

or treat stormwater adequately can greatly reduce the value of the habitat. This points out the complexity of protecting ecological communities in an urban setting, which involves more than simply setting aside the habitat as green space. Such issues could be better dealt with if official plans for municipalities and watershed plans by conservation authorities incorporated special species conservation objectives and if municipalities created ecological advisory committees such as the one now operating in the Halton Region.

processes be understood and addressed before shore protection or lakefill projects are approved in other waterfront areas.

The migration of birds and butterflies is another natural process. Because many species need to build up their energy reserves before crossing the expanse of Lake Ontario, it is essential to protect lakeside resting and feeding habitats, as well as green corridors through urban areas.

Elements of the natural ecosystem, especially trees and shrubs, are vital to both people and wildlife. John Macintyre of the Parks



Rail passenger access to downtown Toronto

Several examples of natural ecological processes can be found along the waterfront. Natural patterns of sand scour and deposition along the shore nourish beaches; when the continuing natural erosion of the Scarborough Bluffs required substantial control measures, the resulting decline in transported sand created a new problem by “starving” the Eastern Beaches. Such processes, once altered, can be very difficult to correct. It is important that the potential impact on sand transport

and Recreation Federation of Ontario reminded the Commission of the critical role of trees in a green legacy:

Trees are important to our physical environment and to our emotional well being. They remove pollutants from the air, reduce noise and have a moderating effect on the climate — essentially acting as nature’s air-conditioners.

Useable

- ~ The waterfront should continue to support a mix of public and private uses that:
 - ~ are primarily water-related;
 - ~ permit public access, use, and enjoyment of the water's edge;
 - ~ enhance residential neighbourhoods and appropriate industrial uses;
 - ~ are environmentally friendly in form and function;
 - ~ minimize conflicts with adjacent communities or uses;
 - ~ promote greater year-round use.

An attractive and vibrant waterfront supports a wide range of uses beyond recreation areas and green spaces: residential neighbourhoods, industry and commerce, utilities, and transportation facilities all have places there. As one deputant stated in his submission:


It is possible, through good planning practices and policies, to develop an environmentally friendly waterfront which does not preclude a mix of land uses. What is required if this is to be accomplished are comprehensive environmental management and development control policies as well as parks and open space policies.

Urban waterfronts were once largely industrial. Ports dominated waterfronts and became the focus of commercial activity based on the movement by ship of raw materials and finished goods. The growth and economic well-being of the ports' hinterland were directly linked to the successful operation of the port terminals. The federal government established public ports in the Greater Toronto Area at Toronto and Oshawa. In addition, there are several private port facilities to serve specific industries (such as cement manufacturing and oil refineries); their ongoing role on the waterfront is linked to the future of those industries.

In both Toronto and Oshawa, the dominant position of the public industrial ports

has been eroded by changing technologies and shipping patterns, lack of growth opportunities, competition from other ports and from surface transportation, and lessened need for marine transportation to meet consumer demands.

The Port of Toronto currently serves as a transfer, storage, and distribution centre for bulk commodities such as cement, sugar, aggregates, and soybeans. It also handles liquid bulk commodities and a range of general cargo. The demand for the functions it carries out is expected to continue to make it an active part of the Toronto waterfront.



Woe to you who add house to house and join field to field, till no space is left and you live alone in the land.

1978. "Isaiah 5:8." In *The holy bible: new international version*, 737. Grand Rapids: Zondervan.

The Port of Oshawa serves specific local industries, but plays a small role in the overall context of transportation and industrial requirements of the region. Over the past decade, the tonnages being handled have declined, with such commodities as coal and salt now moving through the private port facilities at St. Mary's Cement. While the Port of Oshawa has been successful in attracting some new traffic, there is great pressure to develop alternate uses for the port lands.

While the manufacturing and port uses of the waterfront have diminished somewhat, industry continues to be a valuable and legitimate part of the waterfront mix of uses. In keeping with the principles of this report, waterfront industry should be non-polluting and, where possible, should contribute to appropriate public uses of the waterfront. Special emphasis should be placed on policies



The mouth of the Rouge River

that will lead to the development of green-enterprise industries for the next century.

As the industrial use of the waterfront declines, a large number of sites are undergoing redevelopment, generally involving more intense use and often based on a change to residential use.

The nature of these changes is well illustrated by the conversion now under way at industrial sites in Etobicoke, Mississauga, and the Port Union area of Scarborough. This redevelopment process opens opportunities to secure greater public access to the shore, to bring strategic parcels of land into public hands, and, using creative landscaping and design, to create a more attractive and inviting waterfront. It may also provide opportunities for rehabilitation of contaminated environments at former industrial sites.

However, in order to achieve these benefits, waterfront projects must be evaluated

carefully. Protecting the waterfront environment and creating public access and links must be an integral part of project planning. Given the limited extent of the waterfront, it must be clearly demonstrated that projects will enhance the environment and make the waterfront more publicly accessible.

Residential neighbourhoods are a long-standing and legitimate use of parts of the waterfront. Stable neighbourhoods should be protected and linked through a trail system to form a chain of neighbourhoods along the lake. The principles outlined in this chapter should be applied in planning for any redevelopment that occurs or as new residential areas are developed.

Because the waterfront is a limited environment being asked to meet increased and competing demands, one criterion for assessing proposed uses should be their relationship to the water: those that require water access should take preference although other general uses may sometimes need to be



The mouth of the Don River

We have a funny complex in North America about nature. We don't understand the real rapport between man and his surroundings. We've had a fear of nature and yet we say we love it — and a fear of ourselves in relationship to nature. This has led to two reactions. Either we want to go into the wilderness where nobody has been; or we want to destroy it completely. In North America you seldom find the extraordinary magic that exists when what man has done complements or makes more beautiful what nature has prepared. We have to re-establish that rapport.

Erickson, A. 4 October 1980. In *In Erickson's Eden, an architect can improve on nature*, A. Freedman. E3. *Globe and Mail*.

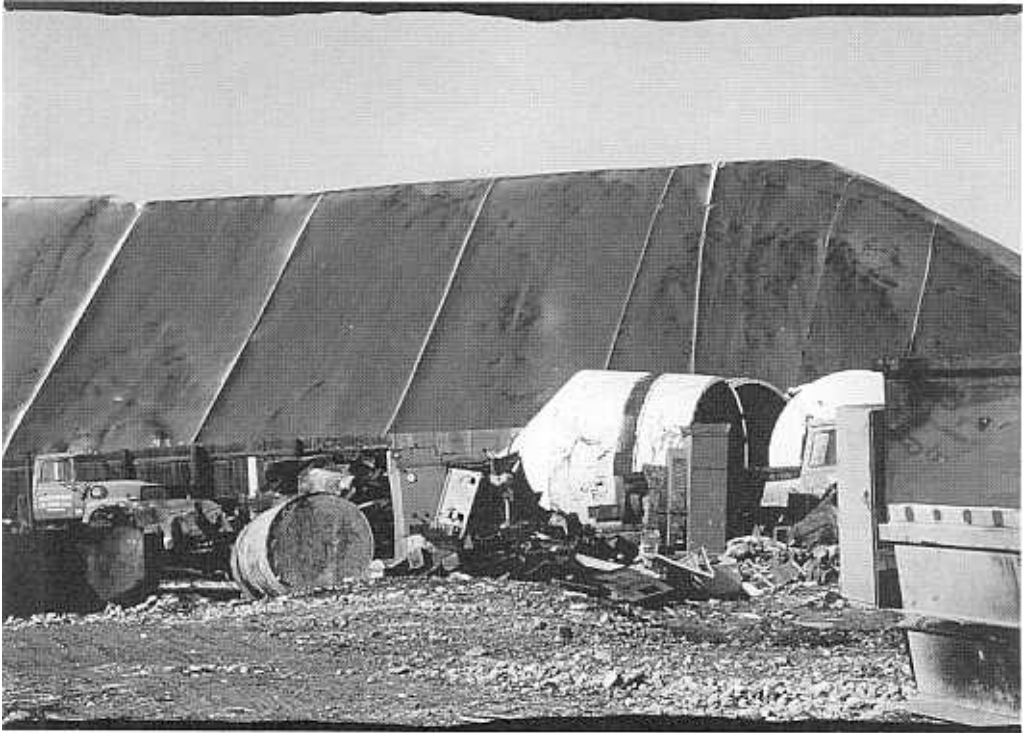
accommodated near the shore. The same should apply to waterfront recreational uses: preference should be given to those that have to be on the water's edge — whether that involves marinas or boat ramps or simply the opportunity for quiet walks along the shore.

Because the growing GTA population will require additional or expanded services in the coming years, one facet of waterfront use that deserves special attention relates to public utilities, including generating stations, waste management facilities, and water and sewage works. While utility lands and works can be barriers to sections of the shore, they also constitute substantial parcels of public land that could be devoted to more than a single use. The design of all new or upgraded works should incorporate provisions for public access along the shore, through setbacks of facilities or other design features. Existing parcels should be reviewed to identify opportunities for trail crossings or other public uses.

The locations of new works should also be scrutinized carefully to ensure that they conflict as little as possible with natural features, existing residential neighbourhoods or recreational uses. As is evident in the current plans for expanding the regional water plant on the Ajax waterfront, there is often a tendency to view passive open space as the least costly place to locate facilities. The proposed plant in Ajax will mean a major loss of existing green space, and will create a visual barrier to the waterfront. Creative landscaping and building design should

Among the suggested projects are promotion of environmentally friendly industry; state-of-the-art waste management systems in residential, commercial, and industrial communities; conservation strategies for energy and water consumption; and innovative, environmentally sound planning and transportation initiatives.

While all of these might be part of any urban location, it is particularly appropriate to consider them in a waterfront setting, where environmental concerns are highlighted.



Covered salt pile, Port Industrial Area

address these problems with a view to integrating the structure with the surrounding residential neighbourhood.

The waterfront can also be ideal as the location of urban uses and practices that are more friendly to the environment. The Metro Toronto Waterfront Committee has suggested a new form of provincial-municipal partnership that would sponsor a series of demonstration projects aimed at producing an environmentally friendly waterfront.

At present, many recreational activities and some jobs along the waterfront are seasonally based. In her submission to the Commission, planning consultant Xenia Klinger suggested that paying greater attention to microclimatic effects when designing a building, as well as carefully planned planting of evergreens, could increase the comfort levels and the use of waterfront settings beyond the traditional summer season.

According to a 1989 Environment Canada study, reducing wind chill by improving design and tree-planting could add 56 days

of year-round park use, an increase of about 50 per cent.

In its submission to the Royal Commission, the Board of Trade of Metropolitan Toronto also urged greater attention to off-season use; it proposed a study on winter use of the waterfront, in order to make more use of existing facilities and lands.

Diverse

- ~ Waterfront uses, programs, and environments should provide diverse experiences for visitors and residents.
- ~ The mix of open space and recreation facilities should balance competing public demands within environmental limits.
- ~ Waterfront uses should be balanced between:
 - ~ public and private;
 - ~ urban and rural;
 - ~ the built and natural environments;
 - ~ large- and small-scale;
 - ~ active and passive;
 - ~ busy and quiet;
 - ~ free and user-pay.

One of the recurring themes in discussions about the waterfront is the concept of diversity. One way to enhance diversity along the waterfront is to develop a linked system of parklands and recreation facilities. Bob Short of the Town of Whitby was among the deputies who endorsed the idea of a system of green spaces, noting that waterfront plans could:

include a hierarchy of open space functions and differentiate between locally significant open space resources, and those areas that ... provide larger opportunities for the growing populations within the GTA.

Jane Welsh of the City of Mississauga told the Commission that:

successful waterfronts tend to be places where opportunity exists for

diverse experiences. There should be opportunities for solitude, places for crowds, quiet boardwalks, and busy promenades.

To tap the potential attractiveness of the waterfront most fully, diversity must be within easy reach of members of any individual waterfront community as well as across the entire waterfront. It must relate not only to patterns of land use but also to the diversity of experiences and settings in both the built and natural environments.



The expectation that a Port will inevitably handle all the cargo to and from its 'naturally tributary hinterland' has been shattered by the load center port — the single destination to or from which containers can easily be transported overland, trucked, or carried by rail to an entire region. Many Ports are now bypassed by cargoes that they once would have handled as a kind of geographical right.

Chasan, D. J. and T. J. Dowd. 1988. "Strategic planning: defining port values." In *Urban ports and harbor management: responding to change along U.S. waterfronts*, editor M. J. Hershman. 238. New York: Taylor & Francis.





Natural shoreline, Frenchman's Bay

As part of its proposed waterfront plan, the City of Mississauga has put forward six categories of waterfront green space:

- ~ Windows to the Lake: small areas of public land such as street ends, that provide local visual access and passive uses.
- ~ Local Access Nodes: providing lake access to neighbourhoods with foot or bicycle access, as well as minimal facilities as stopover or rest areas for pedestrians and cyclists touring the waterfront.
- ~ Regional Access Nodes: gathering places and dispersion points for people from local communities and beyond, on a larger landbase.
- ~ Natural Areas: places of minimal development managed to preserve and enhance their natural appearance and condition.
- ~ Activity Centres: containing specific attractions such as marinas, commercial outlets, and facilities for structured

recreation, large events, and places where people can congregate.

- ~ Linkages: designed to provide connections between green spaces, and between those spaces and adjacent communities.

Similar green-space classification systems should be employed as part of the planning process across the waterfront. Taken together, such spaces would create a green fabric of varying widths and textures over the entire length of the waterfront.

Underlying much of the comment at the hearings was the assumption that future recreational use of the waterfront is likely to be much greater than in the past, thanks to a variety of factors. These include: expected population growth in the Greater Toronto Area; improvements to the quality and accessibility of the waterfront; growing public interest in the environment; and changing attitudes towards recreation and lifestyle choices. In time, this increasing

demand is expected to lead to stiffer competition for scarce and limited land on the waterfront, and to more intense uses of land adjacent to the water's edge.

Given that context, it is essential to recognize that not all uses can be accommodated at all sites. Waterfront planning must pay special attention to protecting natural areas and passive open space along the water, pieces of green that are an essential part of the urban infrastructure — as necessary to the fabric of the community as its roads and sewers. As the size and complexity of the urban area expands, the value of these open areas rises correspondingly.

Without a strong commitment to preserving waterfront green space as an essential part of the broader system, that space is inevitably nibbled away for other, more active uses. The Commission has already commented on the proposed location of the aquarium in Humber Bay Park East, which is just one case in point.

The Commission believes that, while it will always be difficult to strike a balance among uses along the waterfront, the two most vital considerations are public demand and environmental limits. Demand is influenced by the fact that we are an aging population, living in a larger and denser fabric of communities, for whom passive and natural waterfront spaces are increasingly more valuable.

In speaking of environmental limits, the Commission has in mind the cumulative effects of recreational activities and facilities on the natural ecosystem along the waterfront, as well as such public concerns as traffic congestion and crowding.

Open

- ~ The density and design of waterfront structures should not create a visual barrier or be an intrusion on the water's edge.
- ~ The water's edge should be, and clearly be identified as, open to public access.

The most frequent criticism of proposed central waterfront development was the scale and density of high-rise development, which was seen as creating a wall of concrete between the city and the water. Although proposals for that area of the Central Waterfront devoted to Harbourfront have been scaled back, they have become a potent symbol of what people do not want their waterfront to be.



Human life, to be fully human, needs the city, but it also needs food and other raw materials gained from the country. Everybody needs ready access to both countryside and city. It follows that the aim must be a *pattern* of urbanization so that every rural area has a nearby city, near enough so that people can visit it and be back the same day. No other pattern makes human sense.

Schumacher, F. 1985. In *Dwellers in the land: the bioregional vision*, K. Sale. 114. San Francisco: Sierra Club.

In fact, Harbourfront has become a kind of shorthand — referring to future development in Etobicoke and elsewhere along the waterfront, people told the Commission strongly: “We don’t want another Harbourfront here.”

What people do want, it appears, is a waterfront that has a feeling of openness and spaciousness, and that allows visitors to escape from the confines of the urban form. Most deputants welcomed diversity of amenities and attractions, both summer and winter, as making time spent at the waterfront more interesting. However, they also want ample