river regularly to buy fresh produce.

In the latter part of the century, the City of Toronto expanded rapidly to the west; from about the 1850s, the area west of Dufferin and the Garrison Reserve to High Park and north of the lake, was a prestigious rural retreat. By the 1880s, Parkdale had become a "pre-eminent village of the Dominion". It became an independent municipality in 1879 and a decade-long debate began on whether it should remain separate or join the expanding City. The fight was between those who supported "home rule for Parkdale" and those who marched under the banner "Economy, Union, and Progress" and supported annexation. Major John Carlaw, a strong advocate of keeping Parkdale out of Toronto's grasp, warned that annexation would mean that "our waterfront, the glory of our town, would be polluted, the water supply made inferior, and the level of taxes would go up". He was not heeded and in 1889 the little Town of Parkdale, with its 225 hectares (557 acres) and 5,651 citizens, joined Toronto as the new St. Alban's Ward.

The Sunnyside strip was acquired in 1893 and by 1909 the City had moved its boundaries to the Humber Valley and the Village of Swansea. The Swansea Bolt Works, established in 1882 (which ultimately became the Steel Company of Canada), gave Swansea its start as a modern settlement. It built row housing for its workers, at the foot of Windermere Avenue, and

donated the site for St. Olave's Church in 1886. The name of the "Windermere" Post Office was changed to "Swansea" in 1889.

William Rennie, who built his own house on John Ellis's land, founded the Presbyterian church on Morningside Avenue and built row housing for working people in different parts of the emerging village. After the severe recession at the beginning of the century, Swansea began to grow again and, by 1907, the old golf links that had marked several earlier landscapes began to sprout new houses. Swansea remained part of York Township until 1926, when it was established as a "self-governing" village. It would not be until many years later, in 1967, that Swansea, too, became part of the City of Toronto.

In the mid-1850s, the Toronto-Humber Railway Line had been established, causing a real estate "flutter" that led to plans by the Christian Socialist Movement to build a "Model Workingmen's Village" of solid, modest homes. Because of prevailing economic conditions, the project was not completed. However, the plans were dusted off again in 1906, when the Grand Trunk Railway built a major freight yard in East Etobicoke and, thereby, changed the area forever. Developers and builders were called in to create new homes and services; streets that had "gone to pasture" were re-established and new homes built on them. In less than a decade, Mimico and New Toronto emerged from being a rural to becoming an essentially urban community.

In all of the jostle and push of expansion, particularly in the early part of the new century, it became clear that competing demands of emerging transportation technologies and the need for new places to live, work, and play, in the face of jurisdictional confusion and inertia, made it imperative to reorder things along the waterfront.

In July 1912, the newly established Board of Toronto Harbour Commissioners was authorized to create plans for the waterfront and was given substantial powers to implement them. Much of the THC's work, of course, focused on rebuilding the central and eastern harbour area, which involved substantial land reclamation, construction of wharves, and deepening of the harbour to accommodate vessels that would use the proposed new Welland Canal.

The 1912 waterfront plan was imaginative in scope, bold in design, and breathtaking in implementation. It gave coherence and balance to the claims of both corridor and place and understood the growing need for waterfront recreation.

Home Smith, a land developer and a member of the Commission from its inception (and its chair in the early 1920s) is generally credited with the 1912 waterfront plans. He certainly was no stranger to Humber Bay. In his time, he would develop some 1214 hectares (3,000 acres) of land along the banks of the Humber, including Riverside Drive, the Kingsway, Baby Point, and the Old Mill Tea Room. In 1928, to complement the CPR's new Royal York Hotel, he built St. George's Golf Course on the banks of the Humber. The THC began work in the Humber Bay area in 1917 and, within a decade, the whole area was transformed.

The plan was imaginative in scope, bold in design, and breathtaking in implementation. It gave coherence and balance to the claims of both corridor and place and understood the growing need for waterfront

recreation. It called for recreational facilities and parkland along the entire waterfront strip, from just west of Bathurst Street to the Humber River, with a six-kilometre (four-mile) long breakwall to control erosion and protect new uses.

As Mike Filey (1982) notes in his book, *I Remember Sunnyside*, by 1922 the Bathing Pavilion and Amusement Park had opened and almost 75 per cent of the Humber Bay section of the 1912 Waterfront Plan had been completed. Ultimately, the Harbour Commissioners developed 134 hectares (330 acres) — 46 hectares (113 acres) of protected waterways behind 5,482 metres (17,985 feet) of breakwall, 47 hectares (115 acres) of park, 35 hectares (86 acres) for sale or lease, and 6 hectares (16 acres) of dedicated streets. Two major thoroughfares, Lake Shore Boulevard and Lakeshore Road, were laid out along the newly filled waterfront expanse that had been created by pumping 3,058,200 cubic metres (4,000,000 cubic yards) of sandy muck from the lake bottom and distributing it along a six-kilometre (four-mile) stretch of Humber Bay's waterfront shoreline. In time, the THC would build a new ballpark, Maple Leaf Stadium (1926) at the foot of Bathurst Street, and an airport on the Toronto Islands (1939).

Sailing, rowing, and canoeing facilities were developed as old clubs, displaced by the THC from Toronto Bay because of the harbour improvements, relocated west. The Argonaut Rowing Club, the longest continuously operating rowing club in Canada, established in 1872 at the foot of George Street, and later moved to the York

Sunnyside, Easter Sunday, 1949

SUNNYSIDE: A PLAYGROUND BY THE LAKE

A thundering and thrilling roller-coaster; a luxurious merry-go-round; tantalizing Honey Dew, hot dogs, and Downyflake doughnuts; bands, dances, and boat rentals at the Palais Royale — these were just some of the attractions at Toronto's Sunnyside Bathing Pavilion and Amusement Park, situated along Lake Ontario between the Humber River and Exhibition Place.

Not long after its inception in 1922, Sunnyside became known as a "playground by the lake". Children with bathing suits and towels in hand jumped on street cars and were transported, free of charge, to Sunnyside, where they enjoyed the 91-metre (300-foot) long swimming pool, the rides, and games of skill. Excited crowds flocked to the park grounds, participated in contests, entertained themselves and each other with concerts, strolled along the boardwalk or cheered entertainers and their outrageous acts, which included, for example, a female impersonators' competition and dancing bears.

Enjoying the lake and sandy beach, Sunnyside, 1926

Fond memories of the amusement park still linger in the minds of many Torontonians. Sam Sniderman (Sam the Record Man) recalls Sunnyside as "the focal point. . . for our courting and social activities . . . our only chance for a holiday resort". Radio and television personality Elwood Glover spoke of being taken to the amusement park ". . . where the lights and crowds and noise recreated . . . all the excitement of a county fair". He also recalled ". . . a bandshell with its back to the lake, where every Sunday night a People's Credit Jewellers broadcast would take place" (Filey 1982).

Seventy years later, it is still possible to walk through Sunnyside Park. The Palais Royale and the Bathing Pavilion are still intact and in operation. However, the glorious and exciting days that marked time spent at the park can no longer be captured. Most of historic Sunnyside was destroyed after World War II to make way for the Gardiner Expressway. A unique era, and a unique part of the City, are gone.

Source: Filey M. 1982. *I remember Sunnyside: the rise and fall of a magical era.* Toronto: McClelland and Stewart.

Street pier, was relocated to the foot of Jameson Avenue (which was then still connected to the waterfront). The Toronto Sail and Canoe Club, established in 1880, was relocated to the foot of Dowling Avenue, where it joined the Boulevard Club, which had been established in 1905 as the Parkdale Canoe Club. The Palais Royale was erected in 1920 and an entire generation "swung and swayed" and "jumped and jived" to Bert Niosi and Ellis McLintock and many other Big Bands. The Sunnyside Amusement Park, officially opened on 28 June 1922, was the "poor man's Riviera" and still exerts a powerful hold on the memories of the millions who went there. Mike Filey (1982) recalls the memories of a boy growing up in Swansea:

> Sunnyside was a world just outside our neighbourhood. From our house on Ellis Avenue, you walked to the bottom of the street, passing Catfish Pond and the Camels' Hump hills on the right and Grenadier Pond and High Park on the left. Just as you came out from under the railway bridge, by the old Lake Simcoe ice-house, you could feel the charge as the village met the lake.
>
> Across the short field and a narrow Lakeshore Road we would run to get to our first goal — the boardwalk! The boardwalk was the great pathway to imagined pleasures — a kind of yellow-brick road that stretched as far as the eye could see and where you could feel the excitement as the boards warmed your feet in the summer sun.
>
> And there it was! The water, the breakwall, the colours, the people, the smells, the happy noise — the sheer energy of it all. A world of rides, Honey Dew, music and chips with vinegar and salt.

By the late '40s, it had all begun to change. In 1948, a subcommittee of City Council tabled a report calling for a 19 kilometres (12-mile) long super highway from the Humber River to Woodbine Avenue. In 1953, the newly established Council of Metropolitan Toronto approved 13 kilometres (eight miles) of it; by 1955, the Frederick G. Gardiner Expressway, Canada's first full-scale urban freeway, was under construction and, by 1957, it was in operation.

The new expressway was a matter of great civic pride and understood to be the harbinger of economic and cultural progress. It was a part of the great program of growth of the 1950s, in which the new was clearly perceived to be of greater value than the old. Building the new transportation corridor sealed the fate of an already-deteriorating Sunnyside and began to significantly alter the vision of Humber Bay that had informed the 1912 Waterfront Plan. Coherence and balance began to slip away; the sense of the area as a place or series of places connected to the waterfront, to which neighbourhoods were attached and significant numbers of people would come for pleasure and recreation, gradually diminished as, more and more, Humber Bay become a corridor through which people passed on their way to somewhere else.

The Gardiner Expressway was a part of the great program of growth of the 1950s, in which the new was clearly perceived to be of greater value than the old.

As a result of a central transportation corridor that comprises the Queensway, the railways, the Gardiner Expressway, and Lake

Today, from the regional perspective the western edge of the [Central waterfront] region is a sleeper — an area ripe for development, or possibly inappropriate development. There is an exciting opportunity and challenge for those concerned with the best use of this irreplaceable resource: the limited shoreline.

Toronto Waterfront Charrette. [1989]. *Toronto Waterfront Charrette: blueprint for the future: a report to the agencies, property owners and residents of Metropolitan Toronto.* Toronto: Toronto Waterfront Charrette. Charrette Steering Committee.

Shore Boulevard, such historic public places as the Humber Valley and High Park, and such long-established urban Toronto neighbourhoods as Parkdale and Swansea, have been further isolated from each other and from the waterfront.

In the past few years — pushed as always by the forces of new land development, changes in transportation, and concern for environmental health — there has been considerable activity in the Humber Bay area and a number of studies that will profoundly affect its future.

In Etobicoke, the City Planning Staff's work on the official planning process has been supplemented by a *Lakeshore Overview Study* undertaken by the Butler Group (1991), and by two site-specific studies of the motel strip, one done by A. J. Diamond, Donald Schmitt and Company (1991) and the other by the Kirkland Partnership (1991). The Province of Ontario has declared the motel strip to be an area of Provincial Interest under the Planning Act.

The studies, and the negotiations and official processes involving them, were dealt with in the previous chapter; it is their effect on Humber Bay that concerns us here. The various proposals and studies include perspectives on priorities for environmental remediation, shoreline management plans, protecting vistas and regional view corridors, waterfront protection techniques, building heights, open space opportunities, transportation facilities, urban design, and detailed built form requirements. When placed in the context of the ecosystem approach accepted by the Province of Ontario, they should give considerable momentum to the efforts to rehabilitate and regenerate Humber Bay.

Recently, the City of Toronto (1991) established *The Humber River/High Park/ Western Beaches Civic Design Study* to:

> examine the means of improving the western end of the Gardiner-Lakeshore Corridor extending from Roncesvalles Avenue to the Humber River . . . to see how this section of the waterfront can be improved to once again serve as a meeting place of distinction along the Greater Toronto Waterfront.

Its objectives include:

- creating a major gateway to the City at the Humber River;
- improving the open space connections between the Humber River, the Western Beaches, and High Park;
- investigating the realignment of Lake Shore Boulevard between Roncesvalles Avenue and Ellis Avenue, and of the Queensway between the South Kingsway and Ellis Avenue; and
- proposing improvements to pedestrian environments, landscapes, and streetscapes in the transportation corridor.

It recommends the following civic design strategies, which are intended to improve vehicular, bicycle, and pedestrian access to, and movement through, the Gardiner/Lakeshore Corridor:

- two new waterfront trails along the waterfront: a new pedestrian boardwalk and a new, separated bicycle path linking the City of Toronto with the City of Etobicoke;
- new pedestrian promenades along the north and/or south sides of both Lake Shore Boulevard and the Queensway;
- a direct new link between the Humber Valley trail and the new waterfront trails under the proposed new Humber bridges;
- the proposed extension of the Harbourfront LRT westwards to the Humber River along the Queensway;
- a new pedestrian and bicycle bridge from High Park, crossing the Queensway, the railway tracks, the Gardiner Expressway, and Lake Shore Boulevard, in order to provide direct access to the waterfront;
- improvements to the quality and amenity of at-grade vehicular, bicycle, and pedestrian access to the waterfront at Windermere Avenue, Ellis Avenue, Colborne Lodge Drive, and Parkside Drive; and
- a new pedestrian deck and bridge at Roncesvalles Avenue that will link it directly to the waterfront.

Civic design strategies to improve the quality and amenity of public places within the corridor include:

Transportation corridor, 1990

- providing new urban parks in the Swansea, High Park, and Parkdale portions of the corridor;
- providing a new urban design structure for the potential redevelopment of the Stelco site;
- improving the civic and physical design of the proposed new Humber bridges and their environs, in order to establish a new gateway to Toronto and Etobicoke; and
- providing a series of new waterside plazas, piers, and monuments that will reinforce significant visual axes within the corridor.

Transportation strategies proposed in support of the civic design strategies include:

- realigning Lake Shore Boulevard north, in order to provide unimpeded pedestrian waterfront access on an

additional 6.9 hectares (17 acres) of currently inaccessible parkland;

- providing improved at-grade parking facilities that will have direct access to and from Lake Shore Boulevard, for drivers visiting the Western Beaches in general, and Sunnyside Pavilion and the Palais Royale, in particular;
- providing improved pedestrian and vehicular access to the waterfront and/or Lake Shore Boulevard at Roncesvalles Avenue, Parkside Drive, Colborne Lodge Drive, Ellis Avenue, Windermere Avenue, and the South Kingsway; and
- providing improved public transit access to the corridor, along both Lake Shore Boulevard and the Queensway.

The cities of Toronto and Etobicoke have joint stewardship with Metropolitan Toronto and the Province of Ontario in determining the future of Humber Bay. If we are to seize the opportunities that now present themselves on this historic part of Toronto's waterfront, these authorities must begin to work with members of the public. Humber Bay is far too important to be severed and impaired by artificial planning jurisdictions.

Recommendation

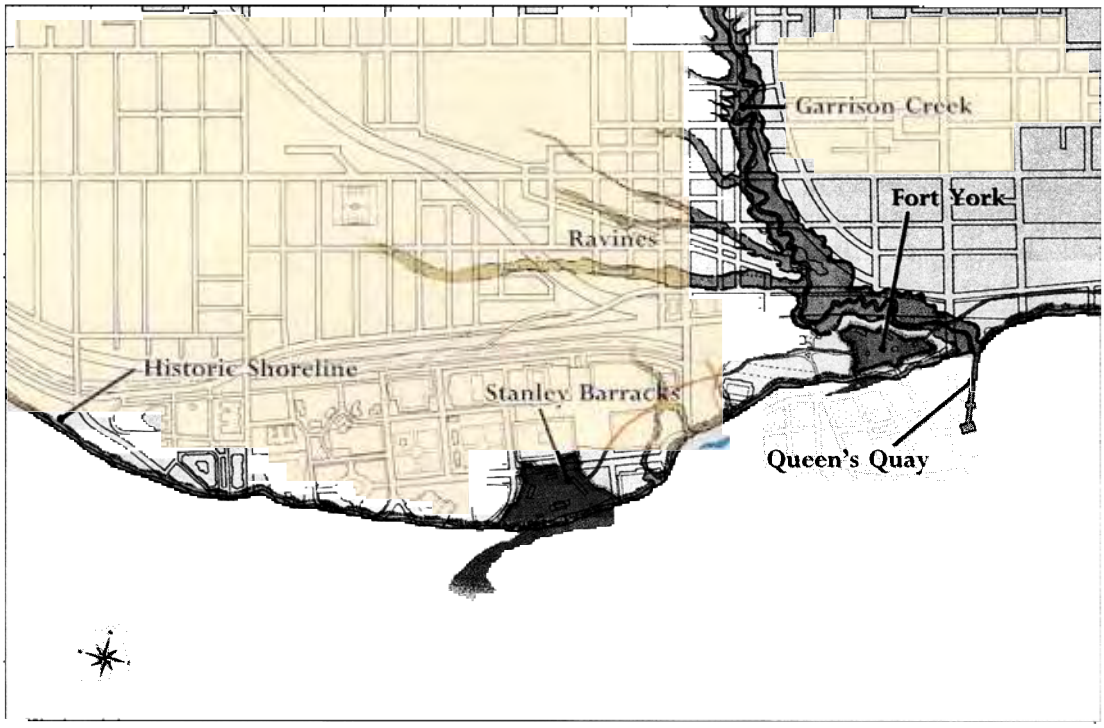
69. The Royal Commission recommends that existing and future plans and studies for Humber Bay be integrated, within the context of the program for integrating environment, land use, and transportation in the Central Waterfront described in the previous section.

Garrison Common

The portion of Toronto's waterfront we call Garrison Common is a loose cluster of places that evoke strong collective memories. It was here that the French built Fort

Aerial view of Garrison Common

Map 10.9 Historical elements



Rouillé in 1750 to support the fur trade. Forty-three years later, under the command of Governor John Graves Simcoe, the Queen's Rangers built Fort York to defend the new Town of York. At the time, the fort commanded the entrance to the harbour and was ideally situated to repel invaders. The name Garrison Common was used, at least until 1850, for the grassy area outside Fort York on which the soldiers grazed their cattle. It now refers to the area running north from the lake to Queen Street, west from Bathurst Street as far as Dufferin (and somewhat further west at its southerly end to take in all of Exhibition Place).

Other links to Canada's military history remain: the old Military Cemetery close to Fort York; the Fort York Armouries on Fleet Street, where soldiers trained in World War I, and which still houses several famous Toronto reserve regiments. There are the active facilities of HMCS York facing onto the lake and, just west of them, lovely Coronation Park, its majestic trees planted to honour the Canadian units that served in World War I.

In many ways, the area's industrial heritage is as rich as its military heritage. Canada's most successful clothing retailers had their workrooms in the area; nearby stood the warehouses of a large grocery chain. There was a brewery, and mills and factories, as well as the vast building in which Canada's first multinational company built farm equipment to be shipped worldwide.

The western end of the Garrison Common area is dominated by Exhibition Park, home to the Canadian National Exhibition, which has played a cherished

role in Torontonians' memories since 1878. The remarkable Crystal Palace was built then as exhibition space to lure the annual Agricultural Association fair to the City. Although the building is long gone, its Victorian whimsy is echoed in the Music Building, the Bandshell, and the Horticultural Building.

The use of the area for exhibitions has continued for 113 years, luring generations of residents to its star attractions: two major annual exhibitions — one marking the end of summer, the other the beginning of winter.

South of the exhibition lands stands Ontario Place, the Province's answer to Expo '67. Built on stilts and strung out across three artificial islands, its architecture was described by William Dendy and William Kilbourn (1986), writing in *Toronto Observed*, as being "designed to amuse rather than impress". For 21 years, Ontario Place has attracted visitors to tour its exhibits, marvel at its large-screen cinema, and enjoy music, ballet, and pop concerts in a lakeside setting.

But the glories of yesterday's Garrison Common have faded: many industries have departed, and much of the land left behind lies empty. The most-used public venues — Exhibition Place and Ontario Place — are dominated for most of the year by hectares of empty parking lots. Major traffic corridors bisect the area and cut off links to the lake. Fort York is isolated, hidden behind the concrete span of the Gardiner, and the area's park system is not a system at all, just a disconnected series of green spaces.

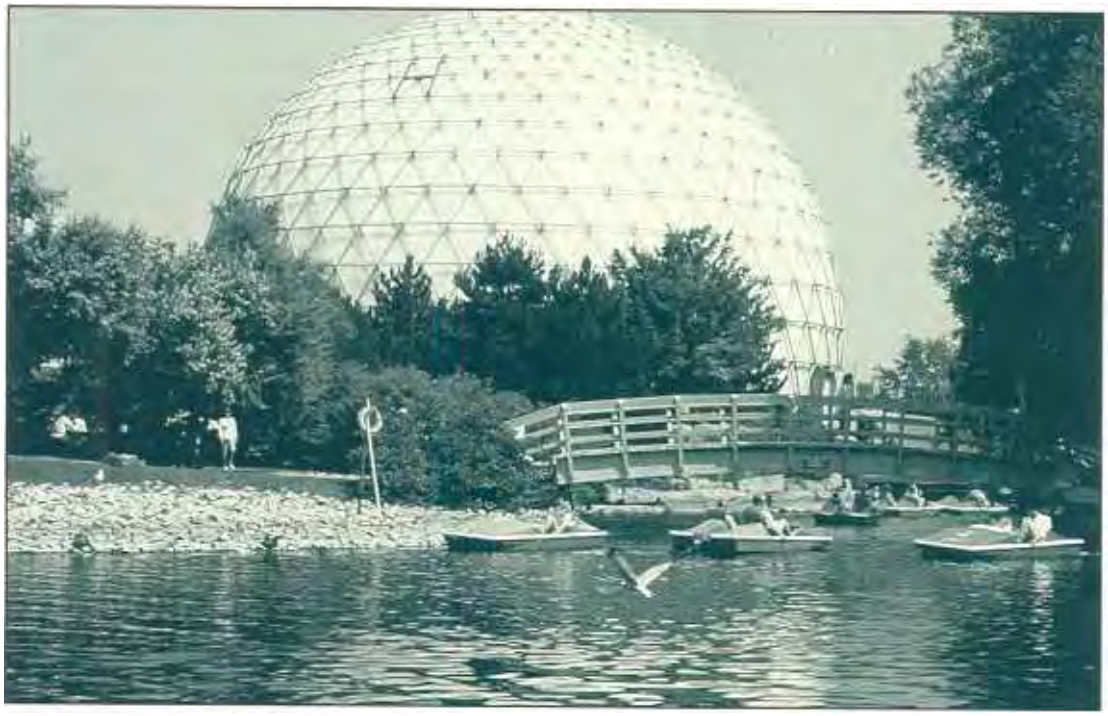
Despite the shabbiness of some of its parts, the area's strategic location, rich history, and the extent of public ownership in it, provide enormous opportunities for regeneration. The Garrison Common area is 308 hectares (760 acres) in size, an area perched on the water's edge, clearly in transition, and in need of renewal.

All four levels of government are involved in the Garrison Common area, as is the private sector. When the Royal Commission first began to examine Garrison Common, it soon became apparent that there was no co-ordination of activities: each major player had plans and projects that, for the most part, were being pursued in isolation from each other. Nor was this a new problem: for decades, attempts at establishing a new plan for the area have failed, because of three factors: jurisdictional gridlock, lack of a clear economic development strategy, and lack of a co-ordinated physical plan — in short, lack of a shared vision.

Despite the shabbiness of some of its parts, the area's strategic location, rich history, and the extent of public ownership in it, provide enormous opportunities for regeneration.

The Commission reviewed problems and opportunities in the Garrison Common area and, in its *Watershed* (1990) report, called for development of an integrated master plan. In December 1991, Ruth Grier, minister responsible for the Greater Toronto Area, formally asked the Royal Commission to do just that.

A master plan would provide co-ordinated direction for all the political, investment, and design decisions needed to regenerate Garrison Common. In the Commission's view, a co-ordinated, ecosystem-based approach was needed in order to overcome



Ontario Place

the fundamental challenges Garrison Common faces. There were six challenges:

1. To create a rich natural and human environment

Garrison Common occupies a major section of the Central Toronto Waterfront, but has a limited range of aquatic, terrestrial, and human environments. More than a third of the area's surface is covered by parking lots, roads or vacant industrial sites; 70 per cent of the land/water boundary is hard-edged. The Master Plan would ensure development and management of a complex and healthy ecosystem.

2. To make Garrison Common a vital part of the surrounding urban area

The publicly owned sections of the Garrison Common area — Exhibition Place, Ontario Place, and Fort York — are under-utilized and, in fact, the number of users has declined over the last ten years.

Much of the rest of the area — industrial and railway lands — is vacant. The Niagara and Parkdale neighbourhoods, which border the area, are cut off from Garrison Common and Lake Ontario by the transportation corridor. The Master Plan would facilitate connections between Garrison Common and the urban fabric around it, and would enhance its character as a unique place.

3. To guide major public infrastructure decisions and encourage investment in private development

Major public investments are being considered for Garrison Common, including: extending the Harbourfront LRT from Front Street; consolidating GO corridors; and making changes to the Gardiner/Lakeshore Corridor. A major new international Trade Centre is being planned for

Exhibition Place, substantial changes to the operation of Ontario Place are under way, and improvements are proposed for Fort York. The area would be dramatically transformed by collaborative planning among agencies, and by private-sector initiatives that would result from a strong vision for the area.

4. To promote the economic development of the region

Garrison Common has traditionally played a unique role in trade and tourism in the regional, provincial, and national economy. However, if Toronto and Ontario are to remain internationally competitive in these sectors, that role must be significantly reworked and expanded: trade and tourism draws are losing ground to comparable facilities in other jurisdictions. The Master Plan would focus on establishing a program of reindustrialization and strategic development of key sectors in the regional economy.

5. To enhance the attractiveness of Garrison Common

Garrison Common is unique: beautifully situated, with marvellous views of the lake, easy access to the water, and many magnificent buildings and landscaped areas; but much of its richness is neglected and undiscovered. The Master Plan would ensure that a consistently high standard of building design, composition, and landscaping is achieved, and that environmental quality becomes a goal in itself.

6. To co-ordinate long-term management of Garrison Common

The opportunity inherent in so much publicly owned land has not been realized because of the multiplicity of governments involved in the area. There is now a clear willingness to move towards a co-ordinated (and ultimately consolidated) management and development structure; the Master Plan would be the basis for doing so.

PROCESS

The *Garrison Common: Preliminary Master Plan* (Berridge Lewinberg Greenberg et al. 1991) was developed under the direction of a Steering Committee composed of representatives from all four levels of government and their respective boards and agencies. The work was carried out by a multidisciplinary group of consultants with expertise in urban planning, environmental design, transportation planning, and economic analysis. They met regularly with the Steering Committee, and held individual meetings with representatives of the area's landowners and residents.

An ecosystem approach was central to the development of the Garrison Common Master Plan. This meant that the consulting team had to look beyond immediate problems to broader issues affecting the area, and had to examine the interrelationship of the biophysical and human environments. Development of the Master Plan was based on the belief that incorporating natural systems into the planning process is essential to shaping a healthy human habitat.

In applying the ecosystem approach, a number of possible planning options were generated for Garrison Common. The net impact on and benefits for the whole system — natural, social, and economic — were evaluated for each one.

What the consultants have created is not "the final word" on Garrison Common, but a concept and a vision — a starting

place from which to build for the area's future. Certainly, the preliminary response to the release of the report bodes well for a co-operative and constructive process involving the four levels of government and their agencies. There is considerable support, not only for the general thrust and vision of the Preliminary Master Plan, but for developing partnerships amongst the parties that will allow the plan to be finalized and action to begin.

DEFINING A NEW ROLE FOR GARRISON COMMON

One of the first tasks was to analyse the current role of Garrison Common and to develop an economic development strategy for the area. The resultant strategy is based on a recognition of the area's international, regional, and local potential; it has four major components:

1. Developing tourism for both domestic and international markets

Toronto's position as one of the top 10 tourist destinations in North America should be protected by a strong tourism strategy that would include development of new attractions for the enjoyment of visitors. Other than the SkyDome, there has been no significant new facility, event or amenity developed since the early '80s. The potential exists at Garrison Common to establish new cultural, sports, and entertainment facilities and new regional attractions (such as an aquarium), and to host festivals (such as Caribana, Mariposa, and a Winter Festival).

Toronto's position as one of the top 10 tourist destinations in North America should be protected by a strong tourism strategy that would include development of new attractions for the enjoyment of visitors.

2. Expanding trade, particularly at the regional and international levels

The trade functions at Exhibition Place should be repositioned from the essentially local and regional, to become an internationally important venue. In part, this can be done by developing an internationally competitive trade and exhibition centre, which the city now lacks. The logical site is Exhibition Place.

A partnership of public- and private-sector interests are currently studying the issue intensely. The current proposal by Metropolitan Toronto involves renovating existing exhibition buildings and adding new, temporary exhibition halls for a total of approximately 139,350 square metres (1.5 million square feet) of space. Detailed planning will end in spring 1992 with the presentation of a business and design plan to Metro Toronto.

3. Reindustrializing old industrial areas, focusing on dynamic sectors of the new economy

Among the enterprises in Garrison Common that are now gone are Massey-Ferguson, Inglis, and Molson's. The loss, in just the last 10 years, of almost 2,000 jobs in the area — almost 15 per cent of total employment — leaves large and well-located tracts of land that provide a strong opportunity for Toronto's reindustrialization. They should be used as a resource on which new and leading-edge industry can be developed, encompassing the manufacturing, design, trading, and service sectors.

Arts, Crafts and Hobbies Building, Exhibition Place

4. Developing communities by expanding existing, and creating new, residential neighbourhoods

There are significant opportunities in Garrison Common to create new residential communities, and to preserve and expand existing residential neighbourhoods. The Bathurst-Spadina neighbourhood section of the Railway Lands will reach as far west as Bathurst Street and offers the potential of expanding them westward into the Fleet Street lands. North of the track corridor, the basic street and open space pattern of the Niagara neighbourhood can also be extended west towards Strachan Avenue, using available public or vacant industrial land.

ENVIRONMENT

The condition of the aquatic environment along the waterfront is poor, and as indicated previously, a Remedial Action Plan is being developed in order to restore water quality. In Garrison Common, as elsewhere along the Central Waterfront, water quality and aquatic habitat are degraded: the lake water and bottom sediments are contaminated with nutrients, heavy metals, and organic chemicals. The area lacks fish habitat areas for spawning and feeding, although there is the potential for improving habitat within the breakwalls and in the Ontario Place lagoons. Poor connections between terrestrial habitats and the limited diversity of plant communities have resulted in sterile

landscapes with limited ability to support wildlife and birds, and lacking in micro-climate protection and visual interest for people.

The transportation corridors, areas created by lakefill, and former industrial lands may have contaminated soils. Large areas of surface parking create problems with blowing dust, and traffic in the transportation corridor is a significant source of the area's air pollution.

Proposals for regenerating the natural environment in Garrison Common include strategies for improving water quality and open space. Reconfiguring the breakwaters and shoreline in and adjacent to the area would create a series of aquatic habitats, including wetlands and beaches. That would improve people's access and the quality of their experience along the Waterfront Trail. The wetlands would enhance fish habitat, and improve water quality by trapping sediments and excess nutrients. Building stormwater detention ponds would upgrade water quality in the nearshore areas of the lake.

There are many proposals to improve the quality and variety of open space, as well as the connections between open spaces — to create a "green network" that links the various open spaces in the area. The Waterfront Trail would provide east/west links and improve access to the shoreline of Lake Ontario. One possible route for the trail is along the perimeter of the islands at Ontario Place. A waterfront "canoe trail" would connect the Humber River to the Western Gap with potential links to the Toronto Islands and the Don River.

It is proposed that a Garrison Common trail be built, north from Coronation Park to Trinity Bellwoods Park, in order to establish a strong north-south connection with the lake. The trail would follow a series of existing and proposed parks and open spaces: a symbolic reference to Garrison Creek would be created, in the area where the creek and ravine once existed, through a series of stormwater management ponds, regrading, and revegetating with native woodland and meadow species.

The possible relocation of the Georgetown GO line further west would provide an opportunity to establish a green connection to Black Creek on the existing right-of-way.

Fort York would be better connected north to Trinity Bellwoods Park, east to the SkyDome and CN Tower, west to Exhibition Place, and south to the lake. Landscaping to recreate the original shoreline of Lake Ontario would be undertaken and could include symbolic shingle beach and water elements, a boardwalk link to Little Norway Park and the Western Gap, and relocation of the original Queen's Quay lighthouse to the site from its current home in Gore Park.

The existing sea of asphalt at Exhibition Place would be reduced and landscaped. At the west end of Exhibition Place, the integrity of the beaux-arts landscape would be maintained and enhanced by creating more pavilions-in-the-park and appropriate landscaping.

LAND USE

The plan proposes to continue and enhance the park and recreational character of Ontario Place, Exhibition Place, Coronation Park, and Fort York. The eastern end of Exhibition Place would be substantially redeveloped, with the creation of an upgraded Trade Centre, which would be designed to complement the surrounding

Figure 10.1 Preliminary Master Plan

park. Infill buildings on the other major public lands would be developed on a scale and character consistent with those already established.

With an active Trade Centre to the north, there would be major opportunities to expand the scope of activities at Ontario Place. A year-round "Waterfront Village" with restaurants, shops, hotel, and a new Maritime Museum would diversify the facilities.

The Fleet Street lands would be the site of medium-scale mixed commercial and residential development as a transition between the higher-scale development proposed for the Railway Lands and the park-like environment of Fort York, Ontario Place, and Exhibition Place.

The Northern Reindustrialization Area would be revitalized west of Strachan Avenue, mainly with trade-mart related industries such as printing, graphics, film and communications. East of Strachan, a commercial/residential mix similar to that of Fleet Street is envisaged. Heights and densities would decline north and eastward to conform to the existing Niagara and Parkdale neighbourhoods.

One of the paradoxes of Garrison Common is that it has exceptional transportation facilities, but limited accessibility. Major road and rail corridors bisect the district, but it is hard to gain access on foot, by bicycle or even by car.

TRANSPORTATION

One of the paradoxes of Garrison Common is that it has exceptional transportation facilities, but limited accessibility. Major road and rail corridors bisect the district, but it is hard to gain access on foot, by bicycle or even by car. The routes that pass through the area to serve downtown are serious barriers to movement in Garrison Common itself, and have a negative impact on its facilities.

The preferred transportation solutions being offered for Garrison Common are based on the assumption that at least four major proposals now under active consideration would affect the area. These include: reconfiguring the Gardiner/Lakeshore; extending Front Street west; possibly realigning the two major GO lines and constructing a new combined station; and extending the Harbourfront LRT.

The preferred solution for the Gardiner is to keep it in its current alignment, but to relocate and redesign it, at least between Strachan Avenue and Bathurst. That is the area in which it constitutes a serious visual, physical, and experiential blight on Fort York. The Front Street extension should run west from Strachan Avenue to connect to Lake Shore Boulevard west of Exhibition Place. The Front Street extension would improve access to the northern reindustrialization area and would make it possible to downgrade Lake Shore Boulevard from six to four lanes, modified to create a scenic waterfront drive. Traffic speeds should be lowered and traffic lights should facilitate pedestrian crossings.

Proposed realignment of the Georgetown GO line to the west would greatly benefit Garrison Common. The *Garrison Common Preliminary Master Plan* proposes a single, integrated GO Transit station, servicing both the Lakeshore and Georgetown rail corridors, which would

be built just north of the eastern end of the Exhibition grounds, and would allow passengers to connect directly with the Trade Centre. Connecting the Georgetown line to Lester B. Pearson International Airport would be a powerful component of transit infrastructure for Garrison Common and for Toronto.

Extending the Harbourfront LRT along the waterfront will mean better access to the recreational opportunities in Garrison Common. Because the revitalized exhibition and trade facilities will generate the presence of large numbers of people, a "people mover" system may ultimately be needed to link Ontario Place and Exhibition Place.

Connecting the Georgetown line to Lester B. Pearson International Airport would be a powerful component of transit infrastructure for Garrison Common and for Toronto.

To facilitate year-round use of Ontario Place, there will have to be improvements to the circulation system, to accommodate pedestrian, bicycle, and automobile traffic. The entry bridges, which are currently pedestrian bottlenecks, will have to be redesigned to make for easier traffic flows.

Most of the large surface parking lots that are so prevalent in Garrison Common would eventually be displaced. Instead transit would be enhanced and people would be encouraged to use it. Some surface parking lots — small, appropriately landscaped — would remain in Exhibition Place and Ontario Place and there might be opportunities to create a reservoir of off-peak parking north of the railway tracks.

Current land use, Garrison Common

Because Garrison Common now lacks a system of local streets, it has been proposed that the city grid pattern of streets from the north and east be extended into the area. Fleet Street itself would disappear, and The Esplanade would continue to the Princes' Gates. Lake Shore Boulevard would be slightly realigned to create a Princes' Gate Square in front of the eastern entrance to the Exhibition. Inside the gates, Princes' Boulevard would continue westward, providing a strong organizing element for the structures and activities to be established there.

Historical Elements

In addition to the already-described proposals for enhancing and recreating historical elements of Garrison Common, an open space connection with Trinity Bellwoods Park and northwest along the GO line would symbolically recreate Garrison Creek and link to Black Creek. The gesture of bringing water elements into Exhibition Place, Princes' Gate Square, and Fort York will recall historical connections to the original Lake Ontario shoreline.

Fort York could be given the prominence and setting it deserves by tying it into Garrison Common's green space network, relocating the Gardiner, improving access, providing symbolic links to the lake it once guarded, and creating better visual corridors. The Fort York Armoury could be used as the primary entrance to the Fort York park, and could become a more comprehensive military museum for Toronto.

There are many historical buildings in the area that should be preserved and reused. At Exhibition Place, the Horse Palace and the Coliseum could be successfully incorporated into the new Trade Centre. The fine buildings at the western end of Exhibition

Fort York

Place are sadly under-used and deserve permanent tenants. Potential uses include: a centre for the visual arts or educational, and environmental institutes; an aquarium; or permanent homes for major cultural institutions such as the Ontario College of Art.

The Maritime Museum needs a new location: it is too far from the waterfront and the current exhibition space is limited. This would free up Stanley Barracks for other functions, perhaps a unique meeting and reception centre, which would be enhanced by the re-creation of the original water's edge.

Other buildings that may have potential for new uses include HMCS York, as well as some of the area's remaining industrial buildings.

Implementing the Plan

The Royal Commission's work, in collaboration with representatives of four levels

> While urban networks exist in space and time, urban partnerships contain the potential for relationships that can animate these networks. They include the governmental and the non-governmental; professional, technical, and voluntary associations; the business, corporate and informal sectors. Partnerships can exist on a permanent or temporary basis, they can be formed through statute or through an ad-hoc desire to achieve common goals. They can exist at a local level as well as internationally.
>
> Jacobs, P. 1991. *Sustainable urban development.* Montreal: Third Summit of the World's Major Cities.

of government and their respective boards and agencies, has generated a Preliminary Master Plan to guide decision-making and planning in Garrison Common. However, the greatest challenges still lie ahead. Implementing an integrated Master Plan for Garrison Common will require a process that resolves current jurisdictional fragmentation, and that avoids the uncertainties, slowness, and lack of co-ordination characteristic of conventional approval processes.

The first step is to subject the plan to full public and governmental review.

Recommendation

70. The Royal Commission recommends that integrated public hearings be held to review the *Garrison Common Preliminary Master Plan.* The hearings should be jointly sponsored by the participating governments and agencies.

During the course of the Garrison Common study, the Province and Metropolitan Toronto considered submitting a bid for Expo '98, a Class B World Fair. More recently, the possibility has arisen of hosting a 1996 exposition; the prospect of presenting Garrison Common to an international audience reinforces the need for the highest standard of environmental planning, building, and landscaping design. It also emphasizes the need to move beyond the complex approval processes under which the site is now regulated, to rethink the independent and often contradictory responsibilities of government agencies, and to move towards comprehensive planning and implementation.

Recommendation

71. The Royal Commission recommends that the results of the hearings be referred to the federal and provincial governments, Metropolitan Toronto, the City of Toronto, and interested private-sector parties, for their consideration with respect to the five-year capital construction program for regenerating Garrison Common. Such a program should include:

- projects designed to improve water quality and the diversity of open space in the area;
- improvements to the existing waterfront trail system, and connections north to Trinity Bellwoods Park (the Garrison Trail);
- a new GO station to service both the Lakeshore and new

Georgetown lines, link with Lester B. Pearson International Airport, and provide a connection to the Trade Centre at Exhibition Place;

- a Trade Centre at the eastern end of Exhibition Place, and an emphasis on diverse, permanent uses for currently under-used buildings;
- improved connections at Ontario Place for pedestrians and bicyclists, development of a Waterfront Village and Maritime Museum, and a large-screen cinema complex; and
- programs designed to increase year-round accessibility and use of all amenities in Garrison Common.

TORONTO BAY

Toronto Bay has an extraordinary setting: its 400-hectare (1,000-acre) inner harbour is framed by a 250-hectare (625-acre) island park, a picturesque regional airport, a working port and the historic entrance to the City's downtown, extending up to the old shoreline at Front Street.

The Bay has been called Toronto's "waterfront piazza". This appellation reminds us again of the importance of vistas in the art of place-making. Around and across Toronto Bay are some of the most magnificent vistas that this region has to offer; looking outwards from the City to the Lake, as well as looking at the

Toronto's "waterfront piazza"

City from the Islands, the Spit or the Lake itself.

Toronto Bay's individual places — diverse in character and function — have been changing fundamentally during the past 25 years and the area is being transformed. Their history, current forces of transition, and possible future roles are discussed in the following order:

- Railway Lands, which are now beginning to evolve into distinct neighbourhoods: City Place; Southtown; the Union Station/ Central Bayfront area; and emerging Central Park;
- Harbourfront lands, no longer an isolated enclave, but beginning to be integrated with surrounding areas;
- Toronto Island Airport; and
- Toronto Islands park and community.

Railway Lands

In its *Watershed* (1990) report, the Royal Commission examined the troubled 30-year history of the proposed Railway Lands redevelopment, discussed the basic features of the 1985 Part II Railway Lands Plan, adopted by City Council and the railways, and concluded that — in light of changes in the area, in the Financial District, and in surrounding areas — the plan should be reviewed.

In May 1990 Toronto City Council asked its Commissioner of Planning and Development to conduct such a review, in keeping with Planning Act requirements, and consistent with a provision in the Part II Plan itself.

A Historical Overview

Discussion on the future of the Railway Lands is hardly a recent phenomenon: the idea of removing 80 hectares (200 acres) of tracks separating City and lake has challenged planners, architects, developers, citizens, and politicians almost continuously for the past 30 years, and is hardly unique to Toronto. But a knowledge of the history of these lands is crucial to understanding the current situation and future opportunities.

The first major report on the lands in recent times was *The Core of the Central Waterfront*, prepared in 1962 for the City of Toronto Planning Board; it suggested decking the rail corridor and creating an expanded terminal. This idea was embodied in the 1963 Plan for Downtown Toronto,ultimately adopted by City Council in 1965. At the time, both CN and CP railways were building major new freight yards in the suburbs and, in 1968, they jointly produced a study, *Metro Centre*, for the redevelopment lands. It recommended relocating the rail corridor, demolishing Union Station, and building a new intermodal transportation terminal with considerable commercial and residential development. Thus began the three-decade debate that persists to this day.

The idea of removing 80 hectares (200 acres) of tracks separating City and lake has challenged planners, architects, developers, citizens, and politicians almost continuously for the past 30 years.

Current arguments, however energetic, are only the most recent manifestations of a much older controversy: Toronto began on the lake and waterfront development has always been an important and controversial factor in the City's evolution.

Virtually all the Central Waterfront, starting at Front Street, was created by extensive lakefilling that began in the City's early days; in the 1830s, public concern about the use of, and access to, the waterfront made the city council of the day apply for the patent of the waterlots, south of the former shoreline, to create a public, 30-metre (100-foot) wide, tree-lined promenade. Construction of this road, The Esplanade, did not begin for another 20 years, after wrangles between the municipality and various private interests. However, less than two years after The Esplanade opened in 1854, the City granted its southern 12 metres (40 feet) to the Grand Trunk Railway (now CN).

In 1855, a new railway station was built at Front and Bay streets. Lakefilling for the railways, shipping, and industry continued sporadically for the next half century. The many east-west railway tracks crossing the bottom of the busy city created dangerous and inconvenient level crossings at York, Bay, and Yonge streets. In 1892, a bridge was built over the tracks at York Street, to permit pedestrian and vehicular access to the waterfront and minimize the effect of the rail barrier.

In 1904, the train station burned down in the Great Toronto Fire. Between 1905 and 1924, arguments continued among the CP and Grand Trunk railways, the City, the Toronto Harbour Commissioners, and the federal government on the design and location of a new station and whether there should be a raised or lowered rail corridor.

The Grand Trunk Railway supported the concept of raising the tracks on a viaduct allowing York, Bay, and Yonge streets to run under the tracks, a plan CP opposed. Its response was to build (and later vacate) its own station at Summerhill and Yonge.

In 1924, an independent commission recommended that the viaduct plan be implemented and the railway corridor was

Summer crowds crossing tracks at Bay Street, 1912

raised approximately six metres (20 feet). In 1927, Union Station as we know it today was opened, and more than 40 hectares (100 acres) of new land south of the station were created for rail yards. The freight line by-pass along the southern boundary, also on a raised viaduct, was constructed and then filled in to create a berm six metres (20 feet) high.

In the 1930s, and for the next 30 years, the THC continued its massive program of lakefilling south of the Railway Lands, for port and industrial uses. (It is ironic that, just as the railways were making plans to relocate their yards to the suburbs, Metropolitan Toronto, assuming the status quo, was building another waterfront barrier, the Gardiner Expressway.) Lake Shore Boulevard was constructed and, in 1963, the Gardiner Expressway opened. All the barriers to the waterfront we know so well today were firmly in place: the railway corridor and rail yards were functioning on lakefill six metres (20 feet) above the water, and the Gardiner/ Lakeshore Corridor was operational.

THE 1970s

Beginning in the late sixties, CN and CP railways jointly created Metro Centre, a development company which presented a plan to the City for land owned by CN, CP, THC, the City, Metro, and the federal government. Not surprisingly, the issue of land ownership and control continually plagued plans.

The Metro Centre proposal was negotiated with the City, Metro, and the provincial government for four years and, by 1972, the Ontario Municipal Board had approved the plan for these lands. That year, construction started on the CN Tower.

In November 1974, CN shelved the development company's project, CP having left the partnership earlier.

In January 1976, the City adopted a new Central Area Plan, which called for special studies of the Railway Lands. At the Ontario Municipal Board, the railways argued that the City's plan was unacceptable and, by January 1978, Toronto City Council had proposed amendments to deal with the railways' objections. It submitted two new studies, *The Railway Lands: Basis for Planning* and *The Railway Lands: Proposed Goals and Objectives*, which were adopted by City Council after four months of public discussion.

THE 1980s AND 1990s

With the Central Area Plan approved by the OMB in June 1978, a Railway Lands Steering Group was created, chaired by the Honourable John Clement, then a member of the provincial Cabinet, and comprising representatives of all governments, as well as of the railways, to conduct detailed studies and co-ordinate the efforts of the many interested parties. By May 1982, the City's Department of Planning and Development had submitted a progress report, which effectively launched the formal preparation of the new Railway Lands Part II Plan.

The final report for the Railway Lands Official Plan and Zoning By-law was submitted to City Council in July 1985, followed in August by a report on the Memorandum of Conditions, which dealt with implementation aspects of the plan (land exchanges, infrastructure, cost-sharing, etc.).

The plan set out Council's policy for the Railway Lands:

> They are to be developed as an integral part of the Central Area, in order to minimize the barrier effects of

the road and rail corridor and the central city reunited with the waterfront.

They should satisfy a broad range of commercial, residential, institutional, cultural, recreational, and open space needs, while ensuring effective and efficient transportation services, including those by inter-city rail and commuter rail.

The plan divided up the 81 hectares (200 acres) of Railway Lands into 14 precincts, and allowed for high densities, particularly at the eastern end, where it envisaged the financial district would extend into the area, with buildings as high as those in the financial district.

One crucial aspect of the planning approval process was that Council created holding by-laws ("H" designations), under which environment and transportation issues would have to be studied before the subject lands were developed. Council viewed this as "fundamental to the proper planning and incremental development of the Railway Lands".

In January 1985, Premier Davis announced that a new covered baseball stadium would be located on the Railway Lands. Council had already adopted the Part II Plan, Zoning By-laws, and Memorandum of Conditions, and in March 1986, it approved the by-laws and agreements for the stadium. All these by-laws were debated at the Ontario Municipal Board in the summer of 1986 and were approved in December of that year.

In 1988, CN and Marathon Realty, the real estate subsidiary of CP, submitted separate applications to develop certain portions of the land and requested that the H designation be removed entirely from the Railway Lands. Early the next year, unable to get the City to respond, the applicants appealed to the OMB for a hearing, which the Board set for September 1990. But in April, City Council asked its Commissioner of Planning and Development for a report on processing applications for the Railway Lands. On 25 May 1990, he submitted a

Vacant lands offer new development possibilities

report recommending that the Official Plan Part II for the Railway Lands be reviewed, in order to consider the implications of many changes that had occurred since it was adopted.

The City's review did not intend to deal with the Railway Lands from scratch, but to assess the possibilities for improving the 1985 plan in the context of five major objectives:

- to improve the quality of the physical environment;
- to convert commercial uses to residential where appropriate;
- to identify locations for community services (schools and a community centre);
- to reflect advances made since 1985 in knowledge and understanding of environmental needs and processes; and
- to determine the development potential and feasible location for building over the rail corridor, as well as to take advantage of the opportunity of giving the south face of Union Station a civic portal, thereby making it a gateway to and from the Central Waterfront.

Modifications to the plan adopted by City Council include:

- measures to enhance the public domain, such as increased emphasis on north-south streets, greater setbacks, and more tree planting, to create pedestrian-friendly infrastructure and capture better sunlight conditions;
- reductions in the density and height of permitted development, as a consequence of the measures described above;
- conversion of commercial to residential use where appropriate, in order to support a better balance between place of residence and place of work in the City and the region;
- an enlarged Central Park adjacent to the SkyDome and including the Roundhouse;
- improved siting for the community park at the western end of the lands and designation of school sites alongside it;
- improved urban design around Union Station; and
- improved strategies for water conservation, energy efficiency, stormwater and groundwater management, waste management, and district heating and cooling.

Overall, the revisions have reduced the amount of development space by about 30 per cent, 371,600 square metres commercial and 278,700 square metres residential (four million square feet commercial and three million square feet residential). They also offer a better relationship between the Railway Lands and the waterfront, with improved pedestrian access, and better green and open space connections to and through the Harbourfront lands to the water's edge. As a statement of policy, the changes also accommodate the possible relocation and/or redesign of the elevated section of the Gardiner Expressway.

One of the owners, Marathon Realty, has also made provision for such a change, by proposing to begin development north of Bremner Boulevard. This phasing, together with setback provisions that Marathon is also willing to make, will allow both time and space to resolve the Gardiner issue in that area.

As the plans mature, it is evident that the Railway Lands can be subdivided almost naturally into three, possibly four, distinct neighbourhoods or areas. These are:

- **CityPlace**, CN Real Estate's lands west of John Street to Bathurst Street, an area that may become more residential and less commercial in character if the City's revisions are accepted by the Ontario Municipal Board;
- **Central Park**, an area of public amenities and attractions stretching from John to Simcoe streets, and including the CN Tower, SkyDome, the Metro Toronto Convention Centre (MTCC), the planned park, and Roundhouse Museum;
- **Southtown**, Marathon Realty's lands, running from Simcoe to Bay streets, which will function principally as a southerly extension of the Financial District; and
- **The Union Station Precinct**, the central intermodal terminus and interchange for the region, as well as a primary pedestrian and transit connection between the downtown and the waterfront.

The public interests and values inherent in two of these places, Central Park and the Union Station Precinct, are worth comment.

Central Park

As a consequence of all the plans, modifications, and negotiations, the City of Toronto, as well as the other levels of government and the public agencies involved, now has a magnificent opportunity to create a Central Park worthy of the name, which could stretch from Front Street to the lake. It would lie athwart the Railway Lands, as described earlier, and cross Bremner Boulevard, the Gardiner/Lakeshore Corridor, Queen's Quay West, and Harbourfront to the water's edge.

The northern 1.05 hectares (2.6 acres) of the park would consist of a landscaped deck over the rail corridor. The park would provide an attractive setting for the CN Tower, SkyDome, the renovated Roundhouse and the Convention Centre, an additional 7.3 hectares (18 acres); in the Harbourfront area, a further 2 hectares (5 acres) would be a green link to the water, either in the vicinity of York Quay Centre and Queen's Quay Terminal, or near Maple Leaf Quay.

An expansion of the Metro Toronto Convention Centre (MTCC), proposed by the provincial Crown corporation that runs the amenity, could be part of the park. Originally built with funds provided by the federal, provincial, and metropolitan governments during the 1980s, the convention centre has produced an operational profit every year since it was opened in 1985. The centre's board claims that the initial investment was recouped in two and-a-half years.

There is a wide array of conventions and meetings at the centre, which is an important source of business for Toronto's hospitality industry, attracting some two million visitors a year. But the MTCC has found that even with its 100,000 square metres (1.1 million square feet) of space, it cannot accommodate conventions, which keep growing in size, and loses business, including repeat business, that has outgrown MTCC's existing capacity.

The centre has therefore proposed to double in size by extending existing facilities southwards, under the Central Park. Planning feasibility studies have already shown

Proposed Convention Centre expansion

that this can be done attractively and both support and complement the City's objectives for the Central Park.

Furthermore, MTCC has indicated that, on the strength of its business record, it should be able to raise the bulk of the capital financing required for the project on its own account. It estimates that it would require less than one-third its construction costs in capital support from governments.

Union Station Precinct

In *Watershed*, the Commission expressed support for the Province's ongoing negotiations with Toronto Terminal Railways (TTR) to purchase Union Station and the adjacent rail corridor, and convert them for use as the central intermodal transportation facility for the Greater Toronto region, recognizing their strategic function and location. Although the negotiations have made progress, they were not complete as this was being written in December 1991. The Commission believes that it is critically important for the Province to own these assets.

Harbourfront Corporation

The east-west railway tracks crossing the bottom of the busy City were only one of the barriers to public access and enjoyment of the waterfront. The realities of industrial, commercial, and port use of much of the land along the water's edge had brought gritty industries, wharves, and warehouses as well as the sprawling railway yards. More recently, the Gardiner Expressway and the imposing new structures of the Central Bayfront area threatened to form a concrete curtain along the waterfront, effectively blocking off the water even as they made access to the waterfront more difficult.

At a time when the federal government was concerned about the health of cities, and particularly about getting directly involved in maintaining and restoring their well-being, it decided during the election campaign of 1972 to acquire 40 hectares (100 acres) of land in the Toronto West Bayfront area as an urban park for the people of Toronto. The announcement drew comparisons between the potential of the site and the attractiveness of Vancouver's Stanley Park, Québec's Plains of Abraham, and London's Hyde Park — all parks in the traditional sense.

The lands acquired, subsequently known as the Harbourfront lands, were bounded by Lake Shore Boulevard to the north, York Street to the east, the

harbour to the south, and Stadium Road to the west.

The federal action, taken without consultation, was adversely viewed by the Province and by local governments, thus setting the stage for conflict and requiring public consultations that delayed creation of a mutually agreed-on plan for several years. However, the importance of the site eventually brought the interested parties to the table and, in 1978, the federal government created Harbourfront Corporation to manage the task of developing the urban park.

It was clear that, if public access was to be restored, physical revitalization of the area would be necessary and that people would be drawn to the site only if activities attracted them. Harbourfront faced a two-fold challenge: to redevelop the lands and to create programs and activities that would draw people to them. The dual mandates of real estate development and programming were initially viewed as complementary and even mutually dependent: development would pay for programming; programming would justify development.

In its early years, Harbourfront was a great success: increasing numbers of people were pulled to the site by imaginative and creative programs aimed at all age groups. Art shows, dance groups, craft demonstrations, poetry readings, and theatrical presentations vied for public attention. Costs were subsidized by the federal government, by real estate development, corporate sponsorships, and ticket sales. Harbourfront Corporation and its staff were justifiably proud of being able to offer quality programming at affordable prices.

Moreover, the early real estate developments were seen as being of high quality and very much in line with people's expectations. Renovations to the Queen's Quay Terminal and construction of the Admiral Hotel, Metro's marine police facility, and the King's Landing condominiums were perceived as good examples of urban design and renewal.

The need to satisfy increasing financial requirements for programming, as well as Harbourfront's wish to continue pursuing its goal of financial self-sufficiency, led it to a growing interest in the land development side of the business, ultimately manifested in high-rise buildings on the site.

But, as more buildings were developed, public concern grew, which, in 1987, led the City to impose a freeze on developments. Soon thereafter the federal government began a policy review of Harbourfront's role and mandate. Opposition to the high-rises at Harbourfront was exacerbated by high-rise developments on neighbouring waterfront sites between York and Yonge streets. Whether or not they were actually on Harbourfront lands, high-rises added to the growing sense that the public was being cut off from the lake and that the shoreline, rather than being used as a park for people, was becoming a housing tract.

Opposition to the high-rises at Harbourfront was exacerbated by high-rise developments on neighbouring waterfront sites. Whether or not on Harbourfront lands, high-rises added to the growing sense that the public was being cut off from the lake.

A public review showed that people thought it was no longer appropriate for funding for Harbourfront's programming

to come from the proceeds of real estate development. A number of deputants spoke to the issue at the public hearings in early 1989. In journalist June Callwood's words, making "programming. . .dependent upon putting up more ugly buildings seems to me to be a reprehensible way for it to have been planned".

With the Central Bayfront area east of Harbourfront becoming rapidly built up and major projects being planned for the Railway Lands, Harbourfront was no longer considered an isolated urban island. In its first interim report, the Commission concluded that the Government of Canada, having essentially accomplished what it set out to do in 1972, should implement the following three recommendations:

> Harbourfront Corporation should be converted immediately to a new entity, Harbourfront Foundation, whose mandate will be to continue the provision of Harbourfront's wide variety of outstanding cultural, recreational, and educational programs, generally by:
>
> (a) programming its own activities;
> (b) providing facilities and support to other organizations who wish to use its amenities and expertise;
> (c) funding other organizations' programs which, in the opinion of the Board of Directors, are in the public interest and are compatible with a waterfront environment;
> (d) placing a stronger emphasis on marine and water-related programs and activities;
> (e) reflecting, maintaining, and preserving Toronto's waterfront and marine heritage; and
> (f) endowing the Foundation sufficiently to sustain the continuation of Harbourfront's programming activities.
>
> 2. The Harbourfront lands and properties should be planned with the City in accordance with the following principles:
>
> (a) A minimum of 16 hectares (40 acres) of land be made available immediately for parkland and be conveyed to the City, including a continuous waterfront promenade along the water's edge.
> (b) Provision of a community school site (acceptable to the appropriate school board) to serve the Harbourfront community and the surrounding area, for conveyance to the school board.
> (c) Provision of community facilities, including, but not necessarily limited to a community centre, medical clinic, library facilities, day-care and play space for children, and a place to worship.
> (d) The completion of Harbourfront Corporation's commitments with respect to assisted housing.
> (e) The allocation of sufficient lands and properties to support the Harbourfront Foundation's programming mandate, as defined in recommendation 1 above, and including additional program facilities, such as:
>
> (i) a nautical centre, with sufficient space to provide permanent accommodation for the sailing clubs and

Central Bayfront

schools currently operating out of makeshift facilities at Harbourfront; and

(ii) preservation of the Canada Malting silos, and consideration of their conversion to a civic museum.

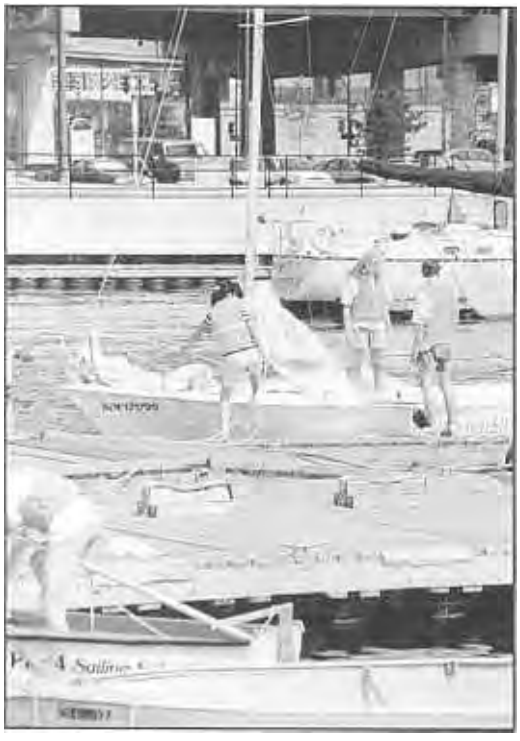
(f) The further planning and development of the Harbourfront lands including links to adjacent areas such as Coronation Park, Molson's, Dylex, Loblaws, SkyDome, the Railway Lands, the financial district, and the Central and East Bayfront be included in the City's review of the Central Area Plan.

(g) No further building south of Queen's Quay West with the exception of low-rise buildings considered by the City to be in the public interest.

(h) An urban design plan be established as an integral part of Harbourfront's Official Plan amendments.

3. The federal government should work with the City, the Harbourfront Foundation,and other appropriate bodies to give effect to the changes arising from these recommendations. The lands, properties, and residual interests now managed by Harbourfront Corporation, and those still in the inventory of Public Works Canada should be held and administered by PWC on a temporary basis until appropriate agreements with the City are implemented.

The federal, provincial, and city governments moved quickly to respond to the recommendations. In November 1989 the Province declared a Provincial Interest



Learning to sail, Maple Leaf Quay

in the Toronto waterfront, citing excessive development and the need to preserve parkland for the public. In December 1989 the provincial Minister of Municipal Affairs advised Toronto's mayor not to implement an agreement the City and Harbourfront Corporation had made earlier that year to transfer parklands and buildings to the City. The minister then imposed a ministerial zoning order, prohibiting new construction on the Harbourfront site and asked the Premier's Special Advisor on the Waterfront, Duncan Allan, to review the agreement and bring forward a plan for Harbourfront that would serve the public interest, as recommended by the Royal Commission.

The report submitted by Mr. Allan in March 1990 to the Minister of Municipal Affairs recommended: creation of more parkland; unconditional funding of $28 million to the City for parkland improvements; dissolution of Harbourfront Corporation, which would be replaced by the federal government with a new entity that had the sole task of providing public programs to be funded by an endowment; disposal of all federal assets in Harbourfront; and maintenance of the provincial zoning order until the public benefits were realized.

The City of Toronto signalled its broad support for the overall direction being taken and Harbourfront's board of directors voted unanimously to concentrate solely on programming. The federal government appointed Mr. W. Darcy McKeough to make recommendations on how the federal government should respond to the Province's views.

In November 1990 Mr. McKeough proposed a reorganization of Harbourfront that would split the Corporation's functions amongst three new entities: Harbourfront '90, a not-for-profit charitable company, which would carry on Harbourfront's cultural, recreational, and educational programs; a foundation that would manage the funds generated by disposing of Harbourfront Corporation or Crown non-program real estate assets still remaining and make annual payments of income to support the programming activities of Harbourfront '90; and the Harbourfront Disposition Company, which would dispose of Harbourfront Corporation or the Crown non-program real estate assets still remaining and turn the proceeds over to the foundation.

Mr. McKeough also recommended that parkland and funds for parkland improvements be given to the City of Toronto in the amounts and locations recommended by Mr. Allan's provincial review.

The McKeough recommendations were accepted by the federal government

SCHOOL BY THE WATER

Imagine yourself in grade four: you are on a boat, surrounded by your classmates, pulling up a vial of water from the bottom of Toronto Harbour so that you can assess the quality of its water. That type of learning experience is offered by School by the Water, a Harbourfront non-profit learning centre in York Quay Centre.

School by the Water has classes in urban studies and visual arts for students from kindergarten to college level. The urban studies program offers a hands-on opportunity to learn about the waterfront and the city's impact on it; through field trips and presentations, students are introduced to the history of the waterfront area and to its environmental, planning, and development issues. The material covered in a half- or full-day class at the school can form the basis for further regular classroom learning.

School by the Water has been active on the waterfront for 16 years and during that time, has offered many children a chance to explore Harbourfront, a vibrant part of Toronto where the city meets the lake. A small park area with trees and grass at the edge of York Quay has always been a favourite place to learn and play. Recently, however, the school was dismayed to discover that the trees were cut down for the expansion of the adjacent Molson stage. Fortunately, new trees will be planted and with time, will again provide a shady spot to relax and watch the lake.

In recent years, School by the Water has incorporated environmental issues into its curriculum. The visual arts program includes a sculpture-making workshop that utilizes "discarded" materials such as foam, plastics, and cardboard to help children in grades one to four absorb the value of recycling.

Lakewise, a program at School by the Water, was developed last year with the Harbourfront Marine Department; it focuses on Toronto's relationship with and dependence on Lake Ontario. Students visit the Toronto Islands and the Toronto Harbour, spending a day on the water where they can sample and observe the aquatic ecology of both. Aboard the passenger ship *Rosemary*, students investigate water quality, erosion, lakefilling, bird populations, and the effect of humans on them. The program was designed to foster appreciation of the natural environment and to help young people develop positive attitudes towards conserving natural resources.

School by the Water offers many city children a rare opportunity to experience the outdoors and learn about nature. By having contact with nature, and learning about the impact of the city on water quality, children learn about their role in maintaining a healthy environment. Moreover, children today may influence their parents, and later, when they are society's decision-makers, will perhaps bring with them a clearer understanding of how much is at stake.

and were being implemented by early 1991. Mr. McKeough agreed to manage disposition activities on behalf of the federal government, including negotiating with the City on lands that were no longer required by Harbourfront Corporation

Skating at Harbourfront

and were to be turned over to it; negotiating with developers on shifting proposed developments from the south side of Queen's Quay West to other locations; and disposing of remaining Harbourfront or Crown non-program real estate assets to raise funds for Harbourfront '90's endowment.

The Royal Commission's recommendation on planning and design issues was intended to reflect the fact that, no longer isolated, the Harbourfront lands should also be planned on an integrated basis with adjoining lands. Excellent design on the waterfront was also important. There was a need to deal with social issues in the area; and support for the City's parkland goals was worthwhile.

In 1991, having reached agreement with Mr. McKeough, the City of Toronto made formal application to the Ontario Municipal Board (OMB) for approval of a Zoning By-Law and Official Plan Amendment for the Harbourfront lands. Hearings began in November and were adjourned to February 1992.

Before the OMB can approve the application, Harbourfront Corporation and the developers must agree on relocating proposed developments from lands south of Queen's Quay West, and the City and Harbourfront Corporation must concur on the transfer of lands and money. If the OMB approves, and the Province lifts the zoning freeze, the Zoning By-Law and Official Plan Amendment will come into effect, facilitating full implementation of the Royal Commission's 1989 recommendations on the matter.

The second Royal Commission recommendation is also being addressed. The Official Plan and Zoning By-Law includes, for example: provision to designate more than 16 hectares (40 acres) of Harbourfront land as public park; permits a school on the east portion of Bathurst Quay, permanent community and day-care facilities on Bathurst Quay, the nautical centre to continue its activities on the Maple Leaf Quay and to relocate in part to John Street Quay; and replaces residential building site designations south of Queen's Quay West. In addition, the City has approved urban design

criteria for building parcels in the Official Plan and Zoning By-Law and in specific Urban Design Guidelines.

The third and final Royal Commission recommendation on Harbourfront Corporation addressed implementation of the recommendations and transitional arrangements for management of the residual real estate interests. The approving of the Official Plan and Zoning By-Law Amendments and the lifting of the provincial zoning order on Harbourfront lands will allow disposition of the remaining Harbourfront and Crown non-program real property assets. As well as using proceeds from those sales to endow future programming, Harbourfront '90 will be free to seek out funding from such sources as the Canada Council or the private sector; pending establishment of Harbourfront '90's endowment, the federal government has agreed to make available to Harbourfront Corporation $8.8 million in each of three years, beginning in 1991.

Harbourfront '90 will be challenged to match future programming plans to available income; one way might be by seeking co-operation from other entities on the waterfront in joint endeavours that take advantage of Harbourfront '90's programming skills and experience.

Toronto Island Airport

The federal mandate given the Royal Commission specifically asked it to examine the future of the Toronto Island Airport (TIA) and related transportation services. Subsequent public hearings, held in early 1989, identified a number of issues including: access from the mainland, introduction of jet aircraft, noise, expansion of facilities and services, balancing general aviation and scheduled carrier use, as well as management of the airport and subject lands. Ideas about the TIA's future ranged from phasing it out as quickly as possible to expanding it as much as possible. A detailed examination of these issues was needed before any recommendations could be made on the TIA's future.

In Publication No. 7, *The Future of the Toronto Island Airport: The Issues*, Royal Commission staff described the airport's origins and history, reviewed submissions to its January and February 1989 public hearings, and described some of the approaches it considered when reaching conclusions about the TIA. This was intended as the basis for further thought and discussion at the scheduled June 1989 public hearings; final recommendations were incorporated in the Commission's 1989 interim report.

A Historical Overview

The Toronto waterfront has been a factor in Canadian aviation since 1909, when the first amphibious aircraft landed at the Toronto harbour. By the 1920s, the Toronto waterfront was seriously being considered as a site for commercial aviation but it was 1937 before the City of Toronto approved construction of two municipal airports and, with the federal Department of Transport, agreed to locate a municipal airport on the Toronto Islands; the facility near the relatively distant village of Malton was merely a back-up in case of fog. (With its first terminal housed in a quonset hut, Malton expanded rapidly and, in 1983, was renamed Lester B. Pearson International Airport.) The City was responsible for half the construction costs of both projects and asked the Board of Toronto Harbour Commissioners (THC) to oversee construction and to operate the two airports.

In 1939, the City of Toronto leased its Malton operations to the federal Department of Transport but, at the Toronto Islands, the THC continued to act on its behalf as administrator and operator. During World War II, TIA became a Norwegian air base and, in the years following, as Malton grew, was used principally as a facility for training operators of light, private, and commercial aircraft.

In 1957, the City transferred ownership of Malton to the federal Department of Transport, in return for which the department promised to make major improvments to TIA's airport facilities; in 1961, the TIA site was extended east and west by lakefill and the promised facilities were built. The City agreed that the THC would act as principals in operating the Island Airport and, in July 1962, leased lands at TIA to the THC for 21 years.

TIA operations were generally unprofitable and, in 1974, the federal government agreed to the THC's request for a subsidy, subject to intergovernmental agreement on the airport's future. In March of that year the Joint Committee-TIA was convened, with representatives from the federal, provincial, Metro, and City governments, and from local community organizations.

The TIA Intergovernmental Staff Forum (ISF) was established in 1975 to provide technical assistance to the Joint Committee and to evaluate alternative uses for the airport; in turn, the ISF was directed by a Policy Steering Group, consisting of the federal and provincial ministers of transportation, the federal Minister of State for Urban Affairs, the Chairman of Metro Toronto, the Mayor of the City of Toronto, and the Chairman of the THC.

After examining a wide range of possible uses for the airport site, the ISF analysed three in detail: it could be used for general aviation only, general aviation and Dash 7 STOL service, or recreational use with or without housing.

In March 1977, when the ISF tabled its findings, the federal, provincial, and Metro governments favoured the general aviation/STOL option while the City wanted general aviation only. Further discussions did not resolve the disagreement.

Between February 1980 and March 1981, the Canadian Transport Commission (CTC), an independent body established to give the federal Minister of Transport advice on licensing commercial air services, held hearings on an application by Canavia Transit Inc., one of five carriers applying to operate STOL services between the Toronto Island, Montreal, and Ottawa. The City of Toronto intervened, on the grounds that changing Toronto Island Airport into the City's second commercial airport would run counter to municipal efforts to promote recreation and housing on the waterfront. Moreover, the City said, the costs of a STOL service would exceed any benefits it could provide.

The CTC concluded that the adequacy of air services in the Toronto/Montreal/Ottawa triangle should not prevent licenses for new carriers that would provide more convenient services to the travelling public and further justified the decision on the grounds of present and future public convenience and necessity.

Although the CTC was satisfied that a need existed for the service, it did not award a licence, both because of the City's opposition to the STOL and to construction of the necessary STOL infrastructure, and because

Transport Canada had not committed itself to upgrading the TIA or providing such infrastructure.

The airport's future remained uncertain until February 1981, when Toronto's City Council recommended that it accept advice given by the mayor: reach an agreement with the federal government and the THC to develop the airport for general aviation and limited commercial STOL service, provided the City's waterfront objectives can be protected.

In June 1981, a Memorandum of Understanding (MOU) was signed by the federal Department of Transport, the City of Toronto, and the THC, setting out conditions under which limited STOL passenger service could be established at the TIA. Two years later a 50-year Tripartite Agreement, which superseded the MOU, was signed by the City, the THC, and the Department of Transport, providing for continued use of City land at TIA for a public airport for general aviation and limited commercial STOL service. Under the agreement, jet-powered flights are permitted only for medical evacuations, emergencies, and during the Canadian National Exhibition Air Show. The agreement was amended in July 1985 to permit operation of the de Havilland Dash 8 aircraft at TIA.

The Toronto airport system comprises Pearson International, Toronto Island, Buttonville, and Downsview airports. (Existing airports in Hamilton, Oshawa, and Barrie were not included in the Royal Commission's analysis.) Of the two Toronto facilities serving a significant number of passengers — Pearson and Toronto Island — the latter represents about three per cent of total Toronto traffic and about five per cent of total domestic traffic. From 1977 to 1988, total movements at Pearson ranged from approximately 200,000 to 350,000, while they ranged from approximately 150,000 to 200,000 at TIA. More than half those at TIA were local, while the majority at Pearson were itinerant (i.e., travelling from one city to another).

The TIA is a regional facility: one, according to Transport Canada's definition, that supports a CTC class 1 single-plane service to a national or international airport, as well as direct non-stop scheduled or charter services to at least three other airports.

The majority of scheduled aircraft operating at TIA are turboprops. Because of closer proximity to downtown Toronto's business district, turboprops there can compete over longer distances with the generally faster turbojets operating from Pearson.

Because of the Western Channel, surface access to the airport has always been by passenger and vehicle ferries; improving surface access to Toronto Island Airport is a time-honoured subject of formal and informal studies. However, none of the many recommendations has ever actually been implemented, because the unanimity required by all parties is lacking.

The 1983 Tripartite Agreement forbids a fixed-link access in the form of a vehicular tunnel, bridge or causeway. It should also be noted that the Province, in keeping with its policy of providing surface access to airports, defrays the operating losses of the airport ferry. Commercial parking space for approximately 125 vehicles is provided on the mainland by the THC.

Ownership and Control

Ownership of the 87-hectare (215-acre) TIA site and its facilities is quite complex.

Toronto Island Airport

The jurisdiction in the original Crown grants and conditions changed over time, as the result of site expansion by lakefill in 1938 and 1962, changes that occurred when Metro came into existence, and the granting of leases.

The THC owns the largest portion of TIA lands: 65 hectares (162 acres) of land and 68 hectares (168 acres) of water. The City of Toronto owns a total of 19 hectares (48 acres) of land and 6.5 hectares (16 acres) of water. The federal government owns two small land parcels with a total area of two hectares (five acres). Parkland and waterlots south and east of the airport are owned by Metropolitan Toronto while unfilled lots west of the area are owned by the City and THC and are controlled by the Province.

In 1957, the City relinquished Malton Airport to the federal government in exchange for major improvements to TIA; it agreed that the THC would operate the TIA as principals and, in July 1962, leased all lands located at the airport to the THC for 21 years. On expiry of this lease, the Tripartite Agreement came into effect.

In 1974, the THC realized that airport revenues did not cover the combined operating costs of the airport and the airport ferry and asked the federal and provincial governments for subsidies as an alternative to closing the airport. Ottawa agreed to assume the TIA's operating losses until its future could be decided and the Province agreed to defray the operational costs of the ferry.

Under the 1983 Tripartite Agreement, the federal government is to consider requests to offset any deficits incurred by the THC in operating the airport during the term of the lease. If the City or the THC, because of a lack of funds, advises the minister it no longer wishes to be financially

responsible for operating the airport, Ottawa has 90 days to indicate whether Transport Canada will take over operations. If the minister declines, the airport must be closed and lands currently owned by the federal government revert to the City; the City also retains the option to purchase the THC lands.

THE ISSUES

Since the 1970s, environmental issues have figured prominently in intergovernmental discussions on the airport, including many meetings about noise, urban design, and the City's concern that the airport might have an adverse effect on other waterfront uses, such as recreation and housing.

Noise is still the primary public concern, while there is little public comment about such consequences of the airport's presence as soil and water contamination from aircraft fuel, cars, and buses; lakefill; chemical pollutants; and run-off.

The Royal Commission found no overwhelming public demand for any change in the airport's current role

Several mathematical models have been developed to express, in a single index, the combined effect of the variables that influence human response to noise. One model, the Noise Exposure Forecast (NEF), has been adopted in Canada for controlling land use in the vicinity of airports. NEF values do not indicate actual noise levels but are a measure of the probable psychological response of an affected community to the actual noise generated by aircraft movements at a given location near an airport.

Official NEF contours are prepared by Transport Canada and published by the Canada Mortgage and Housing Corporation as a guide for land-use planners. There is no statutory requirement for compliance with these standards, and no airport is legally required to operate in the manner assumed for purposes of preparing the noise forecasts. The significant NEF value for the TIA is 28, as stated in the Tripartite Agreement, which defines the maximum level of noise-related activity permitted as being tolerable to residents. According to the official 1990 NEF contour map, there are no residents living within the 28 NEF Contour. (See also the section on the Lower Don Lands.)

During its public hearings, the Royal Commission listened to different views on the TIA's dual role as the location for general aviation and limited STOL service: whether it should be maintained as is or give priority to one type of use over any other; whether the ferry is a bottleneck or a safety valve — which seems to depend on whether people think the airport should remain at its present size or be expanded — whether there should be a fixed link, for vehicles, pedestrians, or both; and whether TIA needs to be managed by a body other than the Toronto Harbour Commissioners.

The Royal Commission found no overwhelming public demand for any change in the airport's current role and made the following recommendations in its 1989 interim report:

- The Toronto Island Airport should continue its dual role serving general aviation and air commuter operations within the Tripartite Agreement.

- The City of Toronto, in consultation with Transport Canada, should consider whether to keep or replace the Toronto Harbour Commissioners as its agent in the management and operations of the Airport.
- Irrespective of the response to the previous recommendation, the City and Transport Canada should require improvements in the management of the Airport, including a new financial and accounting base and improved public and user consultation processes.
- A new plan should be prepared to reflect the role of the Airport as contemplated by the Royal Commission, ensuring that it remains at its existing scale within the waterfront environment, is cleaner and quieter, and is sensitive to the needs of its users.

In response to the recommendations, both the City of Toronto and a provincial-municipal committee commissioned studies to examine these and other related airport issues. Results are now being reviewed.

Toronto Islands

The Toronto Island Airport sits on the westernmost portion of Hanlan's Point, itself the westernmost of the Toronto Islands. Only two kilometres (1.2 miles) from the hustle and bustle of the city's financial core, the 14 islands, with their sheltered lagoons, ever-changing sand dunes, and stands of cottonwoods remain a unique sanctuary for city dwellers — in the words of M. J. Lennon (1980), author of *Memories of Toronto Island*: "10 minutes and 1,000 miles away".

When Governor Simcoe arrived in 1793 to carve the City of York out of the dense forest that lined Lake Ontario's shore,

The Toronto skyline still in sight, the islands offer a refreshing change of pace and scene

the islands were part of a 5.5-kilometre (3.5-mile) long peninsula that curved from the mouth of the Don River south and westward into the lake, where it formed a sheltered harbour. The peninsula was known to the natives as having curative powers; to Elizabeth Simcoe, these were her "favourite sands", to which she would retreat for healthy recreation — picnicking, painting or horseback riding.

Since the Simcoes' time the islands have continued to play a vital role in the recreational life of Torontonians. In the early 1800s, adventurous hunters and fishers used the peninsula to fish, trap muskrats, and shoot waterfowl. By 1833, Michael O'Connor had opened the first hotel — the Retreat; one of the hotel's selling points was its access by the first ferry — the horse-powered *Sir John of the Peninsula* — which eliminated the need for the arduous trek across the untamed mouth of the Don River. By the 1840s, fishermen's huts were scattered over the peninsula, and shortly thereafter, the first hardy homesteaders set up permanent camp.

Some ten years after the peninsula was severed from the mainland by a violent storm in 1858 to become "the Island", the City began to promote development there. The first summer house was built in 1872 by a prominent barrister, and thereafter many of Toronto's most distinguished citizens erected elaborate summer homes on Hanlan's Point and Centre Island.

Near the cottages at Hanlan's there was an amusement park; in the summer tens of thousands flocked daily to ride its roller-coaster, see the famous diving horse, watch baseball or lacrosse in the stadium or stroll along the boardwalk. The islands and the harbour provided endless opportunities for diversion — in the summer there was swimming, canoeing, rowing, fishing, and sailing, and in the winter, sledding, skating, and ice-boating.

The summer population of the islands expanded in the early 1890s when a tent community was erected at Ward's Island; by 1931, the City had allowed the tents to be supplanted by permanent dwellings. Thereafter, the number of year-round residents gradually grew, especially during the housing crisis following World War II, when additional dwellings were built on Algonquin Island.

In the 1950s, the islands had a "main street" on Centre Island, where there were hotels, a dairy, a barber shop, a hardware store, and a movie house. The three communities — Hanlan's, Centre, and Ward's — had community centres, sports teams, newspapers, and social functions. People lived on the islands year-round, sending their children to the Island School, commuting to the city by ferry in summer, tugboat in winter. There were people who lived on the islands, the man who delivered ice among them, who proudly claimed they hadn't been to the city more than a half-dozen times in their lives.

Just as the Toronto Islands have always been buffeted by the natural forces of wind and water that both shape and threaten them, they have been buffeted by human forces. For 150 years plans have been developed for the islands by successive city councils, harbour commissioners, and others. In the 20th century, most such plans envisaged dramatic changes in land use: apartment buildings linked to the city by tunnel and surrounded by parking lots, expressways running the length of the islands, or docks and warehouses for port activities.

In 1953, the newly created Metro Council developed the idea of turning the islands into a park and recreation area. Despite the vociferous arguments of island dwellers, by 1965 Metro had completed eviction procedures, compensated residents, and bulldozed 500 homes. The residents of the remaining 260 houses on Ward's and Algonquin islands decided to dig in and started a long and bitter fight to stay. Arguing that residential and recreational uses were not incompatible, the islanders fought eviction in the courts of law and public opinion.

In order to resolve the dispute, on 9 December 1981 the Province of Ontario introduced Bill 191, which was designed to allow the island community to remain until 2005. Ultimately, however, the Bill proved to be unworkable because it did not resolve such fundamental questions as ownership of the houses. In the fall of 1991, the Province gave notice that it would bring in new legislation for the islands, and that the legislation would create a Land Trust to act as landlord,and would permit as many as 110 new homes on the islands. Such legislation could help resolve the situation and provide much-needed security for the existing community.

Today's Toronto Islands are a rich, regional resource with lovely dunes and beaches, regionally rare plant forms, and varied fish communities.

Today's Toronto Islands are a rich, if somewhat under-used, regional resource. Their environmental resources include lovely dunes and beaches, regionally rare plant forms, and varied fish communities. The visitor can find clipped grass for picnicking and ball-playing, quiet lagoons in

Houses on Ward Island

which to watch turtles basking and night herons fishing, as well as opportunities for walking and bird-watching. There are active recreational facilities at Centreville, at the Long Pond rowing course on regatta days, and at the public marina and three yacht clubs.

Seven hundred people live in a vibrant, close-knit, car-free community on Ward's and Algonquin, and provide "eyes on the park". A water filtration plant services the city in the summer when water use is greatest. The live-in Island Natural Science School offers opportunities for Toronto students to spend an intensive week in natural science study. The Gibraltar Point lighthouse, built in 1808 on earlier orders from Governor Simcoe, stands as a historical link to the founding of the city, a reminder of the days when ship travel provided vital links between Toronto and the outside world. The lighthouse looks out over the island park to which Metro is trying to attract more visitors, a residential community poised for growth, and towards the evolving and changing waterfront of the City beyond.

Lower Don Lands

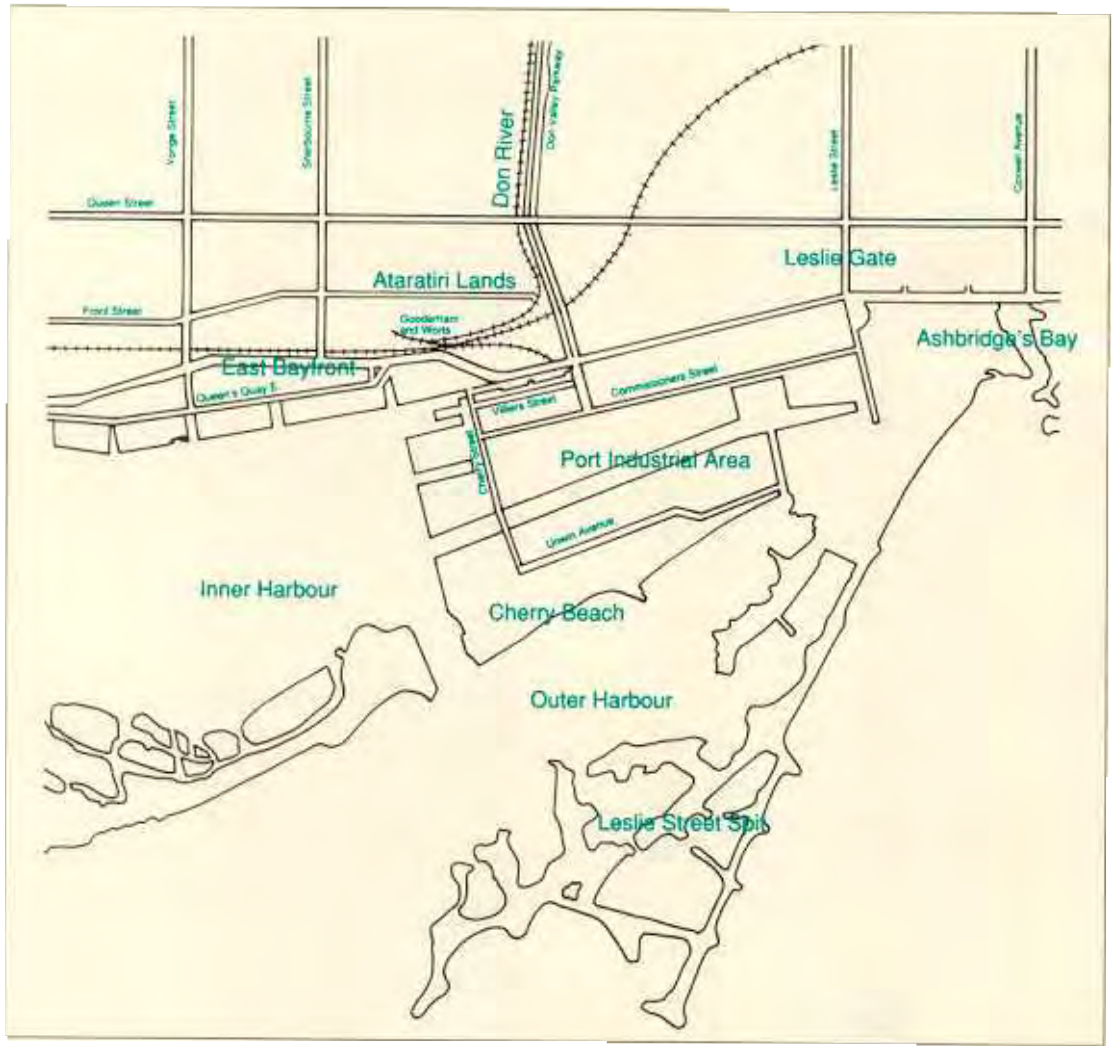
The Lower Don Lands are another sizeable part of Toronto's Central Waterfront that is clearly in transition. While usually thought of first in relation to shipping, heavy industry, bulk storage, and transportation, the Lower Don Lands have another side — a swath of green hugging the north shore of the Outer Harbour along Cherry Beach, to link up with the urban wilderness of the Leslie Street Spit.

Two hundred years ago, the Lower Don Lands could have been considered an ecological unit: they comprised the lower reaches of the meandering Don River, the estuary at its mouth, and the peninsula to the south. The banks of the Lower Don were lined with water-loving trees and shrubs and surrounded by a forest of mixed deciduous and coniferous trees. The forest helped recharging of groundwater, controlled the rate of flow into the Don, prevented erosion of the banks, kept feeder streams cool, and helped to maintain a diverse fish community.

The river was the source of drinking water for mammals in the area, as well as providing spawning and feeding habitats for fish and other forms of aquatic life. The estuary at the mouth of the Don, known for many years as Ashbridge's Bay Marsh, was an ever-changing landscape of marshy vegetation, islands, and open water; it provided habitats for mammals, birds, fish, amphibians, and reptiles. The waters of the marsh were protected from those of the open lake by the peninsula, a natural sand bar that was breached during a fierce storm in 1858 to create today's Eastern Gap and the Toronto Islands. With the advent of European settlement, the organic unity of the Lower Don Lands was gradually eroded; today, having lost sight of the whole, we tend to think of the lands in terms of their separate pieces, as defined by roads, rail lines, and concrete dock walls.

There are six main components: the Lower Don, Ataratiri, the East Bayfront, the Port Industrial Area, the semi-natural areas of the Leslie Street Spit and the Outer Harbour's north shore, and the parklands of Ashbridge's Bay. While the future of the Lower Don Lands is unclear, there is no doubt that the area is on the verge of dramatic change. This section presents one vision of what that change could encompass.

Map 10.10 Lower Don Lands



The boundary of the Lower Don River Valley is generally considered to be just north of the Bloor Viaduct. A great deal of the valley is used for utilitarian purposes — an expressway, two railways, an arterial road, utility right-of-ways, snow dumps, a few remaining heavy industries, transformer stations, and storage yards. Chain-link fences line the shores of the river, and log booms at its mouth contain the flotsam that surges down the river during rainstorms. Water and sediment quality in the river is poor, as is wildlife habitat. Access to the shores is limited and uninviting, and only a few hardy souls walk or cycle along it.

Ataratiri is the name given to lands bounded, roughly, by Eastern Avenue on the north, the Don River on the east, the CN railway lines on the south, and Parliament Street on the west. At present, the area is occupied by a number of industrial users including railway yards, warehouses, factories, and scrap yards. In July 1988, the City of Toronto entered into an

agreement with the Province of Ontario to develop 7,000 units of housing in the area, the City acting as planner and developer, and the Province as guarantor of funds necessary to acquire and develop the site.

The City now owns the entire 32.5-hectare (80-acre) site, having expropriated more than 40 private properties and having purchased the remaining third of the site from CP Rail and Canadian National Realty. Over the past three and-a-half years, the City has concentrated on the necessary planning needed to develop the land and design the future community. A great deal of time and money has been spent on assessing environmental conditions in the area and proposing solutions for the significant problems encountered there.

The East Bayfront is the area between the harbour and the Gardiner/Lakeshore Corridor between Yonge Street and Cherry Street. It is best characterized as a transportation corridor — a route to somewhere else, and currently not truly a "place". The East Bayfront is dominated by the Gardiner Expressway and Lake Shore Boulevard, which visually and practically cut off the areas to the north from the harbour.

Although the East Bayfront has been home to important port-related industry since it was created by lakefill in the 1950s, it has been declining for the last 30 years. Most marine terminals and wharfs are gone and the only remaining industrial uses are Redpath Sugar, and Lake Ontario Cement, together with the LCBO's storage and distribution facilities.

The Port Industrial Area lies south of the Gardiner/Lakeshore Corridor between Cherry and Leslie streets; it was built on lakefill placed in the former Ashbridge's Bay Marsh at the foot of the Don River, in accordance with the Toronto Harbour Commissioners' 1912 plan. The area was intended as Toronto's industrial heart — its link by ship, rail, and road to the outside world. That expectation was never fulfilled, however, when World War I and then the Depression intervened. Instead of being a manufacturing centre, the area came to be used mainly for bulk storage of coal, cement, and petroleum products. In recent years, many of the noisier, dirtier industries have left the area and it is ripe for change.

At the southern edge of the Port Industrial Area lies a thin strip of green, the semi-natural areas of the harbour's north shore; the western end is anchored by Cherry Beach, one of Toronto's cleanest beaches, which attracts bathers and boardsailers. Farther east, rowing and boating clubs hug the north shore and north of them is a vegetated strip of land through which the Martin Goodman Trail weaves. This area provides good-quality and varied habitat for wildlife, and attracts naturalists, cyclists, joggers, and walkers. Further east is the Leslie Spit, which was created by lakefilling. Left largely alone, the spit has evolved from a barren expanse of fill to become a rich and unique series of semi-natural habitats. A marina built by the THC to provide facilities for recreational boating protrudes into the Outer Harbour from the spit.

Left largely alone, the spit has evolved from a barren expanse of fill to become a rich and unique series of semi-natural habitats.

VICTORY SOYA MILLS

In 1943, industrialist E. P. Taylor was looking for a site on which to build a new soybean processing plant to alleviate the wartime shortage of fats and oils caused by food and petroleum rationing. He had been named president of Victory Mills Ltd., a new company created from the Sunsoy Products branch of Canadian Breweries Ltd. Victory Mills soon leased a site at the southeast corner of Fleet and Parliament streets, ideally placed to receive and send shipments by rail, truck or boat. The plant built there was designed to extract and process soybean, linseed, and other vegetable oils to create products for human and animal consumption, as well as other products that would be processed further by other industries to make such goods as glue, paint, printing ink, and soap.

Despite wartime and post-war shortages of materials, construction of the new plant began almost immediately on the land, owned by the Board of Toronto Harbour Commissioners. Concrete silos were built first so that stockpiled soybeans could be available for processing as soon as the screw-press and solvent-extraction processes were ready to go into production. These silos have presided over the eastern edge of Toronto's harbour ever since.

The plant officially opened on 27 March 1946, and in 1947, Victory Mills purchased the site, as well as an adjoining parcel, from the THC. Over the years, the plant changed ownership twice: in 1954, Victory Mills was sold to Procter and Gamble Co. and renamed Victory Soya Mills, and in 1980 the company was resold to Central Soya Inc. of Fort Wayne, Indiana.

The importance of this processing plant should not be underestimated: the fact that it had been built, combined with a concerted campaign to encourage farmers to grow soybeans, precipitated immediate growth in the soybean market. In 1940, Canada produced 6,000 tonnes (220,000 bushels) of soybeans; by 1953, that figure had risen to 120,000 tonnes (4.4 million bushels). Demand for soy products changed little during the 1950s and '60s, then surged again during the 1970s, when people became aware that the consumption of vegetable fats was healthier than that of animal fats. In 1990, 25,000 soybean growers in Ontario produced 1.3 million tonnes (47 million bushels) of soybeans.

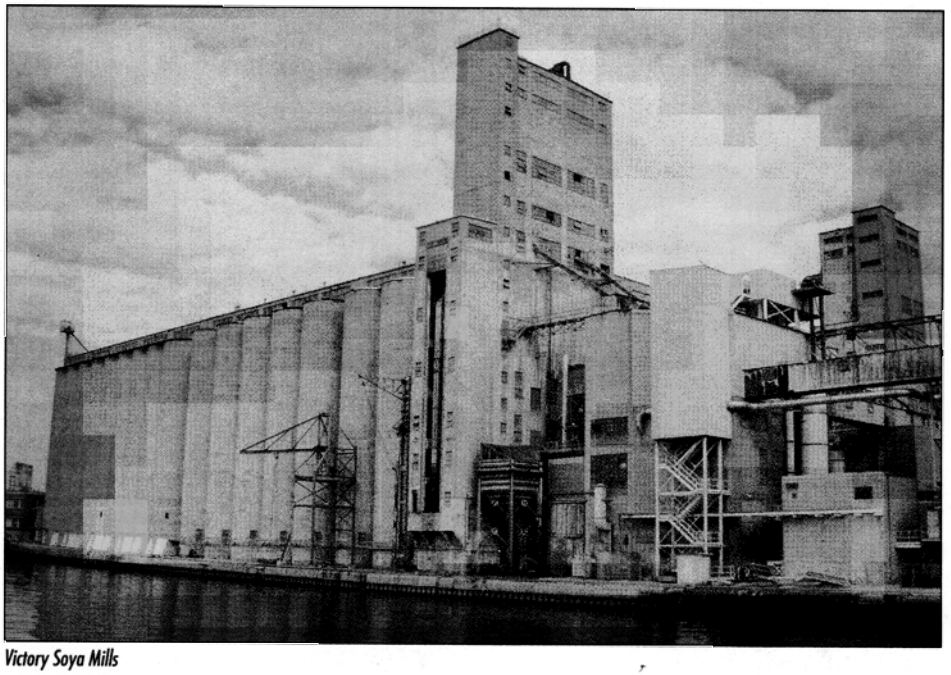
At the time it was closed in March 1991, Victory Soya Mills Ltd. was handling 400,000 to 540,000 tonnes (15 to 20 million bushels) of soybeans annually. The largest of three crushers in Canada, it processed soybeans into oil for margarine, cooking oil, and protein supplements for livestock feed.

Central Soya Inc. ceased plant operations, citing poor profits because of the Canada-United States free-trade agreement, government subsidies to a competing product (canola seed), and high municipal taxes.

Other conditions had also changed since E. P. Taylor carefully chose the plant's location: proximity to railroad and waterborne facilities is no longer advantageous in an era when road transportation dominates the movement of goods. Moreover, the Toronto waterfront was so developed that the plant was plagued with traffic problems.

To date, the site has not been sold. It is not hard to imagine what will happen when it is: now on the edge of the city core, the site will be redeveloped. The question is whether a way can be found to build for the future without razing our industrial past.

Sources: Stinson, J. and M. Moir. 1991. Built heritage of the East Bayfront. Environmental audit of the East Bayfront/ Port Industrial Area phase II, technical paper no. 7. Toronto: Royal Commission on the Future of the Toronto Waterfront. Draft.



Victory Soya Mills

East of Leslie Street is the Main Sewage Treatment Plant, a major employer in the area, and currently the subject of upgrading and expansion plans. The remainder of the Lower Don Lands — the lakefill parklands known as Woodbine Park and Ashbridge's Bay Park — are separated from the rest by Coatsworth Cut and the sewage treatment plant and are also disconnected from the residential neighbourhoods to the north. However, these parks, which include a marina as well as attractive landscaped areas in which to play, relax or picnic, are well linked to the Beach farther east by a boardwalk and greenspace.

Most of the Lower Don Lands are in limbo, with many former activities gone or in decline, and many recent studies and plans, in varying stages of completion, directed towards revitalizing this strategically placed area of the City.

In September 1991, in keeping with its plans to develop housing in Ataratiri, the City released its assessment of the environmental conditions in the area, along with a Part II Official Plan Proposal. The City has also addressed the Lower Don Lands in its

Cityplan '91 process and in the Gardiner Expressway East/Don Valley Sweep Civic Design Study (1990). The City of Toronto's Task Force to Bring Back the Don released its vision for the Lower Don Valley in August 1991.

Metro has made several studies of transportation in the Lower Don Lands (among them the Waterfront Transit Light Rail Extensions Feasibility Study (1990), and the Long Range Rapid Transit Network Study, which is a background study for Metro's new Official Plan); in addition, there is the *Revised Report on Metropolitan Interests in the Port Area*, development of a new Metropolitan Waterfront Plan, proposals to convert the Commissioners Street incinerator to an expanded recycling and transfer station, and Metro's environmental assessment for the Main Sewage Treatment Plant, in conjunction with a comprehensive report on the metropolitan sewage system.

The private sector is also active in planning for parts of the Lower Don Lands. For example, studies and proposals have been made for the Gooderham and Worts site, adjacent to Ataratiri; LeslieGate at the northeast corner of Lake Shore Boulevard and Leslie Street; expansion of the Lever Brothers property at the foot of the Don Valley Parkway; and several large sections of the Port Industrial Area, including St. Lawrence Park in its northwest corner, and Castlepoint at Polson Quay.

The THC prepared its Port Industrial Area Concept Plan in 1988 to foster economic development of this area, improve public access, and ensure the Port's future. A joint study of the economic impact of the Port of Toronto on the City of Toronto and surrounding jurisdictions was recently conducted by the Province, Metro, the City of Toronto, and the THC.

The roles of the THC and the Port of Toronto have also been studied extensively by the Royal Commission. Early in its mandate, the Commission realized it was time to formulate a new vision of the East Bayfront/Port Industrial Area. Because of concerns about pollution in the area, in its first interim report, the Commission recommended that an environmental audit be carried out on the lands. To protect the integrity of the Commission's study, on 17 October 1989 the Government of Ontario designated the area as one of Provincial Interest under the Planning Act. The process used to undertake the environmental audit was the Commission's first attempt to put the ecosystem approach into practice; the result was a persuasive example of how effectively this approach can be applied to research, analysis, and interpretation of information.

The Environmental Audit Process

The environmental audit of the East Bayfront/Port Industrial Area was conducted from November 1989 to December 1991. Its purpose was to develop the best possible description and understanding of the environmental conditions in the East Bayfront/Port Industrial Area (within the inevitable limits of time and budget). It should be emphasized that this environmental audit was done before any decisions were made about future land uses — itself a radical departure from the norm.

Most land-use planning starts with a piece of land. In time, a developer comes along with an idea for a project — a condominium, an office tower, a mall — to put on

that piece of land and if the environment is considered, it is through an environmental assessment of the project. The proponent considers what impact the project will have on the environment, and how that impact can be reduced or mitigated. One of the drawbacks of that way of planning is that it can lead to inappropriate uses of land.

By contrast, the environmental audit's first priority was to collect information on environmental conditions so that better decisions could be made later. In fact, the environmental audit team was not involved in decision-making about the future of the East Bayfront/Port Industrial Area: with the environmental information before them, however, others would be able to make fully informed decisions about land use.

A second fundamental difference in the Commission's environmental audit was its use of the "ecosystem approach" as a framework for research, analysis, and interpretation of information. As discussed earlier, the ecosystem approach focuses on relationships and examines how an area influences, and is influenced by, areas outside it. It also examines the effect of human actions on the ecosystem and, conversely, the possible effects of ecological conditions on human health. The ecosystem approach allowed the Commission to move beyond the compartmentalizing of traditional environmental management: instead of examining the state of the environment, the audit examined the state of the ecosystem.

In order to measure ecosystem health in the East Bayfront/Port Industrial Area, the team had to develop criteria, appropriate for the area, and for which information was available. Criteria and indicators used elsewhere were reviewed, including those in the Great Lakes Water Quality Agreement, the healthy cities concept, the Ecosystem Charter developed by the Rawson Academy, the Metro Toronto Remedial Action Plan goals, and the principles set out in *Watershed.*

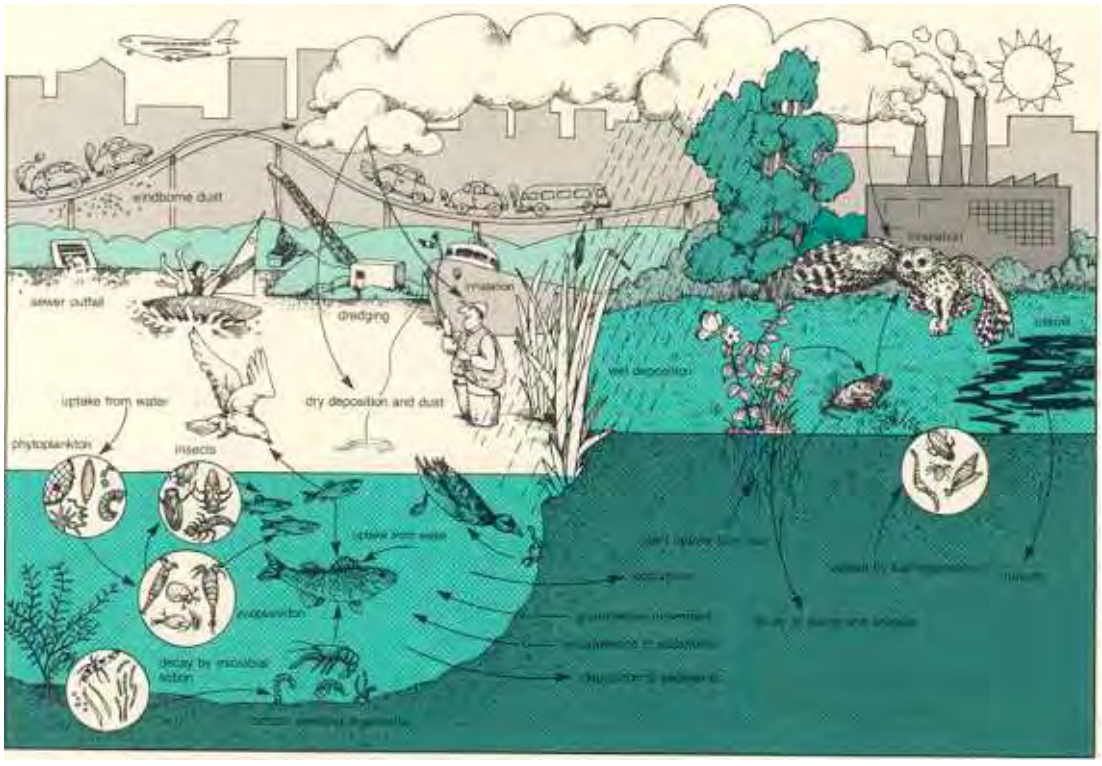
The ecosystem approach allowed the Commission to move beyond the compartmentalizing of traditional environmental management: instead of examining the state of the environment, the audit examined the state of the ecosystem.

Because humans are recognized as an integral part of the ecosystem, some criteria selected by the team were human-centred (anthropocentric) as well as biocentric. The criteria used included:

- habitat diversity, quantity, connectedness, and quality for wildlife;
- diversity and abundance of wildlife species;
- complexity of the food web;
- the presence of introduced species;
- adequate reserve of nutrients;
- levels of toxic chemicals in the ecosystem;
- effects of toxic chemicals on humans and wildlife;
- levels of dust, odours, and noise;
- variety, quality, and accessibility of opportunities for human activities;
- safety from environmental hazards;
- connectedness with the past; and
- aesthetics (urban form, perception of environment, natural features).

The way the audit was conducted was a third departure from the norm: in Phase I,

Figure 10.2 Ecosystem pathways



five work groups of experts collected existing information (and produced technical papers) on the atmospheric environment, water, soils and groundwater, natural heritage, and built heritage. During Phase II, working under the overall direction of a steering committee, seven work groups undertook further research to fill many previously identified gaps in data; they produced technical papers on the atmospheric environment, built heritage, hazardous materials, natural heritage, soils and groundwater, water and sediments, and ecosystem health.

In carrying out the audit, the Royal Commission was able to draw upon a wealth of talent and expertise. 93 people were involved in the steering committee and working groups: 53 public servants from four levels of government and agencies; 18 citizens from non-governmental organizations; seven from universities; three representing industry and labour; and 12 consultants from different fields. The work groups included staff from the federal and provincial governments, Metropolitan Toronto, and the City of Toronto. Also represented were the Toronto Harbour Commissioners, the Toronto Historical Board, the South East Toronto Industrial Awareness Organization (SETIAO), the Metropolitan Toronto and Region Conservation Authority, a number of community and environmental organizations, and ambulance, fire, and police services.

Significant effort went into attempts to integrate the results of the various working

groups. Periodic meetings allowed members from different disciplines to interact and share information. Linking up these work groups were two "integrators", to ensure that work group members from each discipline recognized how its findings related to the concerns of others. For example, the integrators might ask members of the air group how air quality is affected by soil, industry, and transportation, or how it affects soil, water, wildlife or humans. The integrators later synthesized and interpreted all the information collected by the various disciplines, and the results were published in two reports, *Environment in Transition* (1990), which covered Phase I of the audit, and the audit's final report, *Pathways* (1991).

CHALLENGES AND OPPORTUNITIES IN THE LOWER DON LANDS

Many of the characteristics connecting different parts of the Lower Don Lands to each other can be considered both challenges and opportunities. The areas:

- share an interesting history;
- are generally underused;
- lie predominantly in the floodplain of the Don;
- have similar environmental problems;
- have poor links to the rest of the City; and
- for the most part, are owned publicly.

Over the last two centuries, human activities have dramatically shaped the physical environment of the Lower Don Lands. Where one now finds recycling plants or cranes, there was once a fertile marsh at the mouth of the Don River. Two hundred years ago natives fished with spears by lantern light in the Ashbridge's Marsh. European settlers caught fish, muskrats and turtles there, and market gunners shot fowl for the citizens of York. Simple frame cottages hugged the Lake Ontario shore.

The industrialization of the Lower Don Lands began in 1831, when James Worts came from England and established a grist mill at the eastern end of the harbour; the following year, Worts's brother-in-law William Gooderham arrived in York. The two went into business together and, in 1837, converted their flour mill to a distillery. As Gooderham and Worts, it operated until 1990, and left behind a cluster of industrial buildings of great historical and architectural value — one of the most important historic sites in Toronto.

By the 1880s, Ashbridge's Marsh was polluted from untreated human, animal, and industrial wastes, and its condition was becoming a civic concern. In response to the problems in the marsh and ongoing navigational problems in the harbour, the newly formed Toronto Harbour Commissioners (THC) drew up a plan to reclaim the northeast corner of the harbour and the marsh. The plan, unveiled in 1912, featured state-of-the-art docks, broad tree-lined avenues, and modern factories linked to the outside world by ship, rail, and road. The Port Industrial Area was to be Toronto's industrial centre, on land created from sand dredged from the bottom of the lake by the *Cyclone*, a massive dredge in what was considered one of the great engineering feats of its time.

The meandering Lower Don River was straightened and confined to a concrete channel, with a new mouth, an abrupt right-angle turn into the Keating Channel and

ASHBRIDGE'S BAY

Ashbridge's Bay, once one of North America's most important wetlands, was named after a family who came from Pennsylvania to the Town of York in 1793 and settled on the east bank of the Don River near the outflow into the bay. Today all that remains of the once-vibrant marshlands are the memories set down by hunters and naturalists who used the 520-hectare (1,285-acre) marsh.

When the Ashbridge family received its grant of land, the bay was a patchwork of large and small ponds with weedy lagoons, bogs and islands of bulrushes, water-lilies, arrowhead, marsh marigolds, cane grass, and duck weed. The Don River meandered through the delta marsh it had helped create. Shallow warm water, nutrients from the Don, and lush vegetation created ideal habitat for hundreds of species of wildlife. Early settlers "saw ducks so thick that when rising from the marsh they made a noise like thunder" (Barnett 1971).

The bounty of the marsh provided the small settlement of York with wild game. Less than a century later, with the invention of the breach-loading shotgun, hunters were able to slaughter wildfowl by the hundreds. Frank Smith, a member of the Toronto Ornithological Club from 1942 until his death in 1965, recalled how Bill Loam, a market shooter who made his living hunting and fishing in the marsh, would "come into his boathouse at night with the boat so full [of ducks] that there wasn't room for one more" (Fairfield 1991).

Frank Smith himself hunted in the marsh and said:

> I have seen thousands of Muskrat houses built in it at one time and am safe to say that as many as ten to twelve thousand rats would be taken in one spring. . . . It was a problem catching Mud Turtles. The best way was undressing and taking a sack, walk in the water up to your armpits and when you stepped on a turtle you would duck under, get him and put him in the sack [sic]. I have taken as many as seventy-five to a hundred in one day in this way and sold them in the market for turtle soup (Fairfield 1991).

In the 1850s, storms broke through the sandy peninsula that separated the marsh from the lake, creating the Toronto Islands. Subsequent erosion problems induced the City in 1890 to build a breakwater on the western edge of the marsh, closing water circulation between marsh and harbour.

Sealed off from the lake, and the recipient of large quantities of industrial, human, and animal wastes, particularly from Gooderham and Worts's cattle byres, the bay became stagnant and polluted. Coatsworth Cut was opened at the east end of the marsh to improve circulation but a more permanent solution was proposed: fill the marsh to create lakefront industrial land.

In 1912, the City accepted plans by the Toronto Harbour Commissioners, and by 1930 garbage, building rubble, and sediment dredged from the harbour covered most of the marsh. The remainder was filled in the 1950s to make way for the Main Sewage Treatment Plant. Ashbridge's Bay, once home to a complex and rich wildlife community, has been replaced by salt and coal storage, oil tanks, industrial buildings, and vacant lots.

Nonetheless, thanks to benign neglect, a wide variety of plant and animal species have colonized these vacant lots and the north shore of the Outer Harbour. Together with the natural communities on the Leslie Street Spit and the hoped-for rehabilitation of the mouth of the Don River, these natural areas in the Port Industrial Area would symbolically revive the natural heritage buried beneath the soil.

Sources: Barnett, J. M. 1972. *"Ashbridge's Bay."* Ontario naturalists 9(7); Fairfield, G. (ed). 1991. *Ashbridge's Bay.* [Unpublished manuscript].

Inner Harbour. The river delta was replaced by new industrial lands, with docks, a ship channel, and a turning basin, as well as road and rail connections to the rest of the City.

Creation of the East Bayfront started much later, in the 1950s, after complicated negotiations among the Harbour Commissioners, the City, and the railways. The new land was used for docks, wharfs, and shipping-related industries, such as Redpath Sugar.

The physical restructuring of the Lower Don Lands continues today. Additions are still being made to the Leslie Street Spit, the four-kilometre (2.5-mile) long peninsula created from lakefill and begun in the early 1960s as a protective breakwater for an Outer Harbour. It soon became clear that Toronto had no need of a second harbour, and the spit has developed through natural succession into a rich wilderness area. The most recent land creation project in the Lower Don Lands is the Outer Harbour Marina, begun in 1986, to provide mooring slips for recreational boats, and a marina centre at the base of the breakwater.

Ashbridge's Bay with Toronto in the background

Though the splendour of the THC 1912 plan has faded, a rich industrial heritage remains: the plan's "armature" — the docks, bascule bridges, Ship Channel, bridges, railways, and roads — still forms a strong pattern on the land. Large structures such as silos, cranes, chimney stacks, and fuel storage tanks are dominant landmarks evoking past and some present industrial activities. The Gooderham and Worts buildings, the Palace Street School at the corner of Front and Cherry streets, and the former Bank of Montreal on Cherry Street are unique and worth preserving for their architectural merit. The industrial heritage manifested in the area's infrastructure and built form — in the grand scale of Commissioners Street, the pattern made by docks and seawalls, the cranes and tanks — should be treated with respect and, where possible, be used as the basis for future development.

The industrial heritage manifested in the area's infrastructure and built form — in the grand scale of Commissioners Street, the pattern made by docks and seawalls, the cranes and tanks — should be treated with respect, and used as the basis for future development.

The location of the Lower Don Lands is still strategic — minutes from downtown Toronto — but the area is underused, shabby, and neglected. Expropriations in Ataratiri have left blocks of empty buildings. Many industries, once long-term tenants in the East Bayfront/Port Industrial Area, have also departed, leaving behind empty structures or barren lots. On average, Toronto's industrially designated lands provide jobs for 79 people per hectare (32 people per acre); by contrast, density in the Port Industrial Area is only 11.6 employees per hectare (4.7 employees per acre).

The Lower Don Lands also provide a wide range of recreational activities: sailing, rowing, and boardsailing clubs cluster along the north shore of the Outer Harbour, larger boats are moored at the Outer Harbour Marina and Ashbridge's Bay Park, and Cherry Beach remains one of the Central Waterfront's cleanest for swimming. Naturalists haunt the area, while joggers, hikers, and cyclists use the Martin Goodman Trail, and some venture up the Lower Don Valley. Nonetheless, many of these recreational amenities are underused, in part because access is difficult and unattractive.

Virtually all the Lower Don Lands lie in the floodplain of the Don. If there were another regional storm of the magnitude of 1954's Hurricane Hazel, large parts of the area would be flooded to a depth of as much as one metre (three feet) of water, with some places being affected even more seriously. Modelling undertaken for the Ataratiri Environmental Evaluation Study showed that almost 3,800 dwelling units, and more than 900 businesses employing more than 23,000 people, are vulnerable to flooding in the Lower Don floodplain.

Under the Flood Plain Planning Policy Statement issued by the ministries of Natural Resources and Municipal Affairs, new development that is susceptible to flood damage is not normally permitted. However, municipalities may apply for special policy area status that allows controlled development in areas where new development cannot be restricted. The City of Toronto has applied for a special policy area in the Lower Don floodplain to permit development

Map 10.11 Lower Don flood plain

of Ataratiri, and a variety of measures are being considered to reduce the flood risk there.

The Lower Don Lands share other environmental problems: in many places, soils are contaminated with heavy metals and organic chemicals, in part because of the way lakefilling was done. For example, the Port Industrial Area was created from construction debris, sewage sludge, incinerator ash, and municipal garbage, as well as from sand. Construction of the Leslie Street Spit utilized earth fill from downtown Toronto (some of which was undoubtedly contaminated), and also rubble, incinerator and fly ash, and crushed battery casings. In the rail corridors, the Ataratiri lands, and the Port area, problems were compounded by spills, leaks, storage, and disposal of hazardous materials. When soil is contaminated, it is likely that the groundwater beneath it is contaminated as well.

The environmental audit of the East Bayfront/Port Industrial Area found some contamination of soils and/or groundwater at 27 of the 28 sites studied by the Royal Commission and by others (out of a total of 123 sites in the area). Although it is difficult to generalize — types and levels of contaminants vary greatly from site to site and across individual sites — these studies show that the soils and groundwater at some places are heavily contaminated. The MOE's clean-up guidelines are exceeded for a number of heavy metals: while there are no provincial guidelines for specific organic compounds, studies show that benzene, ethylbenzene, toluene, xylene, PAHs, and PCBs are present. At some sites, groundwater is contaminated with heavy metals and organic compounds as well as with free-phase floating petroleum products.

According to the *Ataratiri Draft Environmental Evaluation Study Report*

(Clarkin 1991), soil samples from more than 250 places in Ataratiri showed that about half the area does not currently meet guidelines for housing, commercial or industrial uses. Pollutants include metals, organic compounds such as polychlorinated biphenyls (PCBs), and coal tar. The highest levels of contamination occur in the western part of the area, where a coal gasification plant operated until the 1950s.

As in any industrial area, several thousand hazardous materials are used, stored or transported in the Lower Don Lands. Although there is insufficient information available to assess risks posed by these hazardous materials, the environmental audit showed that, in the past two years alone, 73 spills and fires involving hazardous materials were recorded in the East Bayfront/ Port Industrial Area.

Because the area is dominated by industry and transportation, air quality is poor in the Lower Don Lands. Odours from industry and the sewage treatment plant are a problem for nearby residents, and fugitive emissions of dust, volatile organic compounds, and metals from industry and traffic are a concern. Near the Gardiner/ Lakeshore Corridor and the Don Valley Parkway, preliminary modelling indicates that exceedances of provincial guidelines are likely for carbon monoxide, suspended particulates, and dustfall. Little is known about emissions or levels of trace organic compounds in the air.

Smog, including ground-level ozone, is a problem in the Lower Don Lands, as it is across southern Ontario, especially on sunny days in the late spring and summer.

In both Ataratiri and the Port Industrial area, noise is high enough to be a concern for residential use, but can be reduced to acceptable levels through building design and other measures. The major sources of noise are the traffic in the transportation corridors and, in the Port area, take-offs and landings from the Toronto Island Airport.

The levels of dust, odours, and noise along the north shore of the Outer Harbour are lower than in the industrial areas because so much of it is in recreational land uses.

In the Lower Don, Keating Channel, Inner Harbour, Ship Channel, and Turning Basin, water quality is poor and bottom sediments are contaminated with nutrients, heavy metals, and organic chemicals. Few fish can live in these waters, although overwintering waterfowl congregate there because the water is warmer than elsewhere.

The water quality in the Outer Harbour is generally better than in the Inner Harbour, and sediments are cleaner. Unlike other Toronto beaches, Cherry Beach is rarely "posted", warning people not to swim.

Toxic chemicals are found in aquatic biota including benthic organisms, fish, and aquatic birds. There are restrictions on eating some sizes of eight species of fish found in the Lower Don Lands.

On land, the north shore of the Outer Harbour, the Leslie Street Spit, and several vacant lots in the industrial area have a variety of natural and semi-natural areas including beach and gravelly shorelines, wet meadows, open fields, willow thickets, stands of cottonwoods, and other habitats.

Thanks mostly to benign neglect, these areas have evolved to contain a mosaic of habitats in different stages of succession, providing excellent areas for breeding and migrating wildlife. Information collected for the environmental audit shows that they

support a fairly complex food web: in the north shore area alone, there are some 330 species of plants, 260 of birds, 19 of fish, 12 of mammals, two of amphibians, one of snake, and 27 of butterflies. Similar numbers have been recorded for the Leslie Street Spit.

In contrast, the industrial areas of Ataratiri and the East Bayfront/Port Industrial Area are characterized by few kinds of habitats. Most are poor-quality — the occasional field between roads, parking lots, and industrial or commercial buildings. As a result, they support limited wildlife and a simple food web.

Moreover, although there is good-quality wildlife habitat, particularly in the southern parts of the Lower Don Lands, the spatial connections among habitats are poor. This is the case in east-west connections and, even more, in north-south connections with the important Don Valley corridor.

Links for human movement in the Lower Don Lands are just as poor as the wildlife habitat connections. The Gardiner/ Lakeshore Corridor effectively severs lands to the south from residential areas to the north. The Port Industrial Area is further cut off from the City by the Keating Channel. The Ataratiri area is effectively a cul-de-sac, constrained on three sides by the railway lines, the Don River, and the Adelaide Street ramps to the Don Valley Parkway.

Much of the land in the Lower Don Lands is publicly owned. The major landowners in the Port Industrial Area are the THC, Metro Toronto, and Ontario Hydro. The Liquor Control Board of Ontario and the Ontario Provincial Police are landowners in the East Bayfront; CN and CP own the railway corridor and the yards south of Ataratiri. Ataratiri lands are now owned entirely by the City of Toronto.

In summing up the ecosystem health of the Lower Don Lands, it is fair to say that the area poses both significant challenges and opportunities for regeneration. The serious problems of contaminated soil and groundwater, air and water pollution, flood potential, dust, and noise must be addressed if the ecosystem is to be restored to health.

There are still significant gaps in our understanding of the environmental conditions in the area — gaps that must be filled. Moreover, jurisdictional, regulatory, and planning issues include a number of institutional obstacles that have contributed to environmental degradation and are roadblocks to remediation.

An Integrated Plan for the Lower Don Lands

In light of the challenges and opportunities in the Lower Don Lands, and the many studies and plans for individual parts of the area, it became obvious to the Royal Commission that an integrated plan is needed; piecemeal planning cannot deal effectively with issues such as flooding and soil contamination, rehabilitation of the Don River, access, and the need to stimulate economic recovery. An integrated plan would make it possible to:

- retain and enhance natural and built heritage;
- increase the diversity and intensity of uses;
- reduce the risk of flooding;
- share technologies for soil cleaning;
- share programs to monitor air pollution;
- improve links to the rest of the City;

Marsh and woodland habitat along the north shore of the Outer Harbour

- ensure that publicly owned lands are used for the maximum benefit of society;
- integrate the various planning exercises now under way; and
- assist economic recovery in the region.

Such an integrated approach would allow effective (and cost-effective) solutions that might not be appropriate or possible in planning for only one part of the Lower Don Lands. Integrated planning for the area allows consideration of the whole, rather than of a number of disjointed parts, by multiple agencies with different agendas and priorities.

The Ataratiri project is an illustration of the pitfalls of starting with a chunk of land and setting out to create a "project" on it — without integrated urban planning and in the absence of a sound initial understanding of environmental conditions. Ataratiri is economically handicapped, encumbered by the costs of land purchased at the peak of the real estate boom; in addition, before it can proceed, millions of dollars will have to be spent for soil clean-up and flood-proofing. The greatest encumbrance, however, may well be the "mega-project" mentality: the inflexible, "all or nothing", predominantly single-use approach to development.

It may be tempting to view the Ataratiri site as if a single industry were simply being removed from an area that never had an urban pattern. But this land was once a piece of the city: it had streets, uses, activities, and history. Therefore, it makes little sense to treat it all at once and comprehensively. It would be better to develop housing in the area in a flexible, evolutionary way, as the "renovation" of an existing neighbourhood. Using this approach, changes would occur and improvements would be made, but the existing fabric would not be entirely eradicated. Life in the area would go on,

while regeneration took place. Such gradualism may be frustrating to those who have a strong desire to see everything done "up front" but it does get the job done, in a more organic and economical way.

Such a flexible and incremental approach to development should be applied throughout the Lower Don Lands, within an overall framework that includes:

- improvements to environmental health, including a "green infrastructure" of civilized streets, parks, squares, recreational facilities, and green links; a flood management strategy; and remediation of air, water and soil;
- a transportation plan that provides for the needs of those outside the area while respecting the needs of those inside it (i.e., provides a balance between "corridor" and "place");
- a balance of land uses — residential, industrial, commercial, passive and active recreational — that integrates work and living places;
- a shared vision for economic development of the area, including clearly identified opportunities for private-sector participation and investment; and
- an integrated review and approval system.

Environmental Health

Given the environmental problems in the area, and current understanding of the need for a healthy environment, planning for the Lower Don Lands should begin with a strategy to restore environmental health. It would have four primary purposes: to lay out a "green infrastructure" of parks, open spaces, and green links; to address the environmental problems facing the area; to minimize the impact of development on the environment; and to retain the area's natural and built heritage. A plan can be built on the knowledge accrued in the many studies and planning processes that have taken place in recent years.

A restored, cleaner Don River is central to this green framework; many of the water quality improvements will come from work to be carried out throughout the watershed under the Metro Toronto Remedial Action Plan; the Task Force to Bring Back the Don has laid the groundwork for physical changes that would improve access, aesthetics, and habitat, and contribute to improved water quality. (They are described in "Healing an Urban Watershed: The Story of the Don".)

In the Task Force's plan, the upper reaches of the Lower Don would become the Rosedale marshes; a small stone weir would create a marsh headpond; side ponds would be dredged to create marshlands for fish habitat. The floodplain would include a

> **The city contains in its form and functioning the traces of our history and of our collective memory; it holds the potential through which we can shape visions of our future. The strength of networks and partnerships lies in their potential to step outside the structures of conventional wisdom and the pattern of standard problem solving to formulate new problems and to articulate new opportunities.**
>
> Jacobs, P. 1991. *Sustainable urban development.* Montreal: Third Summit of the World's Major Cities.

The Lower Don

mixture of wetlands, meadows, and forested slopes. Revegetation of the side ravines would improve wildlife habitat, and trails would encourage passive recreational uses such as hiking and nature study. South of the new marshes would be the more formal, urban character of the channelized river: the water's edge would be richly landscaped with trees; stairs and ramps would provide access to widened pathways, separated from the railways by dense plantings.

The improved Lower Don would get a new mouth, in the Port lands south of the one that exists, with a gradual curve opening up to a re-created estuary. The delta and marsh would provide new habitat for aquatic life, passive recreational and educational attractions for people, and a wonderful setting for other uses. A wildlife corridor would continue south from the Don's new mouth to link with natural areas along the north shore of the Outer Harbour. Varied habitats there would be protected and enhanced, and would be linked to the extensive natural areas on the Leslie Street Spit.

Green corridors would be wide enough to provide buffers between wildlife and human uses, and native plantings would be used to encourage ecological development of vegetation. Newly linked parks and green spaces in the East Bayfront would provide western connections between Harbourfront's public areas and the Don River green corridor. On the Lower Don Lands' eastern side, green links would improve what is now an unsatisfactory tie to the lovely recreational areas of Ashbridge's Bay Park and the Eastern Beaches beyond it.

One of the major environmental problems affecting almost the entire Lower Don Lands area is the potential for flooding. While it is hardly a new concern, attempts to deal with it over the years have been "band-aid" solutions: encasing the river in concrete (to reduce erosion and speed the flow of

water), restricting new development in floodplains, and building berms do not address the root causes of high peak flows. Flooding has been exacerbated because the Don is used as a sewer to carry stormwater generated throughout the watershed.

An ecosystem approach to the flood problems on the Don would incorporate watershed-wide measures to reduce stormwater flow into the river. This fits with the goals and principles adopted under the Metro Toronto Remedial Action Plan, which includes measures such as use of stormwater detention ponds and redirection of residential downspouts from storm sewers to lawns. These may take longer to implement than other solutions, but they are probably cheaper, more equitable, and more beneficial in the long term.

Modelling shows that a severe storm would flood an area extending east from Yonge Street to a point past Greenwood Avenue, and would include most of the Port Industrial Area and the lands north to King Street. Obviously, there is a need to protect existing and proposed development in the Lower Don floodplain. The studies done for Ataratiri have identified a minimum flood protection package that would be needed before development could proceed; it includes placing fill on part of the Ataratiri site, widening the openings of four bridges over the Don, and constructing a floodway on the west bank of the Don River north of the Keating Channel. The costs of such measures should be borne by those who benefit from them.

Any plan to redevelop the Lower Don Lands must deal with the issue of contaminated soil and groundwater. A remediation strategy should be created for the entire area, building on the Royal Commission's environmental audit, and the City of Toronto's Ataratiri Environmental Evaluation Study.

An integrated soil and groundwater management strategy for the Lower Don Lands will allow clustering of sites for clean-up and an incremental approach, rather than one that insists on doing everything, everywhere at once. Clusters of sites should be identified on the basis of similar kinds and degrees of pollution, the potential for migration of contaminants from one site to adjacent ones or to nearby surface water, and expected future uses. Careful consideration should be given to the depth of soil to be remediated and appropriate standards of clean-up in relation to future built form, landscape types, range of activities, and likely health risks. The strategy should:

- be based on comprehensive, numerical clean-up guidelines that can be applied to the entire area, and that are appropriate for the intended end uses;
- be developed after a thorough review of information on the techniques available for clean-up of soils and groundwater, including work being undertaken by the Toronto Harbour Commissioners;
- ensure that detailed, site-specific investigations of soil and groundwater are undertaken prior to sale, lease or redevelopment of parcels of lands, and before decisions are made on the amount and type of remediation required;
- include the research needed to provide a better understanding of groundwater movement and contamination sources; and

include an investigation of soil and groundwater quality in the natural areas along the north shore of the Outer Harbour and the development of an appropriate soil management strategy for these areas.

There are, as well, economies of scale that can be realized by considering the problem of soil and groundwater contamination on an area-wide basis. In addition, the potential exists to turn a challenge — the need to treat contaminated soil — into an opportunity. A soil treatment facility located in the area could decontaminate soils from across the Lower Don Lands and anchor development of soil cleaning expertise and technology that could be exported elsewhere.

The environmental audit raised many questions about air quality, questions that are applicable to the entire Lower Don Lands area. For example, it recommended that studies be conducted to assess noise levels, levels of toxic contaminants in air, and air quality in the vicinity of the traffic corridors. Such studies should be carried out for the area as a whole, and planning should include measures to reduce noise and improve air quality throughout the area.

Development of the Lower Don Lands should be designed to improve environmental conditions and minimize harmful effects. This would include such measures as:

decommissioning and cleaning up plants, equipment, buildings, storage tanks, and underground pipelines; designing buildings and landscaping to improve microclimatic conditions and reduce energy use for heating and cooling;

- promoting access to public transit and providing liveable, pedestrian-oriented places;
- taking measures to reduce the quantity and improve the quality of urban stormwater run-off;
- encouraging natural landscaping that provides wildlife habitat and reduces the energy, chemicals, and water needed to maintain manicured landscaping; and
- requiring industries remaining in or coming into the area to use best possible management practices to control dust, noise, and odours, to deal with stormwater, as well as with hazardous materials, and to ensure workplace health and safety.

An environmental strategy for the Lower Don Lands area should build on the full potential of the natural and built heritage of the area. Existing wildlife habitats should be restored, protected, and enhanced, with connections improved between and among the Don Valley, Cherry Beach area, Leslie Street Spit, and Ashbridge's Bay.

Buildings of architectural or historical merit should be retained and reused whenever possible; and important aspects of the area's industrial heritage should be integrated into redevelopment. These measures will help the evolution of a distinctive place with memory, variety, and depth, where buildings, patterns, and structures of all ages co-exist, and natural habitats flourish.

TRANSPORTATION

As outlined in the section "Place and Corridor", the Royal Commission has recommended a program to integrate environment, land use and transportation in

the Central Waterfront. Such a program would serve both regional and local needs, including the relocation and redesign of the Gardiner, improved public transit, and the establishment of city blocks and local streets in areas that are now just large chunks of land.

The transportation plan for the Lower Don Lands should mesh with the overall plan for the Central Waterfront, and strike a balance between the transportation needs of those outside the area and those within it. This would include, for example, maintaining the railway line that serves Redpath Sugar. It should address the need to improve north-south links from the Lower Don Lands to the residential areas to the north, improve access by local public transit, and improve routes for cyclists. With better connections and improved aesthetics, the Martin Goodman Trail will become part of the Waterfront Trail.

A redesigned Gardiner/Lakeshore Corridor will make possible a more interconnected and people-oriented urban street network with the necessary traffic capacity, create an appropriate framework for redevelopment, and improve the quality of streetscapes in the area. The Ataratiri Part II Official Plan Proposals recommend a pattern that incorporates existing streets and subdivides larger blocks to provide a finer-grained, more liveable framework for redevelopment.

It would be possible to build a Cherry Street GO station on a downtown LRT loop linked to a GO station at Garrison Common, to serve regional commuters. Improvements in local transit could include an eastern extension of the Harbourfront LRT, and improved bus service.

The other important transportation facility in the Lower Don Lands is the Port of Toronto. The Royal Commission has given a great deal of attention to this issue. (See *Persistence and Change: Waterfront Issues and the Board of the Toronto Harbour Commissioners* (1989) and the Commission's two interim reports.) In May and June 1989, it held hearings on the THC's role, mandate, and development plans, at which it received many submissions on such issues as accessibility, health and environment, the Port, ownership and land use, and the lack of accountability by the THC.

Once a major Great Lakes port, the Port of Toronto now ranks sixteenth nationally in terms of tonnage, and serves the local region, rather than having a national role. The long-term reduction in port traffic reflects changes to the commercial marine shipping industry: Toronto no longer makes economic sense as a principal destination for shippers. Nevertheless, a commercial port will always be essential to certain industries, on the waterfront and elsewhere, which receive raw materials and ship by water.

> The experiences that places make available to people, as we're learning, are an inheritance that has been entrusted to our care. Guarding these experiences and championing them, as we're also learning, are skills that are natural to people — because each one of us has direct access to the experiences that pour into us at any moment. So getting good at replenishing the places around us will just need a small stretch in our understanding.
>
> Hiss, T. 1990. *The experience of place*. New York: Alfred A. Knopf.

In its first interim report, the Royal Commission recommended that the THC's responsibility, jurisdiction, and mandate to operate the Port of Toronto be clearly separated from planning or developing lands that do not serve the port function on the waterfront. In its second interim report, *Watershed*, the Commission recommended that the THC continue to operate the Port, and that the port functions be consolidated on 40 hectares (100 acres) of land in the western part of the Port Industrial area, south of the Ship Channel. The remainder of the Port Industrial Area would be used for clean industry or mixed uses. The Commission also recommended that the mandate of the THC be clearly defined and supported by a strategically sound corporate plan, in order to rationalize use of public lands in the Port Industrial Area.

It has become apparent that there is a broad measure of support for strengthening the THC's accountability through amendments to the 1911 THC Act. The Royal Commission supports this approach. In late 1991, the THC entered into active negotiations to transfer lands surplus to its port operation requirements to the Toronto Economic Development Corporation (TEDCO).

In December 1991, the Honourable David Crombie, at the request of the federal Minister of Transport, agreed to bring together representatives of the THC, the City of Toronto, and the Department of Transport to produce a Memorandum of Understanding that will define the amount

Toronto Harbour Commissioners marine terminal

of land to be transferred from the Toronto Harbour Commissioners to TEDCO. It will also address the question of federal lands or jurisdiction, the possible future viability of the Port of Toronto, and any financial support that might be required.

LAND USE

A change in land use is occurring across the Central Waterfront: what were once single-purpose zones of industry and transportation are becoming a pattern of mixed uses embracing commercial, residential, recreational, industrial, and transportation elements.

Three of the nine *Watershed* ecosystem planning principles are particularly relevant to the Lower Don Lands: diverse, useable, and accessible. There should be diverse landscapes, places, wildlife habitats, and uses. Planning for the future should provide a local balance of employment and residential opportunities, thereby decreasing the need for commuting. This would suggest, for example, that commercial and compatible light industrial uses (such as graphics and printing) should be woven into the fabric of the Ataratiri site, just as they are now on King Street to the north. Finally, uses should permit public access and use of the water's edge.

Having mixed uses means there is a need to prevent conflicts in use: buffers have to be placed between sensitive uses and industry, especially sources of odours such as the Main Sewage Treatment Plant. They are also needed around sources of noise and air pollution such as the Gardiner/Lakeshore Corridor, the railway lines, and the Don Valley Parkway.

The City of Toronto's goal is to extend its physical centre to the waterfront. Developing mixed residential lands at both ends of the Central Waterfront would be an appropriate bridge and/or extension of neighbourhoods in the Ataratiri, Bathurst/Spadina, and Harbourfront areas. Moreover, it might make for greater flexibility in the Ataratiri housing target, currently set at 7,000 units.

Given what we know about environmental conditions, not only in Ataratiri, but in the rest of the Lower Don Lands, there is a need to examine whether there are better, cheaper places to build some of the units. For example, could some of the housing be put in the East Bayfront, or St. Lawrence Park East, or the northwest corner of the Port Industrial Area, in association with other uses? (Redpath Sugar is an example of an important and clean industry that could be incorporated into a changed and intensified landscape, with appropriate separation from any residential uses.)

Preserving industrial land, and the jobs it can provide, is another goal of the City of Toronto. In *Watershed*, the Royal Commission recommended that a new industrial park be created in the Port Industrial Area, to exploit the area's potential for creating thousands of waterfront jobs. (This Lower Don Industrial Area is covered in greater detail later in the section on economic development.)

As well as dealing with housing and industry, a plan for the future of the Lower Don Lands must consider recreational needs and possibilities. A revitalized Don River Valley and a new Don delta have enormous potential as locations for hiking and biking trails, as well as for interpretive and educational centres and displays. In *Watershed*, the Commission recommended

Redpath Sugar in the East Bayfront

that 80 hectares (200 acres) of the Cherry Beach lands on the north shore of the Outer Harbour be transferred from the THC to the City of Toronto. There has been progress in this regard: the THC has transferred approximately half the land to the City of Toronto, which is developing a plan for managing it, intended to strike a balance between the needs of people and of wildlife.

Plans for the Outer Harbour area, including Cherry Beach, the north shore, and the Outer Harbour Marina, should also accommodate the requirements, including security of tenure, of the member clubs of the Outer Harbour Sailing Federation. As recommended in *Watershed*, the Royal Commission believes that, to avoid further adverse effects on users of the area — naturalists, windsurfers, and community club sailors — the Outer Harbour Marina should not be expanded beyond its current capacity of 400 slips.

The Leslie Street Spit is the only accessible area on the Toronto waterfront large and wild enough to be described as an urban wilderness. It supports an astonishing variety of plants and animals, including a number of rarities: it has been colonized by nearly 300 species of vascular plants, and attracts 266 species of migrating, wintering, and breeding birds. In order to protect the integrity of the spit as a habitat for wildlife, it should be kept car-free and reserved only for uses such as passive recreation that are compatible with its urban wilderness character.

Economic Development

An economic development strategy is crucial to revitalizing the Lower Don Lands

and should include increased waterfront housing, increased employment opportunities in the area, and improved recreational facilities.

In the Ataratiri area, there should be greater emphasis on a wider variety of economic activities, including commercial, light industrial, recreational, and institutional uses, in addition to the current focus on housing. It may also be desireable to encourage temporary uses of some parts of the environmentally suitable land until the housing market improves. This would bring activity and some economic return, and help to demonstrate the desireability of the area.

If the market is allowed to respond to opportunities, synergies emerge. Once a sector is established in an area, it attracts spin-off uses; that will happen in Ataratiri, in the same way it has been occurring in the emerging design area at King/Parliament or the fashion district at King/Spadina. It is likely that entrepreneurs will see many interesting opportunities for a broad variety of uses in Ataratiri, as in other parts of the "shoulders" of downtown Toronto.

Another focus for increasing employment opportunities in the Lower Don Lands is the Lower Don Industrial Area, which can be created east of the new mouth of the Don River in the old Port Industrial Area on the land formerly owned or administered by the THC. With a consolidated Port, the surplus THC lands would offer new possibilities and opportunities for economic diversification in the City of Toronto. That is why, in its *Watershed* report, the Royal Commission recommended that these surplus lands be used to create a new waterfront industrial area, containing a Centre for Green Enterprise and Industry, to be both developed and managed by the Toronto Economic Development Corporation (TEDCO).

TEDCO, created by the City of Toronto, operates under a provincial charter with a mandate to create jobs, particularly on underutilized or surplus City property. Its board is made up of men and women from the business, labour,

Leslie Street Spit

Economic and ecological concerns are not necessarily in opposition. But the compatibility of environmental and economic objectives is often lost in the pursuit of individual or group gains, with little regard for the impacts on others, with a blind faith in science's ability to find solutions, and in ignorance of the distant consequences of today's decisions.

World Commission on Environment and Development. 1987. *Our common future.* Oxford: Oxford University Press.

environment, and public sectors. Management is able to fast-track the development process because of its intimate knowledge of the City's administrative workings.

While TEDCO's mandate is city-wide, it obviously is particularly important to the future of the new Lower Don Industrial Area. To be successful, industrial development agencies need to be at arm's length from the City and to have co-operation from municipal, business, and labour representatives. TEDCO is well placed in these respects: it is — and should continue to be — fully accountable to the City of Toronto, but it does enjoy an arm's-length relationship with the municipality. Its board should continue to include representatives from the City, Metro, business, environmentalist groups, and labour.

There are many waterfront opportunities for TEDCO: for example, it could collaborate with the World Trade Centre, which is part of a network of similar facilities in more than 50 countries. Importing and exporting "green technology" could be considerably enhanced by the World Trade Centre's expertise in promoting international trade and a new International Trade Centre in Exhibition Place would be a logical place for exhibitions and trade marts of green technology.

Given the need to remediate much of the soil in the Port Industrial Area, there is an opportunity to test available and new soil clean-up technologies in conjunction with the Centre for Green Enterprise and Industry. Such testing has the potential to provide Canadian companies with marketable experience in an area of growing concern in most economies.

The Lower Don Industrial Area could, in effect, become a showcase for future-oriented industries, operating on an environmentally sound basis, as Toronto heads into the 21st century. And given the public's concern about the quality of the environment, the former THC lands could be used to encourage industries that have operations or products geared to environmental protection and improvement.

The key to the burgeoning environmental industries sector lies in recognizing that current environmental problems represent an opportunity to profit — quite literally — from past mistakes. There is a need for new products and processes that will repair existing environmental damage and prevent it in the future — everything from industrial scrubbers to closed-loop systems for manufacturing. According to estimates, there are now more than 3,000 companies in Canada, generating more than $7 billion annually, that say they offer environmental products and services. In the United States, environmental industries do $100 billion of business annually and are said to constitute the country's third-largest industrial sector.

In Europe, an estimated two million jobs are associated with environmental industries and, given the horrendous

environmental problems in eastern Europe, and rapid economic and political changes there, that number will probably rise rapidly. Furthermore, industrialization of the Third World will create an enormous demand for environment-related products and services.

If it is to play a major role in Canada's industrial future, Toronto must build and attract such industries — which is one of the tasks facing TEDCO. But merely competing for industry is not enough: Toronto has to be imaginative and daring enough to actually help create industries and products — and the jobs attached to them. To do this, it must provide a home for environment-related industrial research and development; a place where the growing number of people interested in the environment can get at least some of their training and education; where innovative techniques and products can be developed, tested, and manufactured; and where specialists in environmental marketing and distribution can be based.

The key to the burgeoning environmental industries sector lies in recognizing that current environmental problems represent an opportunity to profit — quite literally — from past mistakes.

Some of the industrial elements that might make up or contribute to a green industrial complex are already located in the Port Industrial Area: telecommunications, film, and television; electricity generation; and waste recycling, among others. In the winter and spring of 1989-90, the Commission sponsored two seminars on green enterprise and industry to explore development possibilities for these and other industries with government, business, labour, and academic experts.

As a result of these discussions, the Commission concluded that what is needed is a catalyst to bring together the different sectors and interests and to convert potential into reality, to help make the Toronto of the 21st century what it has always been: a place of enterprise and industry, a liveable, workable city.

The catalyst could take the form of the proposed institute or a Centre for Green Enterprise and Industry, with its own building or buildings in TEDCO's Lower Don Industrial Area. Its mission would be to work with government, business, industry, labour, research scientists, environmentalists, and academic experts to promote green enterprise and industry in Toronto and in Canada.

It would seek out firms interested in research and development related to environmentally sound or environment-specific enterprise and industry. Such a centre should be offered as a milieu for the world's leading scientists, from Canada and elsewhere, as well as for those involved in federal and provincial green industry development programs. On behalf of research and environmental agencies, they could develop projects appropriate to present and future needs and opportunities in the provincial and Canadian economies.

Among the federal agencies that should be encouraged to participate in and with the centre are: the Department of Industry, Science, and Technology; the Department of Energy, Mines, and Resources; the National Research Council; the Natural Sciences and Engineering Research Council; and Environment Canada. Provincial agencies should include the Ministry

LESLIEGATE: RESPONSE TO THE ROYAL COMMISSION'S WORK

In 1990, IPCF Properties, a division of the Weston Group, proposed to intensify its use of a 2.4-hectare (six-acre) site at the corner of Leslie Street and Lake Shore Boulevard, currently occupied by a Loblaw's Superstore and an extensive parking lot.

However, it soon became apparent that the property, known as LeslieGate, has great local and subregional potential. Instead of pursuing traditional development options, IPCF decided to explore these possibilities within a development framework based on an ecosystem approach. Understanding that such an approach holds that "everything is connected to everything else", the framework seeks to link LeslieGate with the surrounding neighbourhood and, especially, with the waterfront.

A planning team began by examining the land use, built form, and physical environment of the surrounding neighbourhoods. The nearby area is predominantly mixed-use with residential — primarily low-rise, one-family houses mixed with the occasional apartment building to the north — and an industrial-commercial band along Eastern Avenue that extends south toward the lake in some parts.

The teams recommends integrating the LeslieGate site with surrounding communities through mixed-use development compatible with the existing scale: extending the urban grid south to the lakeshore, and providing at-grade pedestrian crossings. Offices, housing, and open space would be added to the Loblaw's store and parking lot to create a more diverse, economically and socially active centre for the area.

The team also suggests establishing a green corridor down Leslie Street to the Port Industrial Area. This "green, people-friendly" pedestrian spine, created by hard and soft landscaping, would ensure consistent treatment of the edge along Leslie, through the Port Industrial Area to the Leslie Street Spit.

Links to the waterfront would be enhanced by a "thoughtful, positive reinforcement of the pedestrian, cyclist, and vehicular connections across" and along Lake Shore Boulevard to Ashbridge's Bay. Connections between LeslieGate and the waterfront would be further improved if upper levels of future buildings on the site enabled people to see Ashbridge's Bay to the east and Lake Ontario to the south.

The kind of mixed-use development being proposed recognizes the growing importance of reducing distances between workplace, housing, and shopping. With the Loblaw's store remaining on-site, existing land uses would be maintained and a vital commercial enterprise would continue to contribute to the area's economic vitality.

IPCF Properties feels that LeslieGate can influence the future character of the area. Its location at the edge of the Port Industrial Area, near Cherry Beach and the Leslie Street Spit, gives LeslieGate potential as a gateway to the visual, recreational, and historical opportunities of the waterfront.

Source: Volgyesi + Propst Inc. 1991. *LeslieGate: a private sector response to ecosystem planning rational.* Toronto: Volgyesi + Propst Inc.

of Trade and Technology; ORTECH INTERNATIONAL (formerly the Ontario Research Foundation); and the Ministry of the Environment.

The centre would explore the possibility of attracting companies or organizations interested in gathering and disseminating information on environment-related statistics, experience, and trends. In helping to establish environmental information banks, TEDCO should work with the Greater Toronto Bioregion Research and Information Network (recommendation 24 in Chapter 3 of this report) and the United Nations Environment Program (UNEP), as well as with other international and national agencies responsible for gathering, reporting, and monitoring environmental information.

The centre would offer facilities for training and education, based on an ecosystem approach, to enterprise and industry, students at community colleges, and university undergraduate and graduate programs Canada-wide, for people planning careers in business or industry. In carrying out this part of its mandate, TEDCO should collaborate with community colleges in the Greater Toronto Area, including Ryerson, George Brown, and Humber, and with universities throughout southern Ontario, including Trent, Toronto, York, Windsor, Waterloo, and Guelph, all of which provide such education. In doing so, the centre would offer opportunities for direct contact among students, experts in research and development, managers, and workers in green enterprise and industry so essential to Toronto's future.

In addition to its negotiations with the THC, TEDCO has begun to define the role and mandate of the proposed Centre for Green Enterprise and Industry, including the development of a business plan. It is in this context that Commissioner Crombie has agreed to bring together representatives of the THC, the City of Toronto, and the Department of Transport to define the amount of land to be transferred from the THC to TEDCO, as well as related matters.

Integrated Review and Approval System

As discussed in Part I of this report, regeneration of the Greater Toronto waterfront is hampered by the complexity of jurisdictions, planning, regulations, and approvals; this is certainly true of the Lower Don Lands. The environmental audit of the East Bayfront/Port Industrial Area included an analysis of the existing frameworks for stewardship and accountability, and found that regulatory and decision-making processes limit possibilities for adopting an ecosystem approach to planning and managing the area.

Similarly, planning for Ataratiri involves a lengthy and complex process. The City's Part II Official Plan Proposals (1991) describe a multi-year, four-stage approval process for development, to include:

- approval of the policy statements contained in the proposals document, together with a zoning by-law, development plan, and plan of subdivision for the entire Ataratiri site;
- approval of sub-areas consisting of several development blocks, provided that detailed environmental, flooding, and community service issues have been addressed;
- approval of each development block depending on completion of necessary pre-construction environmental clean-up;

- approval of individual development applications, provided that the building design satisfies concerns regarding noise, water conservation, energy conservation, waste reduction, reduction of automobile use, environmental remediation, and (where appropriate) floodproofing.

It is undoubtedly necessary to ensure that all public interests, including community services and environmental remediation, are thoroughly and carefully accommodated in redeveloping the Lower Don Lands. However it is also clear that ways must be found to structure the approvals process to provide the flexibility needed to respond to opportunities, integrate activities of different government agencies, and provide a greater degree of predictability and efficiency to encourage private-sector involvement. An integrated approach to the Lower Don Lands could help to free up some of the regulatory and jurisdictional problems currently hindering planning, approvals, and implementation.

RECOMMENDATIONS

72. The Royal Commission recommends that an integrated approach be taken to planning in the Lower Don Lands, based on the framework outlined above, and that it involve participation by all levels of government, as well as the private sector and the public.

73. The Royal Commission further recommends that the draft integrated plan provide a basis for public discussion involving federal, provincial, Metro, and City governments, the public, private-sector landowners, neighbouring residents, and other interested parties.

74. An integrated process should be established to facilitate review and approval of remediation and development proposals by all levels and agencies of government.