

# TORONTO

*the*

# GREEN



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# TORONTO THE GREEN

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### Acknowledgements

"Toronto the Green" has been prepared by the Environmental Committee of the Toronto Field Naturalists' Club with the aim of drawing attention to the many natural areas still existing within Metropolitan Toronto.

Many members of the Club have contributed to this report. The actual writing has been done by a small group of people: Linda Cardini, Jack Cranmer-Byng, Henry Fletcher, Clive Goodwin, Stewart Hilts, and Ron Thorpe. Mike Goldstein prepared the maps. John Jordan designed the cover. However, contributions and suggestions have come from many sources including the many Club members who are actively engaged in the Club's long-term survey of Toronto's ravines. Members of the Environmental Committee, under the chairmanship of Henry Fletcher, constructively criticized the text, while overall editing was carried out by Helen Juhola. The recommendations contained in the report have been formally endorsed by the Club's Board of Directors, and represent the official views of 1,500 active naturalists.

We are an amateur club with no staff or office, so all this work has been done in members' own time. To all these people who have so generously contributed their time and knowledge to make this publication possible, we owe our grateful thanks.

W.A. Andrews  
President  
Toronto Field Naturalists' Club

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# Chapter 1 Introduction

## **Toronto Field Naturalists' Club**

The Toronto Field Naturalists' Club was formed in 1923 and as of 1976 had a membership of 1,500. Although most of these members are amateur naturalists, the membership also includes scientists, educators, planners, and others who are professionally involved with natural resources. Equally important are the 300 junior members who share an enthusiastic interest in nature and an appreciation of the natural features of Toronto.

The primary purpose of the Club is to acquire and disseminate knowledge of natural history. Organized activities of the Club include outings to natural areas with records kept of species observed, an annual Christmas count of birds in Toronto, maintenance of a wildlife sanctuary, an on-going field survey of the ravines in Toronto (resulting in published reports), and the presentation of reports when public opinion is requested on environmental issues that may affect natural areas in Toronto. Each month from September to May the Club holds a general meeting, special interest group meetings, and publishes a newsletter. As well as these activities, the Club sponsors the Audubon film series and publication of *The Ontario Field Biologist*.

Another primary goal of the Club is to encourage the preservation of natural areas in the urban setting, in recognition of the importance of the diverse habitats they contain as well as for the aesthetic, recreational, and educational values these areas provide for present and future generations of Torontonians.

The Club is presently the only group studying the natural resources of Metropolitan Toronto as a whole. For many years members have been observing and keeping records of wildlife species and have become familiar with the natural areas of Toronto. As a result it is felt that the Club can make a unique contribution to planning in Toronto.

## **Purpose of Writing "Toronto the Green"**

In keeping with the goals of the Toronto Field Naturalists' Club this report is written to increase the public's knowledge and appreciation of Toronto's natural areas. It is intended for anyone who enjoys the outdoors and seeks opportunities for various types of outdoor relaxation in the Toronto area.

Because the future of many of the areas described is uncertain, the report includes recommendations to guide decision-makers, planners, and engineers toward specific actions needed to conserve these areas. We, therefore, hope this report will serve the dual purpose of letting the public know where the natural areas are and suggesting measures to ensure their conservation.

## **Scope of the Report**

This report describes a diversity of undeveloped lands. For the most part these areas are within Metropolitan Toronto; however, we have felt compelled to discuss a few adjacent areas having natural features of importance although they are not contained by the political boundaries of Toronto.

Detailed reports including lists of plants and animals occurring in specific areas throughout the city are being prepared and published separately as an on-going project of the Club. (See list of Ravine Reports in Bibliography.)

## **Toronto — Uniquely Blessed**

In many cities the rivers, lakes, and woodlands have been polluted beyond recognition or have been destroyed to make way for urban growth. This loss has made it necessary to create green space in the midst of concrete and asphalt by constructing parks.

Fortunately, Toronto still contains many natural areas, most of which are located in the ravines and river valleys that form a network of green space and semi-wild areas even in the heart of the city. The lakeshore and island provide additional variety of both scenery and opportunities for recreation. Many of us take these natural features for granted, and many know little of their existence. They form an integral part of Toronto's landscape and contain habitats for many plants and animals.

## **Definition of a Natural Area**

Although difficult to define, a natural area in a city may be thought of as a place where vegetation is allowed to grow without pruning or mowing, and where animals live independently. It means an area where streams are not dammed or channelled, and where there is a minimum of pavement and vehicular traffic.

Not all areas included in this report follow this definition. High Park, for example, has many roads and mown areas; however, because it contains natural bodies of water and many native plants and animals, it is included. Similarly, although the Don River is hardly a natural freely running river, the Don Valley does contain many wooded areas with significant plant and animal populations.

### **Values of Natural Areas in a City**

There are many reasons why it is important to conserve natural areas within the city.

#### *Recreational*

Parks are used by people for a variety of activities: walking, jogging, bicycling, swimming, fishing, boating, skating, skiing. They are also enjoyed immensely by people seeking quiet places away from the noise and rush of the city. Parks also provide people with opportunities to observe plants, animals, and a diversity of landscapes. These opportunities are especially important for city dwellers of limited mobility: the elderly, the handicapped, and children.

#### *Aesthetic*

Many of Toronto's natural areas are places of great scenic beauty: the ravines in autumn, the lakeshore during a storm, the Scarborough Bluffs. The green ravines and blue lake provide a contrast and visual relief from the grey concrete and black asphalt of the city.

#### *Psychological*

Contact with the natural world fulfills psychological as well as physical needs for people. The more we become urban dwellers, the more we surround ourselves with pets and houseplants. Gardening and bird watching have become popular hobbies with city dwellers. There is a great demand for bird food, bird houses, and feeding stations in urban centres. The popularity of zoos, botanical gardens, magazines and books about wildlife, television programs about nature, and the increasing memberships in conservation organizations indicate the widespread interest in and desire for contact with the natural world.

#### *Educational*

Natural areas in the city provide places where children can learn about nature and its processes through observation while playing. Contacts of this sort are very much part of a rural child's daily experience and maturation, but are all too rare in the lives of city children. Learning while at play in a natural setting is as educational as it is recreational for young children.

Facilities for outdoor education in Toronto include: the Toronto Island and High Park Schools of Natural Science, the Scarborough Science Bus, Forest Valley Day Centre, and the Etobicoke Field Studies Centre. The Metropolitan Toronto School Board Research Department has prepared a list of natural areas in and around the city and how they can be used as outdoor education sites. School boards are interested in increasing students' first-hand experience with nature.

Many adults enjoy getting out to natural areas to learn more about the plants, animals, and geology of the region. For many years the Toronto Field Naturalists' Club has had outings almost every weekend throughout the year. Guided hikes by the Commissioner of the Metropolitan Toronto Parks Department are attended by hundreds of people.

#### *Environmental Indicators*

It has been discovered that many plants and animals are more sensitive than people to poisons in the environment. In Japan the death of fish and fish-eating birds preceded the deaths of more than 100 people due to mercury poisoning. The disappearance of ospreys from many of their traditional territories was one of the first indicators that the use of DDT would have to be restricted. In Toronto, studies show a high percentage of hatching failure in nesting gulls and terns, and a high proportion of deformed young. Natural areas within an urban environment may be useful as indicators that potentially lethal changes may be taking place in our environment.

#### *Modifying the Environment*

The presence of natural areas containing trees can help modify harsh environmental conditions. Anyone who has walked along a tree-lined street in a storm knows that trees provide shelter from wind, rain, and snow.

Trees also provide shade and absorb and scatter some of the visible part of solar radiation.

Vegetation is also useful in cooling and humidifying hot summer air. For example, trees absorb heat from the air as they give off moisture, thus acting as natural air conditioners.

Trees and shrubs can play a role in noise abatement by absorbing sound waves, particularly along highways and heavily travelled city streets. No wonder that land values are greatest in the neighbourhoods of parks and ravines! One of the most desirable areas for housing in Toronto is Rosedale, an area intersected by three ravines.

#### *Human Safety*

From the point of view of human safety many undeveloped natural areas are unsuitable for urban development. The steep slopes of ravines are hazardous and often unstable and are, therefore, poor places to build. Land in valleys is subject to flooding. Roads, railroads, and buildings have all been damaged at some time by floods in the valleys in Toronto. Landslides have occurred on the Don Valley Parkway and, periodically, one reads that a house located on the edge of a ravine or on the edge of the Scarborough Bluffs has slipped over the edge.

#### *Preservation of Our Natural Heritage*

A particular natural area may contain a unique community of plants or animals, an unusual land form, or a historic site; also a natural area may contain a remnant of an environment that was once more widespread.

In Metropolitan Toronto almost all remaining undeveloped natural areas have been affected by some type of human activity at one time or another. Despite the changes caused by human activity, the areas still offer clues about Toronto's past and constitute an irreplaceable recreational, scenic, and aesthetic resource. Most important, they provide a link in the chain of areas allowing the movement and survival of wildlife over a considerable distance.

## Chapter 2 How Toronto Was Made

Toronto has not always been as it is now. There have been times when its site was submerged beneath a tidal sea, times when it was covered by a great ice sheet, and times when it enjoyed a warmer climate than it does today. The present physical setting of Toronto is the result of slow movements of the earth's crust, forces of erosion, and changes in climate taking place during many millions of years. Only during the past two centuries has man's impact on the site been significant.

Perhaps 450 million years ago buckling of the earth's crust created mountains approximately where the Appalachians are today. A shallow sub-tropical sea existed to the north and west of these mountains. As a result of erosion of the higher land, the bottom of the sea gradually accumulated sediments. These solidified into what is now Toronto's bedrock. This bedrock became the land surface as the seas retreated. Mostly it lies well below the present ground level in Toronto, but it is exposed in the Humber Valley and in the quarry of the Don Valley Brick Works.

A million or more years ago, falling temperatures brought about the great glacial age known as the Pleistocene. Vast ice sheets spread out from the north covering most of Canada including Toronto and extending well into the United States. The ice advanced and retreated several times, and melting glaciers deposited layers of sand, gravel, and clay on top of the earlier-formed bedrock. One feature of Toronto's landscape created during this period was the Scarborough Bluffs. These are the remains of a deposit made about 80,000 years ago at the mouth of a large river which flowed from the north into an earlier high-level "Lake Ontario".

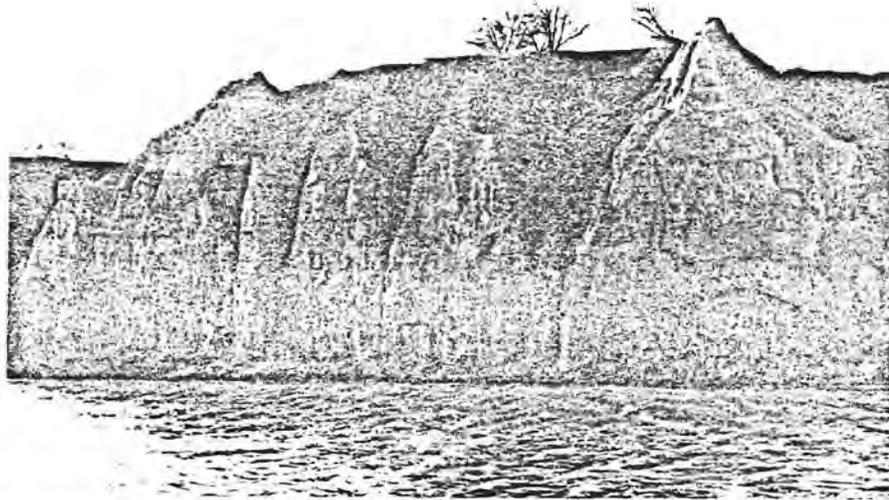
About 12,000 years ago, Lake Iroquois was formed from glacial meltwaters that could find no outlet when ice dammed the St. Lawrence valley. This lake reached a level about 200 feet above the present level of Lake Ontario and was much larger in area. The waters of Lake Iroquois cut back the softer glacial materials to form a shoreline that is still visible in modern Toronto. It is most evident as the "escarpment" on which Casa Loma stands, above Davenport Road.

When the ice in the St. Lawrence valley eventually melted, Lake Iroquois was drained, exposing a more or less level clay plain that has since been partly covered again by rising waters. Strong winds, storms, and wave action removed headlands, altered the shoreline, and created huge bars across the bays. The Don River formerly flowed into a long bay across whose mouth was built the East Toronto bar, a mass of sand and gravel almost four miles long and 185 feet above the present lake level. Kingston Road follows the crest of this bar for some distance. The Davenport bar, lying across an early Humber Bay, was formed in a similar manner. These bars deflected the river outlets westward so that the modern streams now flow almost due south.

Both the Don River and the Humber River left deposits of sand, clay, and gravel behind the bars. Also, before the building of the Davenport bar, the Humber River had created a delta consisting of a 60-foot layer of sand that now is evident as extensive sand deposits in the western part of the city. These actions and the gradual smoothing of its own bottom by Lake Iroquois created a plain two to three miles wide that slopes down gradually toward the present shore of Lake Ontario. It is on this plain that the older part of Toronto stands.

The materials of the city plain have played an important part in the building of Toronto and have strongly influenced its appearance and development. Huge quantities of gravel have been removed from the old shoreline and bars, and used for construction. The sands of the Humber delta have been scarred with many pits, and hundreds of wagonloads of sand were carted away from Clover Hill, a deposit located southwest of the intersection of Yonge and Bloor Streets. Even more significant, the red brick so common in Toronto is derived from deposits of Iroquois clay. At the beginning of the 20th century there were some 30 brickyards in Toronto and its suburbs. Together these produced more than 100 million bricks a season. When the clay deposits were depleted, the yards were abandoned and became sites for housing, industry, and even parks. Eglinton Park, for example, is located at what was formerly the site of a brickyard. One brickyard, the Don Valley Brick Works, is still producing, and is passed by thousands of motorists on their daily journeys to and from downtown.

The retreat of the ice left a distinctive ridge of glacial debris north of Toronto. Known as the Oak Ridges moraine, this ridge runs parallel to the shore of Lake Ontario about 25 miles north of the city. From springs in these hills rise the rivers that flow through Metropolitan Toronto. These rivers had relatively steep gradients of about 16 feet per mile, and these increased further when the level of Lake Iroquois fell suddenly. The rivers and their tributaries have carved ravines up to 150 feet deep as they cut through the glacial debris to reach lake level.



The result, a system of deep, narrow, and steep-sided ravines, is one of Toronto's most notable features.

Because of their topography, Toronto's ravines have been subject to severe flooding — water in the narrow valleys has no place to go but downstream. As a result, water levels can rise suddenly, creating flash floods. The worst flood was that caused by Hurricane Hazel in 1954; however, severe flooding has been recorded periodically for as long as records have been kept. This susceptibility to flooding has meant that many of the ravines have remained relatively undeveloped in spite of urban growth. Some have been too deep to fill in easily; some, too steep to build on the sides of; and others, too narrow or too dangerous to allow widespread settlement on the flood plains. These factors have helped to preserve many ravines in a reasonably natural state.

At the time when Toronto was founded, several parts of the plain were still poorly drained and marshy, but in other locations the creeks had carved deep ravines. Both these features influenced the expansion of the town in its early stages and are the reasons that many of our streets change direction or end abruptly. For example, it was not until 1847 that City Council decided to extend Queen Street across Taddle Creek and through a marsh east of Jarvis Street.

As the city expanded the marshes and shallower ravines were filled in. Taddle Creek, which entered the harbour at what is now the intersection of Front and Parliament Streets, and Garrison Creek, which entered the lake near Fort York, have long since disappeared through filling and diverting into sewers.

Just as Lake Iroquois built bars during the course of smoothing its shoreline, its successor, Lake Ontario, created the Toronto peninsula which eventually became Toronto Island. As well as protecting the city from the fury of the lake, the island adds to the site an attractive natural harbour. Easterly winds, although not frequent, become powerful while sweeping the length of the lake. The resulting current transports material westward from the Scarborough Bluffs and deposits it in Toronto's bay. The more frequent westerly winds, which travel only a short fetch across the water, have shaped the northern curvature of the deposit; this deposit is broken on the inside into lagoons and islands. It was not until the 1850's that the peninsula became an island as a result of severe storms.

Originally both the Don and Humber rivers meandered sluggishly across their wide floodplains. The Don River split into two channels near its mouth and entered the lake through Ashbridge's Bay, a large marsh that extended between the mainland and the neck of the Toronto peninsula. About 1890 some two miles of the lower Don River were straightened by cutting off several meanders mainly to create easy access to the city for the railways. Later, Ashbridge's Bay, the finest marsh in the Toronto region, was entirely destroyed when it was filled in to create land for industry. The Don River now flows into the lake via the Keating Channel.

This short account can do no more than touch on a few of the major highlights in the development of the physical setting of Toronto as we know it today. It is obvious, however, that changes at least as significant as some of those brought about in thousands of years of geological evolution have been made within the past 200 years. Actions that we take today can profoundly affect the kind of Toronto that our descendants will inherit. We should think carefully before embarking on programs that will change the landscape we live in.

## Chapter 3 Nature In The City

The Toronto region has changed dramatically and experienced many influences during the past two hundred years, yet remnants of the original plant and animal communities remain and the physical features and climate that created the environment within which the communities flourished still exert their influence.

Toronto is at the northern edge of the great southern deciduous forest, the area that scientists describe as the Carolinian life zone. Plants such as sassafras and black oak are characteristic of this association. To our north is the mixed forest of the St. Lawrence Valley, the Alleghenian life zone, typified by a combination of hardwoods and conifers — sugar maple, beech, and aspen together with white pine, white cedar, and hemlock. The two zones meet in the Toronto area so that it contains some elements of both.

Two hundred years ago the Toronto area supported a great amount of wildlife. Ashbridge's Bay and the huge marsh at the mouth of the Don River were famous for wildfowl; the Don River, for salmon; and the sandy inland ridges of oak forest, for vast flocks of Passenger Pigeons. Eagles nested in tall trees in the Don Valley. Cougars inhabited the extensive forest between Toronto and Thornhill. The valley sides were covered with hemlock and fine stands of butternut; and choke cherry and wild apple were abundant.

The Humber Valley was inhabited by Passenger Pigeons, beaver, marten, Canada lynx, black bear, wolf, wild turkey, white-tailed deer, and rattlesnakes.

Toronto's position near the west end of the north shore of Lake Ontario affects the climate so that it is significantly different from the climate of areas only a few miles inland. The lake moderates the cold of winter and the heat of summer. The warming effect of a large body of water that does not freeze over is increased even more now by the presence of heated buildings and the industry of a large city. The direct result in areas closest to the lake is that winters are less severe than in the neighbouring countryside and snowfall is usually significantly less.

The city has other effects: more water tends to run off faster, and the general atmosphere is less humid due to the great areas of impervious material with which the roads and buildings are made.

Now the city itself creates influences, some with broad effects and some that are often subtle or local. For example, wind tunnel effects created by large buildings in downtown core areas severely desiccate street trees and often cause permanent injury.

Compared to urban areas elsewhere, air pollution in Toronto is not serious. Nevertheless, it has an extensive impact. Air pollution comes from stationary sources such as industrial plants and incinerators that emit particulates and sulphur dioxide, and from transportation sources such as automobile exhausts that emit carbon monoxide, organic vapours, oxides of nitrogen, sulphur compounds, and particulates. The air quality as measured by the Ministry of the Environment is expressed as an index based primarily on the amount of particulates and sulphur dioxide in the atmosphere. Significant concentrations of sulphur dioxide are less common in the Toronto area since the Hearn generating station converted from using coal to gas. The amount of particulates and dust is significantly higher in urban areas than in areas outside the city.

Although all life-forms are affected somewhat by air pollution, some forms are more sensitive to it than others; for example, lichens are extremely sensitive to the presence of sulphur dioxide and particulates. The abundance or absence of lichens in an area is an excellent indicator of the amount of air pollution present. Eastern white pine is also sensitive to air pollution and as a result does not grow well in polluted urban areas.

Pollution of the watersheds has occurred because run-off from roads and streets carries nutrients such as nitrates and phosphates, heavy metals, salts, hydrocarbons, asbestos, pesticides, and bacterial contaminants. The watersheds also receive various industrial discharges and the contents of sewer systems. Finally, they carry a heavy burden of suspended solids as a result of erosion both from natural causes and from construction throughout the area.

Aquatic life has been seriously affected. Increasing concentrations of pollutants have influenced the kind of organisms found. Typical indicators of clean water like caddisfly larvae have been replaced by pollution-tolerant species such as tubificid worms.

As pockets of natural or semi-natural habitat are replaced by buildings and roads, the amount of water reaching streams is increased as less rainfall is absorbed into the ground. Flood peaks are higher and come sooner after storms, and the average summer flows are less. The water periodically moves faster in the watercourse and carries greater loads of silt. The silt tends to sweep away streambank vegetation and scour the

streambed. Stream habitats and inhabitants disappear.

Deposition of the silt in ponded areas clogs fish spawning beds and suffocates animal life on the stream bottom.

Removal of streambank vegetation also allows the stream temperatures to increase, making the water unsuitable for desirable cold-water fish such as brook trout and salmon, both formerly inhabitants of the watersheds within Metropolitan Toronto.

Finally, channel and drainage improvements, and dam construction for flood control greatly reduce the natural cleansing action of the streams by eliminating pool and riffle areas where silt normally settles. Usually bottom and shore vegetation are removed, thus reducing cover for frogs, small fish, and aquatic insects. The result is an aquatic desert in which only the most tolerant fish like suckers and carp exist. Watercourses become clogged with algae in slow moving stretches, almost or entirely dry in periods of drought, and foul-smelling because oxygen concentrations have been reduced.

Even the presence of a park does not guarantee that suitable habitats for plants and animals will be retained. Where parks are heavily used or require large areas of mown grass such as are required in ball parks or playgrounds, natural habitats are inevitably destroyed; for example, the tidying on the east bank of Grenadier Pond has resulted in the gradual shrinking of the marsh areas there.

At the same time natural habitats are being destroyed in urban areas, new habitats are being created. Golf courses, cemeteries, garbage disposal sites, and sewage treatment plants all provide habitats for animals and plants that are sufficiently adaptable to take advantage of them. Introduced plants and animals may find these new habitats particularly suitable. For example, modern house construction has been cited as a major contributing factor in the increase in the number of Starlings and House Sparrows in urban areas. Cavities in louvered vents and unboxed eaves provide a great many suitable nesting sites.

Black squirrels and racoons and, to a lesser extent, skunks have adapted well to the urban environment; red foxes, red squirrels and chipmunks have not.

Rats, house mice, and many weeds of city environments depend on conditions provided by man for their abundance, as do the disease organisms that we seek to eliminate by treating waste water and the types of algae that appear as slime on the shores of Lake Ontario.

Birds that have adapted well to city conditions include House Sparrows, Starlings, Rock Doves (pigeons), Common Nighthawks, Robins and one bird that preys on them — the American Kestrel. There are resident Kestrels in downtown Toronto.

The Killdeer, a species of plover which nests on light-coloured sandy or stony soils where the browns and whites of its plumage camouflage it, still find a few suitable patches of sandy soil; and a few pairs have been observed adapting to a lack of suitable habitat by nesting on the gravel on the flat roofs of buildings.

The north shore of Lake Ontario represents an enormous pathway for migrating water birds. For migrating land birds, the lake presents an obstacle. The Toronto area is particularly attractive because it contains remnants of a diversity of habitats including open country, woodland, marshes, and the lake itself where the more than 200 kinds of birds that travel through the area can rest. The birds concentrate in the areas that are left.

In winter the Toronto waterfront plays host to a large number of waterfowl in addition to the Canada Geese, Mallards, and Black Ducks that are present all year and depend largely on "hand-outs" to survive. About 20,000 individuals of 24 species are counted every January.

In summer the Toronto area is the breeding ground of more than 75 species of birds, and a few more may breed in favoured localities or be present without actually breeding.

During some years the Toronto area experiences great concentrations of migrants. Small land birds which move south or north on a broad front usually at night crowd into gardens, parks, and ravines at dawn and spend the day feeding, gradually moving through the trees ready for the next night's flight. When the weather is bad, the number of birds present may increase for days on end. The result is, given the correct conditions, that over a hundred kinds of birds can be seen in one day in the Toronto area. These birds do not breed here, so they do not need the rather specialized habitats that breeding birds often require. What they do need, however, is food and cover, particularly along the lakeshore.

Although we know a great amount about some of the plants and animals that inhabit this city, the plant and animal communities are not well understood. There are many reasons for this. Scientists who study natural communities find urban areas complex to study because the communities have been so altered and disturbed. To add to the complexity of such studies, the distinction between what is wild and what is not becomes blurred. Cultivated species escape or are planted in areas that in time revert to a more natural appearance. Domestic cats act as effective predators on birds and small mammals.

Among introduced trees that have managed to adapt to city living is the Tree of Heaven or Chinese Sumac

(*Ailanthus altissima*). It thrives downtown in neglected yards, parking lots, lanes, and untended land around industrial buildings where it grows against buildings which protect it from the wind and give it warmth in winter.

Weeds such as toadflax, purslane, and tumbleweed are able to thrive on waste ground in the city and even in such places as on the median of the Queen Elizabeth Way.

Among wild plants that can be found growing in downtown Toronto is East Indian Plantain (*Plantago indica*), a plant that is not native to this continent. Doubtless it arrived here on a ship carrying cargo to the Toronto Harbour.

Another plant growing wild in the city is marine sand spurrey (*Spergularia marina*). This plant is not native to Toronto either. It comes from the east coast where it grows in conditions of high salinity created by the sea. In Toronto it grows near places where we store rock salt for use on our roads in the winter and in places where we store the salty snow we remove from the roads.

Two hundred years ago the Toronto area supported a great number of plant species. Many of these have not survived and a few are present only as remnants clinging perilously to ravine habitats. Glen Stewart Ravine contains a remnant stand of sassafras; Scarborough Bluffs and the Don Valley contain black walnut trees and witch hazel.

Some of the emphasis in the preceding examples has been on a few species that survive or increase because they are isolated in suitable habitats. Although they may seem trivial, in fact, they and the larger and more complex natural communities of the area are what make the natural history of the Toronto region so interesting.

While a few species of plants and animals manage to survive in the centre of the city, a greater variety survive in the outskirts of Metropolitan Toronto. Our knowledge of how and why this happens is fragmentary. However, research is being conducted by the Departments of Botany, Forestry, and Zoology at the University of Toronto, and in the Faculty of Environmental Studies at York University.

Current research is revealing how necessary it is to determine what the different habitats are within Metropolitan Toronto: the city centre with its high rise buildings, the outskirts of the city containing private gardens, ravine parks, old fields, inner factory areas, older residential areas such as Rosedale, newer residential areas such as Don Mills, outer factory areas, and new subdivisions in the outskirts. In each of these habitats the density and the height of the buildings as well as the type of landscaping around the buildings directly influence the amount and diversity of wildlife.

Further studies by botanists, foresters, and zoologists should help to explain much that is now obscure to us. For example, we need to know more exactly how it is that natural or semi-natural areas serve as links in maintaining wildlife diversity in and around Metropolitan Toronto. Certainly we would be wrong to think of each ravine or park as an "island of green space". These areas belong to a system or are part of a migratory route. Animals move about through these areas and thus redistribute themselves according to the food supply and living space available.

To some extent the river valleys, ravines, and parks serve as seed-banks for plant species. The seeds may be carried away from them to stock adjacent areas that contain fewer species of plants. Thus river valley and ravine parks provide valuable routes and reservoirs for maintaining a healthy diversity of wildlife in and around Toronto. Hopefully studies will help to identify more accurately the critical features of the different habitats within Metropolitan Toronto, the availability of suitable food supplies, whether there are sufficient breeding places, and the effect of various types of pollution, and so on.

Urban nature, then, is a tapestry produced by many conflicting and interacting forces. It was fundamentally climate and physiography that made Toronto a picturesque wilderness of oak woods, open prairie glades, maple, hemlock, and pine forests, extensive marshlands, and panoramic shorelines with crystal clear water.

The more we learn about plants and animals and their changing habitats the more we are able to recognize changes and adaptations and appreciate the drama that is going on in our natural areas.

## Chapter 4 River Valleys And Ravines

The river valleys and ravines of Metropolitan Toronto are among the city's most valuable assets. To the Indians the Rouge and Humber Rivers were important travel routes. Evidence has been found that shows they also fished for salmon in the rivers and grew corn on the floodplains. Many of the earliest settlers in the region inhabited the river valleys where they built dams and mills; for example, by 1860, ninety mills were operating on the Humber River. By 1895 the salmon were gone. Now the parks system corresponds closely to the pattern of river valleys and ravines. Citizens of Toronto have inherited a unique natural resource of which they can be especially proud, and which they should be particularly alert to preserve in a sound natural state. Many people living in Metropolitan Toronto realize this, and members of the various governments are becoming more aware of their responsibility for maintaining this unique inheritance.

As the settlement grew the valleys were regarded as a nuisance to be overcome or as the easiest and cheapest route for sewers, roads, and railways to follow. The steep-sided valleys became a real obstacle to growth. By the early 1960's some 840 acres of the original 1900 acres of ravine land in the city had been destroyed and replaced by houses, roads, and factories. A city the size of Toronto simply cannot afford this. Every effort must be made to see that the remaining areas of mature wooded slopes, wooded lowlands, and marshes, which are distributed along the six main streams flowing into Lake Ontario within Metropolitan Toronto, be allowed to remain in as natural a state as possible.



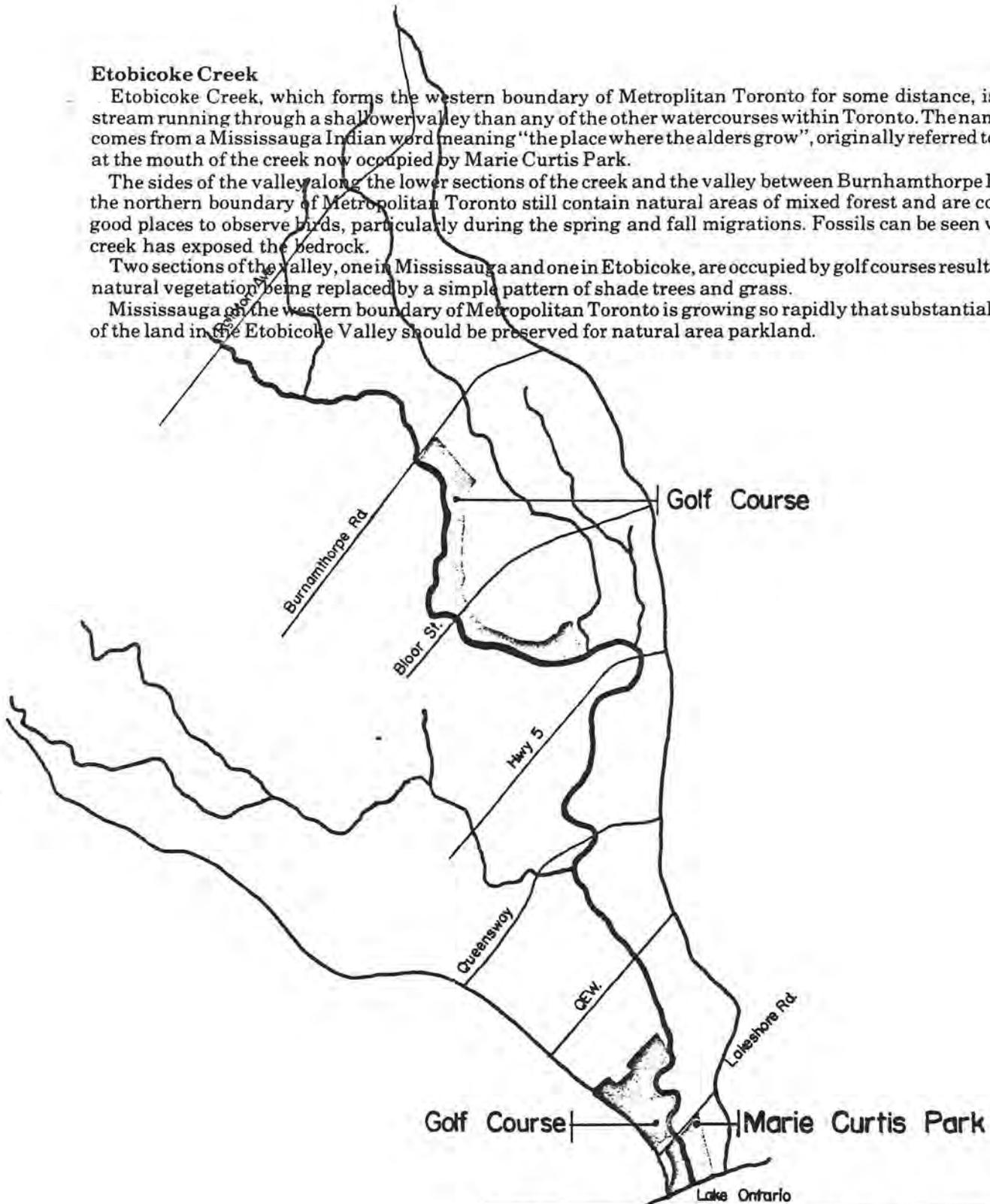
### Etobicoke Creek

Etobicoke Creek, which forms the western boundary of Metropolitan Toronto for some distance, is a small stream running through a shallow valley than any of the other watercourses within Toronto. The name, which comes from a Mississauga Indian word meaning "the place where the alders grow", originally referred to the area at the mouth of the creek now occupied by Marie Curtis Park.

The sides of the valley along the lower sections of the creek and the valley between Burnhamthorpe Road and the northern boundary of Metropolitan Toronto still contain natural areas of mixed forest and are considered good places to observe birds, particularly during the spring and fall migrations. Fossils can be seen where the creek has exposed the bedrock.

Two sections of the valley, one in Mississauga and one in Etobicoke, are occupied by golf courses resulting in the natural vegetation being replaced by a simple pattern of shade trees and grass.

Mississauga on the western boundary of Metropolitan Toronto is growing so rapidly that substantial portions of the land in the Etobicoke Valley should be preserved for natural area parkland.



**ETOBICOKE CREEK WATERSHED**  
Within Metropolitan Toronto

0 1/2 1 miles



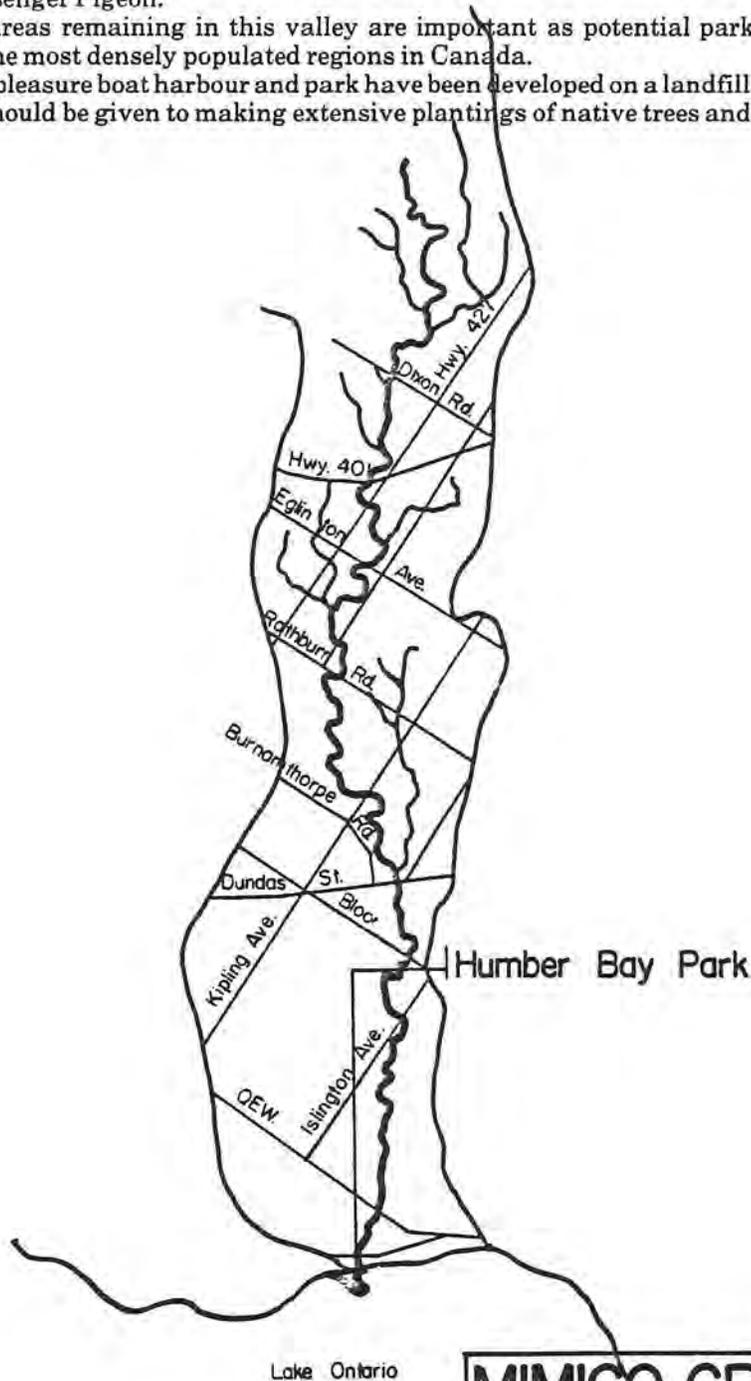
Toronto Field Naturalists' Club

**Mimico Creek**

The valley of Mimico Creek is shallow, and has been built in to the point where few natural areas remain — although some parts of the valley sides between Burnhamthorpe Road and Eglinton Avenue are still forested. The name, which comes from a Mississauga Indian word, means “place of the wild pigeon” because the extensive mixed hardwood and evergreen forest of the valley made it a favourite nesting site in the Toronto region for the now extinct Passenger Pigeon.

Any natural areas remaining in this valley are important as potential parkland because the creek flows through one of the most densely populated regions in Canada.

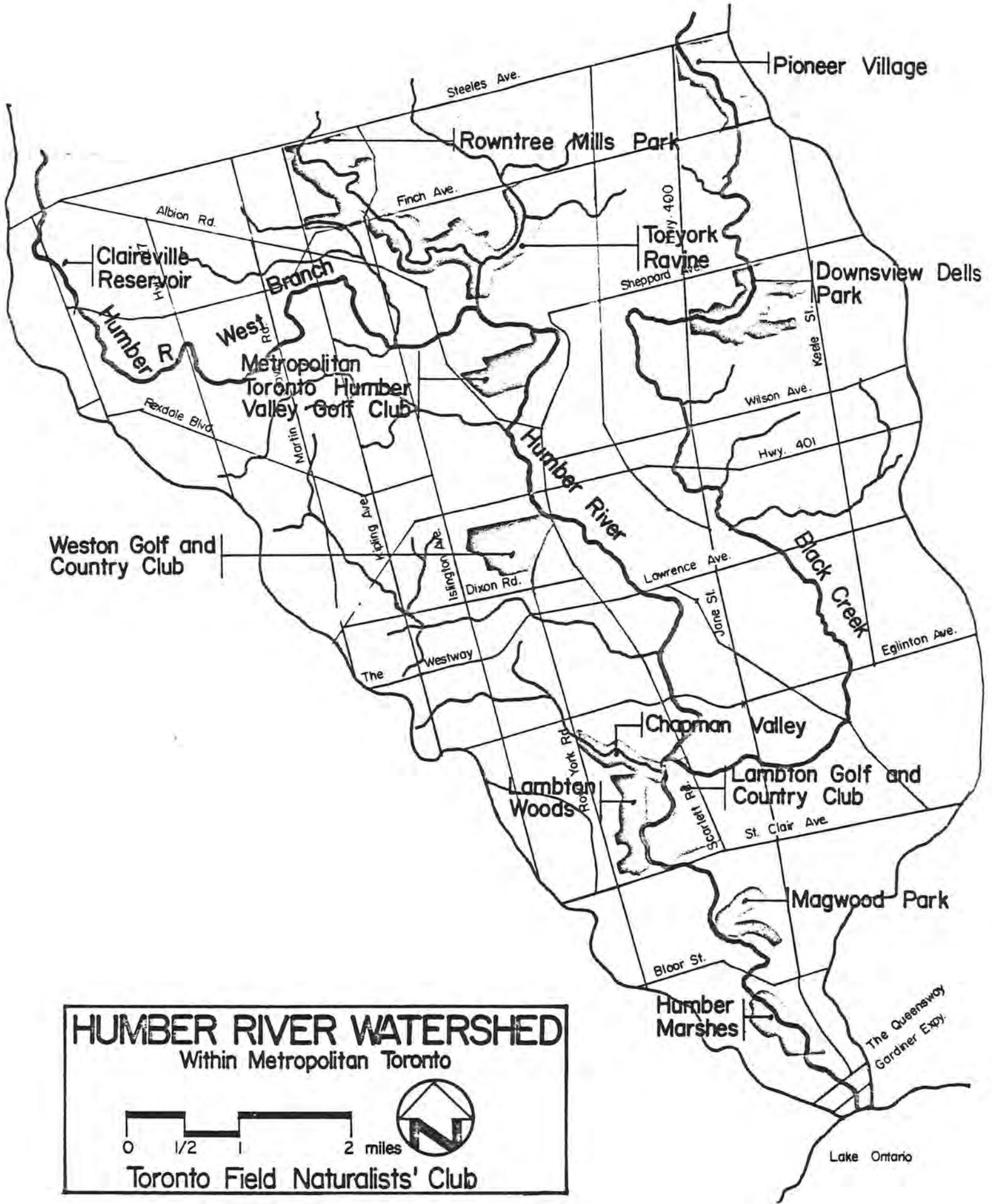
A substantial pleasure boat harbour and park have been developed on a landfill site at the mouth of this creek. Consideration should be given to making extensive plantings of native trees and shrubs in this area.



**MIMICO CREEK WATERSHED**  
Within Metropolitan Toronto



Toronto Field Naturalists' Club



**HUMBER RIVER WATERSHED**  
 Within Metropolitan Toronto

0 1/2 1 2 miles



Toronto Field Naturalists' Club

## **Humber River**

The Humber is one of the two main rivers flowing through Metropolitan Toronto. It is the valley of the Humber that contained the much-travelled historic portage route from Lake Ontario to Lake Simcoe and Georgian Bay. The name Toronto which meant "carrying place" or "meeting place" was the Indian name for the area at the mouth of the Humber River.

Since 1954 when more than eighty lives were lost in the valley as a result of the flood caused by Hurricane Hazel, the Metropolitan Toronto and Region Conservation Authority has purchased large parts of the entire valley within Metropolitan Toronto.

Between the river mouth and Bloor Street a series of marshes provides important habitat for marsh birds. These areas are also particularly attractive to migrating waterfowl, gulls, and at low water levels, shorebirds. The presence of the nearby Toronto Humber Yacht Club could threaten this important area.

Although many of the original marshes have been filled in, parkland with some natural habitat remains on both sides of the river. From Bloor Street to Dundas Street the sides of the valley are still heavily wooded, particularly at Magwood Park. (The Toronto Field Naturalists' Club is making a survey of this area.) North of Dundas Street to Highway 401 there are many areas of natural woodland and riverside scrub, but the most outstanding area is Lambton Woods on the west side of the river, a very rich mixed woodland area containing some tamarack and a remnant of cedar bog. Other good wooded habitats exist near Weston Golf Course.

North of Highway 401 the west branch of the Humber River, which enters the northwest corner of Metropolitan Toronto at the site of the Claireville Reservoir, meets the main branch of the Humber. Large natural areas are found here and much of the original vegetation remains, particularly along the main branch of the Humber River between the Metropolitan Toronto Humber Valley Golf Club to and including Rowntree Mills Park on the northern edge of Metropolitan Toronto.

The Club has prepared a short report on Toryork Greenbelt and St. Lucie Park. This area contains a small tributary of the Humber River. As with so many ravines in Toronto, the watercourse is heavily polluted and industries backing onto the ravine have dumped a great variety of material into it. Despite this the central portion of this area is quite attractive with white birch, beech, maple, cedar, willow and a variety of wild flowers, small mammals, and birds.

On the west branch of the Humber River a proposed building development at Thistletown threatens the quality of the oxbow lake area on the west side of the river just south of the intersection of Islington and Finch Avenues, if a rezoning of some eleven acres of land in the valley is permitted.

## *Chapman Valley*

There is nothing quite like Chapman Valley anywhere else in Etobicoke. The borough lacks the network of deep ravines that exists in other parts of Toronto. At the point where it enters the Humber River about half a mile north of Eglinton Avenue, the creek is unimpressive; however, between Scarlett and Royal York Roads, the creek flows through a deep well-wooded ravine containing a remarkable diversity of plants and animals. Part of this area is privately owned and part is managed by the borough of Etobicoke as Chapman Valley Park. As with most ravines in Toronto, a trunk sewer runs the length of the valley.

Main threats to the natural diversity of this area come from overuse, from well-meant attempts to tidy the area, and from construction upstream which adds to the silt already carried by the creek. A survey of this ravine by the Toronto Field Naturalists' Club has been completed, and is currently the only report from the borough of Etobicoke.

## *Black Creek*

This creek is a major tributary of the Humber River. It enters Metropolitan Toronto at Pioneer Village and flows south to Eglinton Avenue where it swings west to enter the Humber River at the site of the Lambton Golf and Country Club.

Black Creek flooded severely as a result of Hurricane Hazel in 1954. Since then the creek has been directed through a concrete spillway in many areas and much of the natural vegetation along the banks has been removed; for example, on the east side of Black Creek immediately south of Lawrence Avenue a poorly vegetated gravel and mud expanse of open soil has simply been left as waste land.

Downsview Dells Park, just west of Downsview Airport, appears to be a good example of a surviving natural area on Black Creek.

Any extension of Highway 400 southwards would likely have adverse effects on Black Creek, particularly on the section from north of Wilson Avenue to south of Eglinton Avenue.

The Toronto Field Naturalists' Club is preparing short reports on some areas of Black Creek, and owns a collection of 70 coloured slides taken in May 1975 illustrating various environmental aspects of the creek.



this . . .

or this?



### **Rennie Park-West Pond**

This small ravine is located west of Grenadier Pond and immediately west of Ellis Avenue. Although much of the ravine is occupied by a formal park and the boundary includes parts of private properties, the more southerly part near the pond is forested. The forest, pond, stream, and cat-tail marsh of the area contain a great diversity of native plants.

As a result of a request by the Commissioner of the City Parks and Recreation Department, a preliminary survey of this ravine has been made by the Club.

### **High Park**

Although many people do not think of this park as a ravine, it contains the lower valleys of at least three small creeks which formerly flowed into Lake Ontario. Because of the steep slopes of these ravines, a fair amount of native vegetation remains including specimens of especially old native trees. Remnants of the oak forest habitat, once so common west of Toronto, can still be seen in the park. A remnant of semi-prairie habitat remains on the northeast side of Grenadier Pond. Plants like sweet fern and blueberry as well as some grasses not found elsewhere in York County can be seen here. Examples of southern vegetation to be seen in this same area include sassafras and black oaks.

The northwest end of the park and particularly the northwest bank of Grenadier Pond are excellent places for land birds especially during migration, and many rarities have been recorded there.

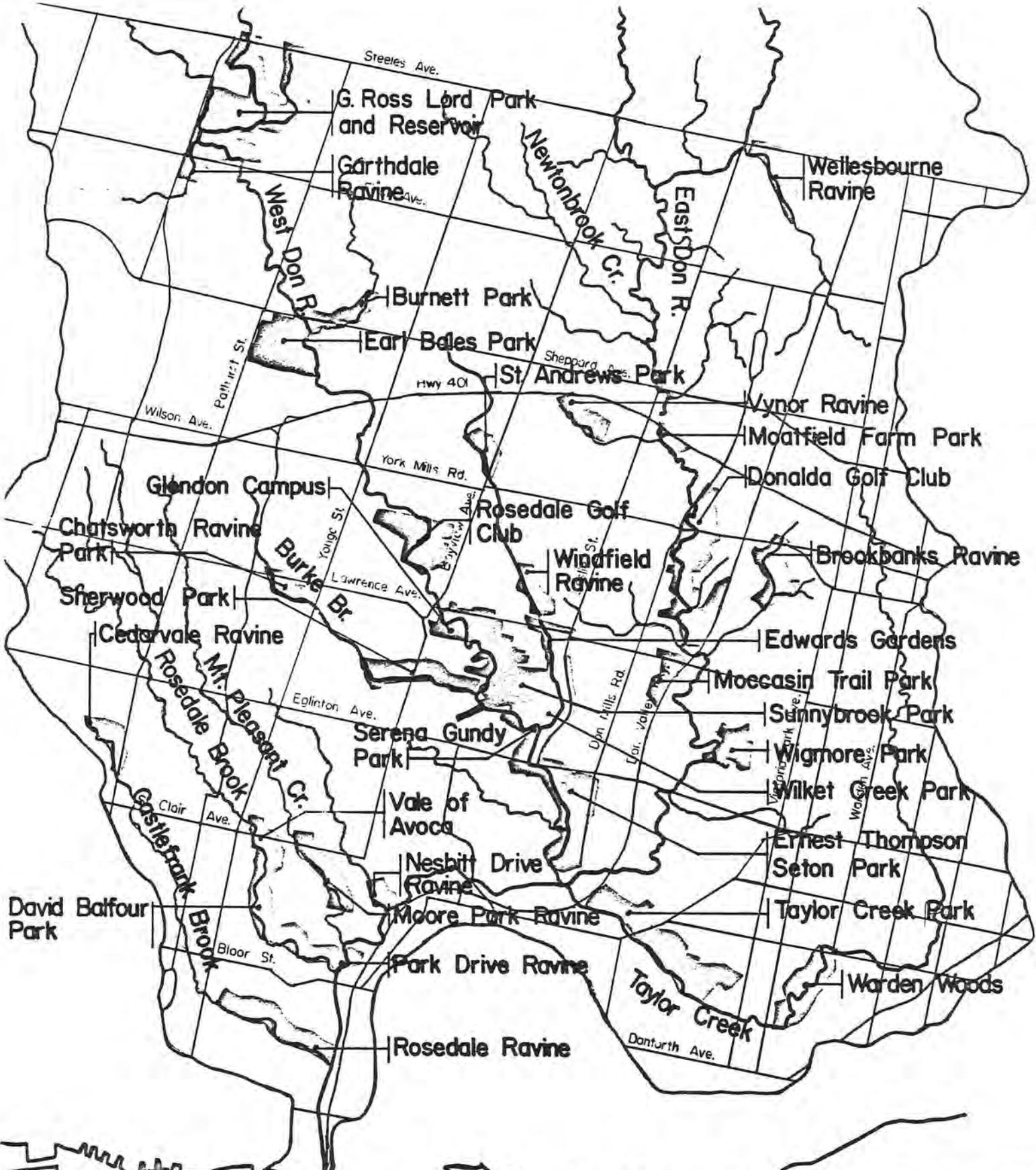
During winter ducks range to and from Sunnyside Beach and the northern end of Grenadier Pond where the water remains unfrozen.

This park, which covers about 400 acres in a densely populated part of Toronto, contains about three miles of nature trails, excellent views of Lake Ontario, animal paddocks, duck ponds, and opportunities for fishing. It also contains outstanding floral displays in gardens located on the southeast side of Grenadier Pond, athletic facilities including an outdoor swimming pool in summer, an artificial ice rink in winter, tennis courts, and children's playgrounds.

An historic site located in the southern end of the park is Colbourne Lodge, formerly the home of Mr. and Mrs. John C. Howard who gave 165 acres of this land to the city in 1873 for use as a park for the citizens of Toronto.

Although parts of the park remain much as they were in the last century, the natural areas are receding as a result of heavy use and the tendency to tidy wilder parts of the park.





**DON RIVER WATERSHED**  
 Within Metropolitan Toronto

0 1/2 1 2 miles

Toronto Field Naturalists' Club

Lake Ontario

## **Don River**

The Don River is perhaps Toronto's best known river. It flows into Lake Ontario through the heart of downtown Toronto, and was at one time more heavily polluted than it is now. Reduction of effluent from industries such as the Domtar Paper Plant and construction of sewage plants in recent years have eased this problem; however, construction of the Don Valley Parkway and the Bayview Avenue Extension in the 1950's has created noise and air pollution in the valley.

Originally the Don River south of the "forks", the junction of the west branch, the east branch, and Taylor Creek at Don Mills Road, meandered through a broad marshy valley. Late in the nineteenth century the river was dredged, channelled, and straightened for a considerable distance, and most of the marshes have long since been filled in or drained. Now two major roads and two railway lines occupy much of this part of the valley.

North of Bloor Street the Don Valley Brick Works, the Domtar Paper Plant, and a sewage disposal plant occupy many acres of land. Also located in this part of the valley is Todmorden Mills, a settlement dating from the eighteenth century and now restored as a museum.

Although few extensive natural areas remain in this area, the valley floor contains some willows and native shrubs and most of the slopes are still forested.

Near Bloor Street three streams enter the Don River from the west.

The Club is preparing a survey of a fourth tributary (Nesbitt Drive Ravine). This area has been altered by construction of the Bayview Avenue Extension and a now-abandoned apartment building.

### *Castle Frank Brook*

The name of this brook comes from the name of the summer residence of Governor Simcoe and his wife who lived in the Toronto region in the 1790's. Mrs. Simcoe's descriptions of the Don Valley in the vicinity of Castle Frank Brook where their summer residence was located should be read by anyone visiting this area to appreciate the changes that have taken place in the lower Don watershed.

The creek itself flows through the Cedarvale Ravine and Nordheimer Ravine (from where it flows through a sewer to Park Drive Ravine). It originally flowed through the Rosedale Valley Ravine before entering the west side of the Don River south of Bloor Street.

Cedarvale Ravine, with its variety of habitats, sheltered location, permanent stream, and numerous feeding stations in adjacent gardens has been a well-known place to observe birds throughout the year; however, in recent years its quality has been diminished. It was the proposed route for an expressway and now is the route of a subway actually under construction. Sewer construction in the 1960's left a scar on the floor of this ravine and the Nordheimer Ravine. Current plans call for the restoration of these areas to a partially natural state after completion of the subway. The result of this experiment may be significant for the future of ravines within the Metropolitan region.

A heavily-travelled roadway and a nature trail run the length of the Rosedale Valley part of the ravine. Most native tree species are still represented in this well-wooded valley although many introduced plants have become established.

### *Rosedale Brook (also known as Yellow Creek)*

This creek, which has its source in Mt. Pleasant Cemetery, flows through the Vale of Avoca, David Balfour Park, and Park Drive Ravine to enter the west side of the Don River just north of Bloor Street.

Nature trails have been developed throughout the length of the ravine. The creek itself has been channelled for most of its length since sewer construction in the 1960's. The natural flow now seen in the Park Drive Ravine section comes from the Nordheimer Ravine a few miles away. In spite of its proximity to the central part of such a large city, this area contains a remarkable diversity of wildlife. The Club is preparing a survey of Park Drive Ravine.

### *Mount Pleasant Brook (Mud Creek)*

In the early part of this century a commuter railway ran through the ravine containing this creek. Traces of the old roadbed are still evident and, in fact, a nature trail has been developed on it.

This ravine, known as the Moore Park Ravine and as the Beltline Ravine, is partially in the borough of East York and partially in the City.

Some of the most detailed bird studies done anywhere in Toronto have been made in this well-wooded area which is considered an excellent location to observe migrating birds during May.

A good view into the quarry of the Don Valley Brick Works is possible at the southern end of the ravine.

### **West Don River**

The entire valley of the West Don River is parkland from the "forks" at Don Mills Road to Glendon Campus of York University at the intersection of Lawrence and Bayview Avenues. This is perhaps the largest remaining natural area in Metropolitan Toronto except for parts of the valleys of the Rouge River and Highland Creek.

In 1974 a proposal was made to join two sections of Lawrence Avenue by building a bridge across the West Don River at Bayview Avenue. Such construction would have had a disastrous effect on this valuable natural area already damaged by the construction of the Bayview Avenue Viaduct. Pressure from concerned and knowledgeable citizens with environmental advice from the Toronto Field Naturalists' Club helped to defeat this proposal at a meeting of the North York Borough Council in September of 1974. The threat is still there however because the road allowance still shows on official plans for this area.

North of Glendon Campus is a small extension of this natural area. Beyond this the valley is occupied by the Rosedale Golf Club, a residential area, the Metropolitan Toronto Don Valley Golf Course, and Earl Bales Park which was formerly the site of another golf course. Although this means that much of this part of the valley contains a simple pattern of mown grass and trees, small areas of natural vegetation remain.

The Don Valley is deep and steep-sided throughout most of its length within Metropolitan Toronto. This has helped maintain the forest that still grows on its slopes. The valley west of Bathurst Street to Finch Avenue is quite wild and should be preserved in its natural state. Part of the land is privately owned; part of it is maintained by the Borough of North York; and part of it, by Metropolitan Toronto Parks Department.

Between Finch and Steeles Avenues West, the West Don River flows through the G. Ross Lord Park and Reservoir. The valley of a small tributary running from south of Finch Avenue meets the West Don River at the reservoir and is of value for the diversity of habitats it contains. The area is referred to as Garthdale Ravine and is the property of the Metropolitan Toronto and Region Conservation Authority. The Toronto Field Naturalists' Club is preparing a survey of this ravine.

#### *Wilket Creek (originally known as Milne Creek)*

Wilket Creek meets the West Don River in Sunnybrook-Serena Gundy Park. South of Edwards Gardens at Lawrence Avenue the valley through which Wilket Creek runs is very narrow and contains a carefully-developed footpath. It is one of the most beautiful fairly natural small valleys left in Metropolitan Toronto, and is known for its diversity of residential bird species, its profusion of spring wildflowers, and variety of shrubs and ferns.

The upper reaches of Wilket Creek from Lawrence Avenue East to York Mills Road at Bayview Avenue are still quite natural.

The valley from York Mills Road to Timberglade Crescent and Bridlepath is maintained by the Borough of North York as parkland. If the wilder section from there south to Lawrence Avenue were acquired by the Borough of North York, the whole area would make an excellent natural area park for walking and contemplative recreation.

The Toronto Field Naturalists' Club is preparing surveys of the following areas in this valley:

*St. Andrews Park*, a North York Park located between Knollwood and Bayview Avenue

*Windfield Ravine*, partially private land, partially North York land, York Mills Road at Bayview Avenue to Lawrence Avenue East at Edwards Gardens.

*Wilket Creek Park*, a Metro Park, from Lawrence Avenue East to the West Don

#### *Burke Brook*

Burke Brook meets the West Don River in Sunnybrook Park. For the last mile before it enters the West Don River it passes through what is probably the most undisturbed of any small ravine in the central part of Toronto. A remarkable variety of wildlife has been found here. Upstream from Bayview Avenue the brook flows through a series of parks including Sherwood Park (survey in preparation) and Chatsworth Ravine Park, the site of the Toronto Field Naturalists' Club's first detailed ravine study.

### **East Don River**

Although the Don Valley between the "forks" of the Don and Lawrence Avenue contains a golf course and a main railway line, several natural areas have managed to survive because of their relative inaccessibility. One of these areas is Wigmore Park. The Club has published a survey of this ravine.

North of Lawrence Avenue the valley is occupied by the Donalda Golf Club. From north of York Mills Road to Highway 401 the valley lands are mostly meadows until Moatfield Farm where the valley is forested.

The valley between Sheppard Avenue and Finch Avenue is quite wild with mature woodlands, open meadows, and some marshes. A proposal has been made to retain this area as a natural area park. North of Finch Avenue the land is more open but some good examples of mixed woodlots remain near Steeles Avenue.

The Toronto Field Naturalists' Club is preparing short reports on the following sections of the East Don River.

*Moccasin Trail Greenbelt*, a North York Park, Donway East to Don Valley Parkway

*Moatfield Farm Area*, partly maintained by North York, partly owned by Metropolitan Toronto and Region Conservation Authority

*Vyner Ravine*, a North York park, from Silvergrove Road to Bannatyne Drive

*Wellesbourne Ravine*, a North York park and private land, Don Mills Road at McNicoll Avenue to Leslie Street at Steeles Avenue

### *Taylor Creek (Massey Creek)*

This creek which flows through a series of parks between Warden Avenue and the "forks" of the Don is a major tributary of the East Don River and meets it near its junction with the West Don River. Although the creek has been channelled throughout its length its valley sides are well-wooded in Warden Woods and the part of Taylor Creek Park between the Woodbine Bridge at O'Connor Drive and the "forks" of the Don. Taylor Creek Park between Victoria Park Avenue and the Woodbine bridge has been damaged by house and garden construction on the valley slopes. This part of the park contains a well-used walking trail and a "vita parcours" fitness course. Feeder ravines of Taylor Creek contain valuable remnants of woodland and creek habitats which are somewhat protected by their inaccessibility.

The Club is preparing surveys of Taylor Creek Park and Warden Woods.

### *Brookbanks Ravine*

This ravine contains a small tributary of the East Don River. The western end of the ravine is the property of the Donalda Golf Club; the eastern end is a North York park. The creek was given the name Deerlick about 1841 when deer and salmon both could be found in the area. The ravine contains a variety of native plants and animals although aquatic species are scarce due to pollution of the creek.

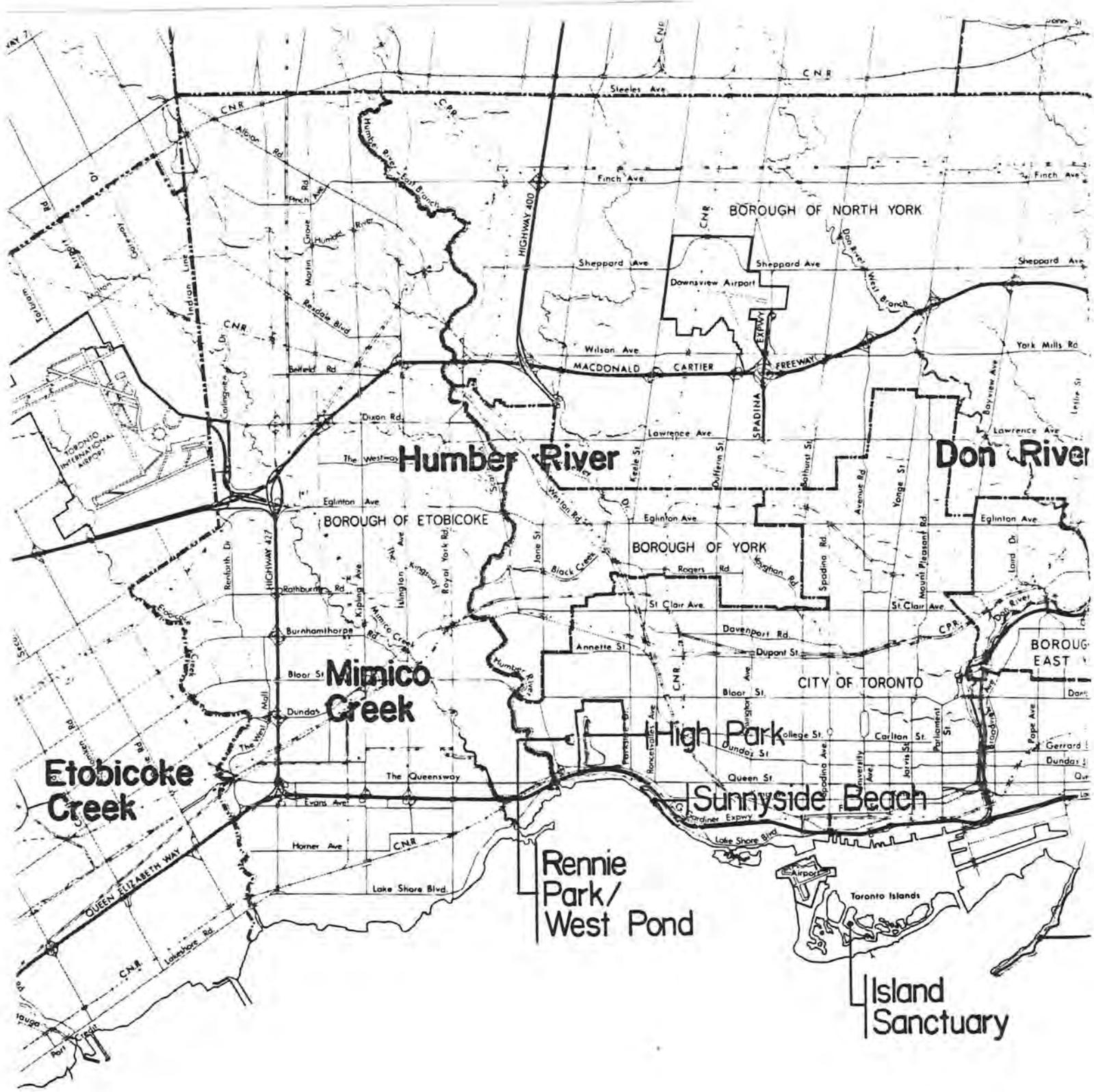
Tidying by the parks department and construction on the edge of the ravine by homeowners are the most immediate threats to this area.

A survey of this area has been published by the Club.

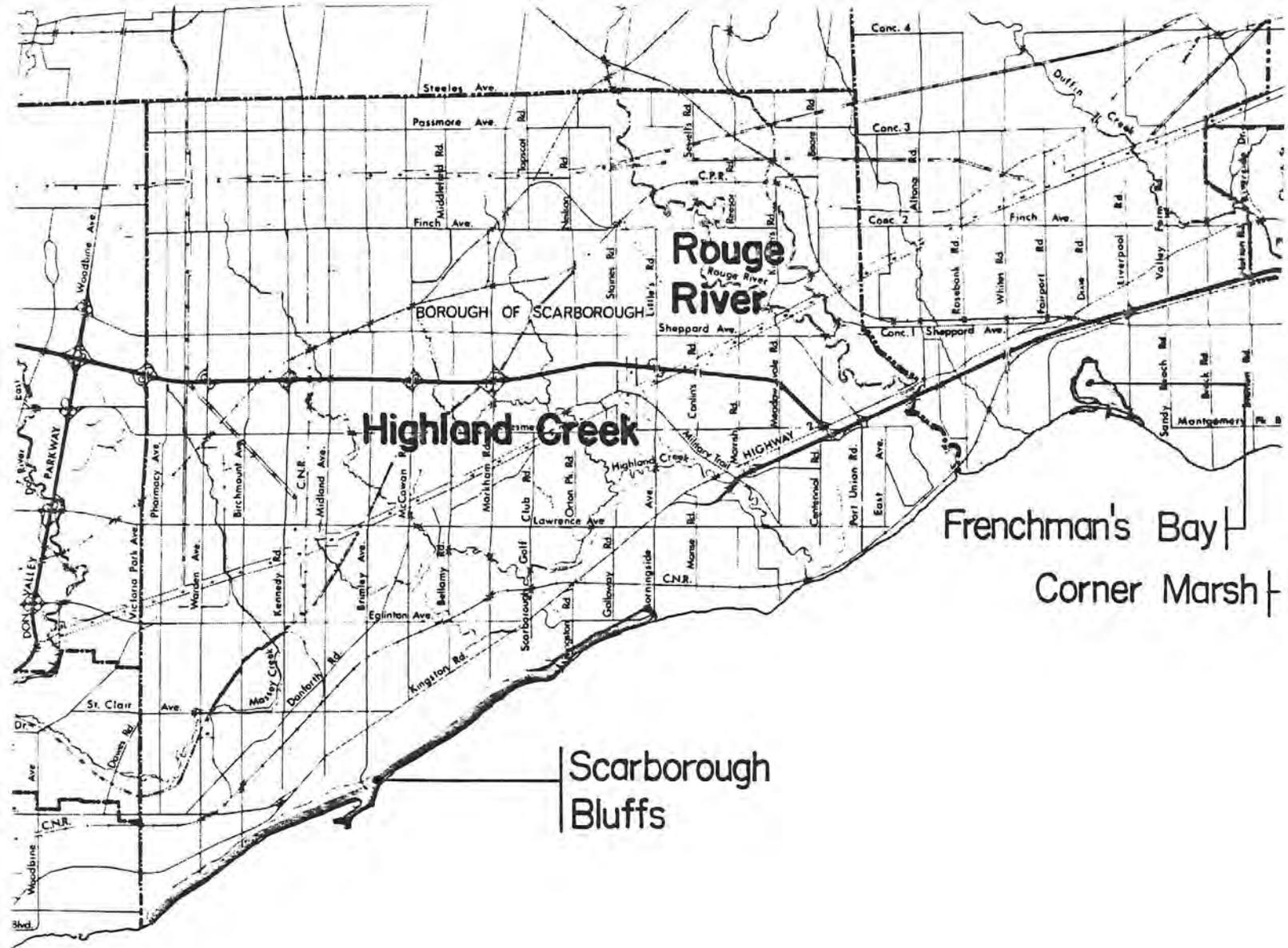
### *Newtonbrook Creek (originally known as Wilket Creek)*

This tributary of the East Don River was substantially altered during 1975 when gabions were constructed along its banks for the last mile before it meets the East Don River; however, its slopes remain relatively wild. The ravine through which this creek runs could be of value as part of the major natural area park proposed for the East Don River between Sheppard Avenue and Finch Avenue.

The Toronto Field Naturalists' Club is making a survey of the section of this ravine from Bayview Avenue at Finch to the East Don River. A short report has been prepared for the section from Willowdale Avenue at Revcoe Drive to Bayview Avenue at Finch Avenue.



← Rattray Marsh  
 (26 miles west of Port Credit)

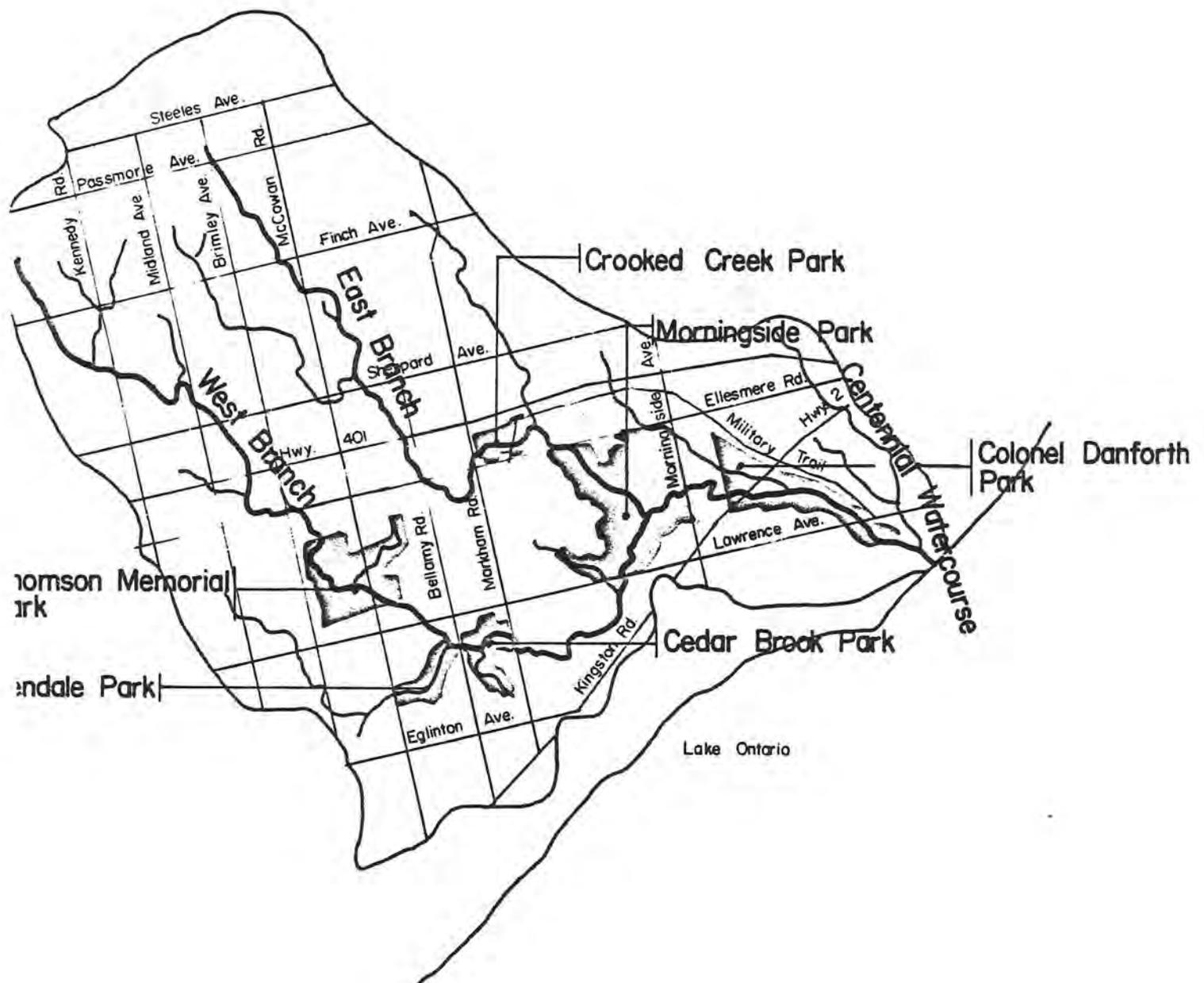


Leslie Street Spit

**METROPOLITAN TORONTO AND VICINITY  
RAVINES AND WATERFRONT**

0 1/2 1 2 miles

**Toronto Field Naturalists' Club**



**HIGHLAND CREEK WATERSHED**  
 Within Metropolitan Toronto

0 1/2 1 2 miles

Toronto Field Naturalists' Club

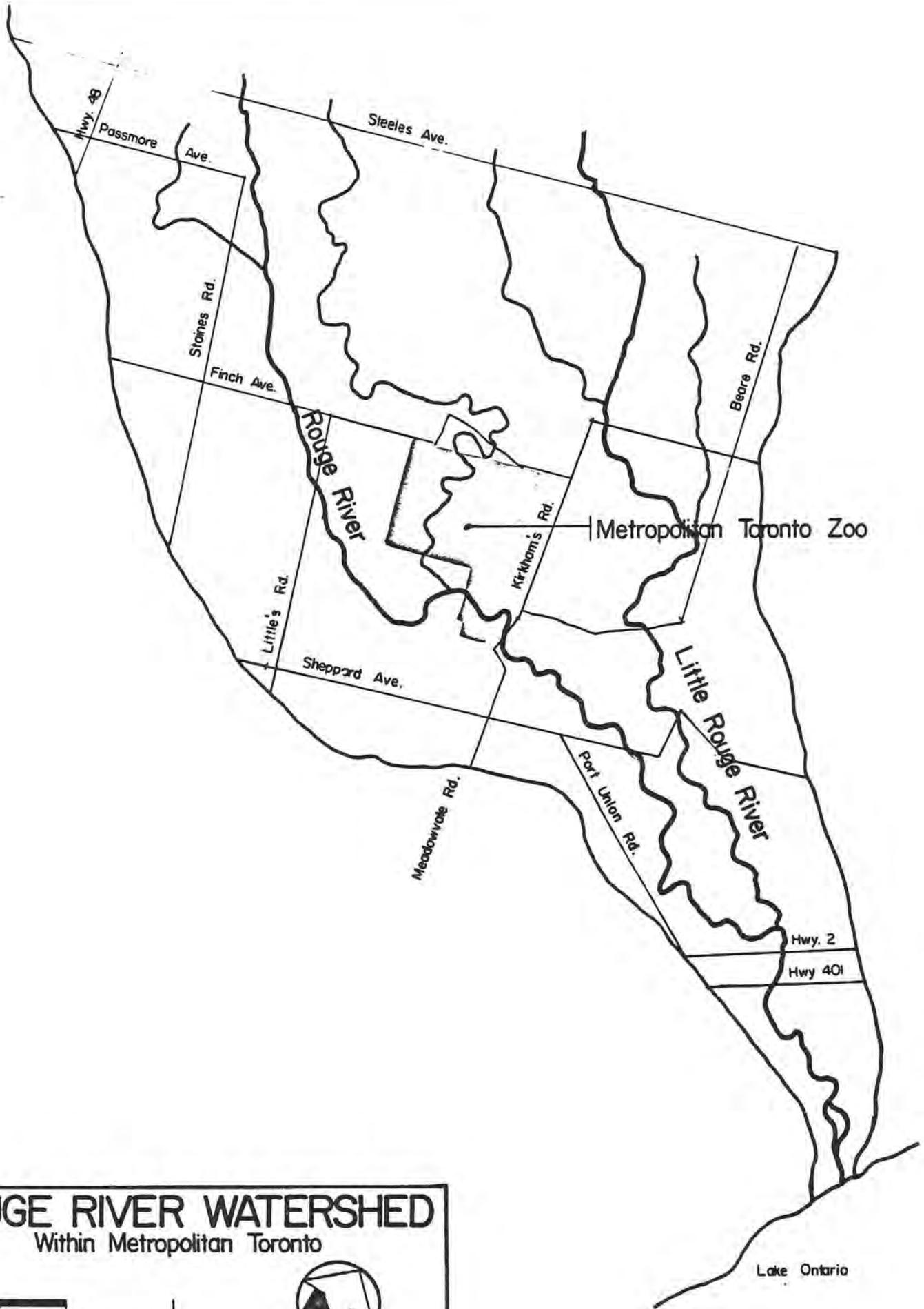
### **Highland Creek**

Highland Creek is shorter than either the Humber or the Don Rivers. However, unlike Etobicoke and Mimico Creeks, its valley is deep and steep-sided in its lower reaches — it flows into Lake Ontario in the Scarborough Bluffs area. It has two branches which meet in Morningside Park. North of Highway 401 the valley of the eastern branch is shallow and few undeveloped areas remain. South of Highway 401 some shallow areas have been filled in; others have been developed into formal parks such as Thomson Memorial, Bendale, and Cedar Brook. East of Markham Road, the valleys through which the two main branches of the creek pass are deep and contain valuable natural areas. This is especially true of the eastern branch at Crooked Creek Park south of Highway 401 between Markham Road and Military Trail.

Morningside Park is an excellent example of a natural area park. The valley downstream from Morningside Park and the grounds of Scarborough College is deep and reasonably undeveloped — compared to the southern part of other river valleys within Metropolitan Toronto. It is hoped that this can be maintained as the population pressure increases in the area.

The Centennial Watercourse, a small tributary of Highland Creek which rises near Highway 2 and Meadowvale Road and meets Highland Creek near its mouth, contains valuable natural areas.

The Club is preparing a survey of Crooked Creek Park Ravine.



**ROUGE RIVER WATERSHED**  
 Within Metropolitan Toronto

0 1/2 1 miles

Toronto Field Naturalists' Club

## **Rouge River**

This quite long river flows through the northeast corner of Metropolitan Toronto. Part of the valley of the Rouge River within Metropolitan Toronto is occupied by the Metropolitan Toronto Zoo. North of the zoo is some of the most spectacular scenery in the whole Toronto area with steep slopes rising 150 feet above the river as it meanders through attractive maple-hemlock woodlands.

Most of the Rouge River Valley is undeveloped — although it does contain some abandoned farmland and estates. The valley retains forested slopes along most of its length. In some areas the flat bottomland is subject to annual flooding.

An extensive marsh exists at the mouth of the Rouge River. The size of the marsh is not necessarily permanent. It fluctuates considerably with changes in the water level of Lake Ontario.

The Rouge River has one major tributary, the Little Rouge River, located east of the main branch. They meet not far upstream from Lake Ontario. The streams are parallel until the site of the zoo. These parallel valleys increase the complexity of the valley system and create a larger wilder area of natural habitats than would otherwise be present.

High priority should be given to preventing any further pollution of the river and development of this major river valley.

## Chapter 5 The Waterfront And Island

By no means all of Toronto's residents think of it as a city on a lake. Yet Lake Ontario, a geographic and economic feature of great importance, is responsible for Toronto's location and much of its subsequent growth. The lake provides access to the city for ships which connect the harbour to the whole world; it affords conditions that encourage the location of various types of industry; it is the main source of drinking water for Metropolitan Toronto's population, and the outlet for treated sewage and other wastes; and it offers opportunities for many types of active recreation such as boating, fishing, and swimming. It also provides the setting for such activities as going to the island for a picnic, walking along the bluffs, or watching the boats from a lakeside parking lot.

Nearly every part of the waterfront has something of interest for anyone who enjoys the outdoors. Although much of the central part of the waterfront is highly developed, recreational opportunities exist even here. Even those who are not naturalists in any conscious sense enjoy the opportunities that the lake offers.

Associated with the waterfront are various wildlife habitats, natural landforms, and the modifying influence of the lake on both summer and winter temperatures. This diversity makes Toronto one of the most interesting natural regions in Canada. However, determined measures are needed to protect and conserve the remaining areas along the waterfront. The quality of some has been eroded, and others are under pressure for development. For reasons of space, this report concentrates on a relatively few that are of special significance.

### **Ratray Marsh Area (Jack Darling Memorial Park)**

To the west of Metropolitan Toronto, development along the lakeshore has resulted in the destruction of almost all natural areas between Toronto and Hamilton. Only the Ratray Marsh area at Clarkson has remained undeveloped. Formerly the estate of Major J.H. Ratray, this area contains a great diversity of habitats including 2800 feet of beach, 24 acres of wetland, meadow, brush, white pine forest, and aspen woods. Although about 100 acres of this area has been acquired by the Credit Valley Conservation Authority, much of it has been damaged by construction of a nearby housing subdivision in 1967 and construction of a pipeline across its northern end in 1975. There is a chance that the area may recover if it can be protected from further despoliation.

### **Humber Mouth and Sunnyside Beach**

Although the western section of the lakeshore of Metropolitan Toronto is heavily used for active recreation, it is also of interest because of the large number of birds that are attracted to it. The lakeshore from the mouth of the Humber River to Sunnyside Beach is a major wintering ground for ducks; the breakwaters along Humber Bay and the Exhibition waterfront afford loitering areas for gulls (including such uncommon species as Glaucous Gulls and Iceland Gulls in winter); and the beaches that remain provide resting places for shorebirds especially in the fall. Many ducks range to and from the lake and the adjacent Grenadier Pond in High Park. The whole forms a logical unit. The main threat to this section of the waterfront comes from the increasing number of small boats that move close to the lakeshore and disturb the concentrations of waterbirds.

### **Toronto Island**

Probably the most significant natural area along the whole waterfront is Toronto Island, even though it is heavily used for recreation and is the site of a residential area and an airport. The most important natural area is located in the wildlife sanctuary near the island filtration plant. Although the Parks Department uses part of the sanctuary as a maintenance yard and a dump, most of the area is reasonably undisturbed. It is a resting place for a great variety of migrating birds including many rarities to the region. During the fall it attracts one of the greatest concentrations of Saw-whet Owls anywhere in the world. It provides a sanctuary and breeding grounds for geese and ducks.

Toronto Island also supports a breeding colony of gulls, provides shelter for many species of ducks in winter, and contains an excellent resting place for migrating shorebirds along the western beach.

The wild areas of the island are perhaps most important because of the rare plants and unusual habitats found there. Fringed gentian and nodding ladies' tresses orchid are not commonly found so close to a heavily populated region. Unusual habitats include beach strands, wet meadows, lagoon edges, and dunes. Some of these are no longer found within thirty miles of Toronto.

The woodlands are composed mostly of cottonwood with crack willow along the edges of pools and lagoons; and the understory thickets consist of red-osier dogwood and willow.

Recent studies have revealed an extensive fish population in the waters of the island's lagoons. Species found in summer are alewives, yellow perch, bluegill, and carp, and a few northern pike and largemouth bass. In colder weather the waters may also contain predators such as rainbow trout and coho salmon, which have increased in numbers as a result of stocking by the Ministry of Natural Resources.

The preservation of such a valuable area so close to the downtown has been an outstanding accomplishment of the Metropolitan Toronto Parks Department. There have been many proposals to develop the island in ways that would destroy the unique character of its natural areas. It is a continuing task to resist such proposals and to ensure that the quality of the island's natural areas is preserved.

#### **Leslie Street Spit (Foot of Leslie Street and Aquatic Park)**

A new, but nevertheless important, area is the headland to the south of the Metropolitan Toronto Sewage Treatment Plant at the foot of Leslie Street. For many years this apparently derelict area has been noted as a place to find many kinds of migrating shorebirds, longspurs, and Short-eared Owls. The headland has now been extended by landfill creating a long spit designated to become an aquatic park for active recreation. This area has already become an attractive habitat for a number of birds — it has attracted a breeding colony of terns, many shorebirds during fall migration, and Snowy Owls and Snow Buntings in the late fall. Many species of plants are colonizing the area.

The headland is the property of the Toronto Harbour Commission. Ideally the area should be left as undisturbed as possible. However, its attractiveness could be enhanced by planting trees at intervals along its length, by creating ponds to provide habitat for shorebirds, and by making the southern end of the spit a natural area where appropriate native trees and shrubs would provide food and shelter for migrating birds and insects, especially butterflies.

#### **Scarborough Bluffs**

The most spectacular waterfront scenery on the north shore of Lake Ontario is provided by the Scarborough Bluffs. This formation extends for nine miles along the eastern lakeshore within Metropolitan Toronto, and in places the bluffs tower 300 feet above the water. Much of the land at the top has been used for housing, and in places the bluffs have been defaced by dumping, but large sections in public or institutional ownership have been preserved in a more or less natural state. Extensive woodlands in several locations contain many native plants and animals. Grassed parks at the top edge of the bluffs provide good opportunities for observing waterfowl and migrating hawks in the fall. A landfill park at the foot of Brimley Road provides access to the foot of the bluffs and an excellent view of the lakeshore. Farther to the east similar landfill park areas are being created at Guildwood and East Point to increase access to the lake.

#### **Eastern Waterfront from Rouge River to Duffin Creek**

To the east of Metropolitan Toronto the mouths of the Rouge River and Duffin Creek, together with the remaining undeveloped parts of Frenchman's Bay, constitute the best remaining examples of marsh habitat along the lakeshore.

Corner Marsh at the mouth of Duffin Creek and its adjacent woodlands and old fields is an outstanding area for many kinds of birds including many rarities. This area is used by fishermen and educators, but otherwise is relatively undisturbed.

The mouth of the Rouge River is used extensively for boating and swimming, and its marshes provide nesting grounds for several species of birds including the rare Least Bittern.

The marsh at Frenchman's Bay is a favoured place for Marsh Hawks and herons, and many kinds of uncommon shorebirds during migration.

These three marshes and the undeveloped areas inland from the lakeshore are important refuges for a great many migrating and breeding birds. It is disturbing to note that so far municipal planning in the metropolitan region has given insufficient recognition to the importance of this last open space with access to the lake. Development pressures are threatening the undeveloped lands, especially with government plans to stimulate growth east of Toronto, and plans for the waterfront do not seem to recognize the vulnerability of the marshes to increased boating — boating that could take place equally well away from the marshes.

## Chapter 6 Recommendations and Conclusion

### Prospects for the Future

The preceding chapters have presented an idea of the varied and rich heritage of natural resources — the forested river valleys and ravines and the extensive lakeshore — that Toronto is so fortunate to possess. This heritage cannot be taken for granted. It will be increasingly under pressure from development proposals as the population steadily grows. (By the year 2000 the population of Metropolitan Toronto is expected to have increased by 700,000.) Any undeveloped land will be seen as ripe for development.

At least one natural area described in this report is being considered as the site of a housing development; several others are being altered by construction on their edges; and the Cedarvale-Nordheimer Ravine is being damaged by construction of the Spadina subway line. Activities such as these will only increase as the population increases.

The need for the “islands of peace” provided by natural areas, for places to go to escape temporarily from the pace and crowding of city life, and for contact with the natural world will be felt more as residential densities increase. We must set aside space where people can simply “be” rather than “do”, which means planning for this kind of land use. Careful management of areas already designated as parkland is also required so that natural areas continue to be available for recreation.

We must be aware that once a natural area is paved over, it cannot be replaced. Although we can construct an artificial park, we can never recapture the unique character of a flourishing natural area. We must take steps *now* to protect, husband, and enhance the remaining natural areas within Metropolitan Toronto so that future generations can enjoy the same natural heritage that exists today.

### Many Governments

One fact that makes protection of natural areas difficult is that more than one department in more than one government may be responsible for a particular area. For example, Etobicoke Creek forms the boundary between Mississauga and the borough of Etobicoke in Metropolitan Toronto. This means that more than one municipality is involved in decision-making for the river valley. As well, the Metropolitan Toronto and Region Conservation Authority is responsible for the floodplain.

Even planning for a particular area may involve several governments; for example, although planning for the waterfront between the western boundary of the Etobicoke watershed and the Ajax-Pickering Beach is the responsibility of the Metropolitan Toronto and Region Conservation Authority, responsibility for planning the central waterfront between Dufferin Street and Coxwell Avenue is also shared by the City of Toronto Planning Board, the Toronto Harbour Commission, the City Parks Department, the Metropolitan Toronto Parks Department, the Metropolitan Toronto Works Department, and the Federal Government.

Frequently governments have different or even conflicting objectives. A Conservation Authority views a river in terms of its flood potential; a municipality may use a river to carry away its sewage; and another may want to use the river as a public recreation area. Thus the use one government wants to make of a river may conflict with or even preclude uses planned by another.

For an individual wanting to protect a ravine, for example, the route may be through a maze of governments and is usually confusing and frustrating. All too often it is impossible to find one authority that will deal effectively with a problem. A uniform and well-coordinated policy regarding natural areas is required from all governments.

### Recommendations

The Toronto Field Naturalists' Club has looked at the natural resources and some of the natural areas within and adjacent to Metropolitan Toronto and has made specific recommendations about these areas. The purpose of this chapter is to make policy recommendations for the conservation and management of natural areas in and around Metropolitan Toronto.

#### Open Space Planning

1. The Toronto Field Naturalists' Club recommends that the Metropolitan Corporation and all municipalities within and adjacent to Metropolitan Toronto incorporate into their official plans

**policy statements that explicitly recognize the conservation of natural areas as an important aspect of planning.**

Areas to be conserved should include lands in the river valleys, ravines, and along the lakeshore. An area that belongs to *any* of the following categories should be conserved.

*Hazard lands:* those areas unsafe for human settlements. They may include steep slopes, floodplains, areas of poor drainage.

*Sensitive Areas:* those areas where human settlements and other man made development would damage the environment. They may include wooded areas, bogs, marshes, swamps, ponds, streams, or other features such as bird nesting sites considered by local naturalists, Ministry of Natural Resources, local, or metropolitan parks department personnel, or biologists to be significant.

*Remnant Areas:* those areas containing habitats that have now largely disappeared. They may include marshes, open prairie, hardwood forest, dunes, and so on.

*Historic Sites:* areas of local or regional historic significance where historic artifacts are present or where historic events are known to have occurred.

These should be designated as open space areas and their use limited to natural area parks.

The Toronto Field Naturalists' Club suggests the inclusion of the preceding categories in policy statements to indicate the recognition of the value of such natural and historic attributes. The Club wants to aid in the identification and evaluation of specific areas at the appropriate stage of the planning process. Policy statements should also establish that the areas will be used for public recreation and remain in their natural state.

#### Establishment of Protected Sites

**2. The Toronto Field Naturalists' Club recommends that the Metropolitan Corporation and all municipalities within and adjacent to Metropolitan Toronto designate certain areas as protected sites to be kept in as natural a state as possible. Areas to be considered for this designation should include:**

- 1) Lambton Woods on the Humber River
- 2) the Humber Marshes
- 3) the Toronto Island Wildlife Sanctuary
- 4) the valley of the East Don River from Sheppard Avenue East to Finch Avenue East including the Newtonbrook Ravine from Forest Grove Drive to the Don River
- 5) the valley of the West Don River from Steeles Avenue West to the beginning of the G. Ross Lord Reservoir
- 6) the Scarborough Bluffs and the lands above the bluffs
- 7) the valley of the Rouge River from Finch Avenue East (at the northern limit of the Metro Zoo) north to the CPR railway bridge including all the valley land up to the farmland and golf course on the brow of the valley
- 8) Corner Marsh at the mouth of Duffin Creek

#### Conservation in Pickering Township

**3. The Toronto Field Naturalists' Club recommends that official plans for the Regional Municipality of Durham designate as much land as possible between Highway 401 and the north shore of Lake Ontario for agricultural and open space uses. Plans should also designate existing woodlands and scenic features north of Highway 401 as open space.**

The only undeveloped land with access to an undeveloped lakeshore in the Toronto region is located in the township of Pickering. It is important that urbanization in this area be strictly regulated through appropriate planning to ensure minimal damage to this still natural region.

#### Planning for the Rouge River Watershed

**4. The Toronto Field Naturalists' Club recommends that the Provincial Government initiate and coordinate a planning program for the Rouge River watershed involving all appropriate municipalities and authorities.**

The Rouge River is the least developed watershed in the Metropolitan Toronto area and is subject to develop-

ment pressures from the many municipalities located along its banks. The Province, through the Ministry of the Environment, should establish a joint planning program to regulate land uses, water management practices, and the designation of land along the Rouge River for permanent open space use.

#### Environmental Assessment Legislation

**5. The Toronto Field Naturalists' Club recommends that the Metropolitan Corporation and all municipalities within and adjacent to the Metropolitan Toronto enact environmental assessment by-laws that require an environmental assessment for any proposed changes to zoning, official plan densities, or land use designations.**

Since 1975 the Province of Ontario has had an Environmental Assessment Act that applies to provincial government projects and will eventually apply to municipal government projects and then to major projects undertaken by the private sector. Because not all projects that might have significant effects on the environment are covered by the Act, municipalities should enact by-laws to cover both private and public sector projects that would otherwise proceed without restrictions. To accommodate development proposals, changes in zoning, official plan designations, and land use are often proposed. These could have adverse effects on the environment. The proponent of any project should be required to provide a thorough study of the project's effects on the environment before any decision on the change is made.

#### Protection of Ravines

**6. The Toronto Field Naturalists' Club recommends that the Metropolitan Corporation and all municipalities within and adjacent to Metropolitan Toronto enact by-laws to protect ravine lands by regulating destruction of trees and other vegetation, excavation, filling, and contour alteration.**

In 1971 the City of Toronto passed Section 2 of the city of Toronto Act. Section 2 states:

"Subject to the Weed control Act, the Council of the Corporation may pass by-laws regulating the destruction of trees or other natural vegetation, or any class or classes thereof, on any land within any defined area or areas of the municipality where such land is hereafter designated as ravines by the Official Plan as amended from time to time and prohibiting the destruction of such trees or other natural vegetation and the excavating or other altering of contours of any such land without the consent of the Corporation."

This section is especially important because it applies to privately as well as publicly-owned land. Although the City has designated ravines to which this provision should apply, it has not, as of March 1976, passed the implementing by-laws. These are urgently needed! To our knowledge, the other municipalities within Metropolitan Toronto have done nothing like this to protect ravine lands. It is imperative that they initiate the process of obtaining the legislative authority to designate ravine lands and to pass by-laws regulating activities in these areas.

#### Management Guidelines

**7. The Toronto Field Naturalists' Club recommends that the Metropolitan Corporation and all municipalities within Metropolitan Toronto consider the following guidelines for managing natural areas.**

- a. Except where an area such as a playing field is specifically required to have mown grass, natural vegetation should be left to grow.
- b. Dead trees (unless hazardous) and underbrush should be left for the animals and to return to the soil naturally.
- c. Native shrubs should be planted on slopes to prevent erosion, to control access by people, and to provide food and cover for animals.
- d. Streams should be left in as natural a state as possible; that is, natural vegetation should be allowed to grow along streams and channelling should be avoided.
- e. Motorized vehicles such as trailbikes and snowmobiles should be prohibited from any natural area and, if necessary, hedges or fences used to prevent entrance of these vehicles.
- f. Paths through natural areas should be designed to avoid steep slopes, marshy areas, and stands of rare plants.

**g. The use of signs to direct the public's behaviour in natural areas should be continued.**

#### Public Participation

**8. The Toronto Field Naturalists' Club recommends that the Metropolitan Corporation and all municipalities within and adjacent to Metropolitan Toronto require that all proposals for rezoning or new development be published in the press and comments from the public invited before such proposals are submitted to local councils or planning boards.**

The public is often not aware of new developments because plans are not sufficiently publicized. The results of any environmental assessment should be available on request, and the planning authority required to consider public comments before any decision is made.

*The above procedure should also be carried out by the Metropolitan Toronto and Region Conservation Authority before initiating works that would change the character of river valleys or ravines.*

#### Conclusion

Public education is the key to the long-range solution of environmental problems at the present and in the future. It is the hope of the Toronto Field Naturalists' Club that this report will have increased the readers' appreciation of the environmental issues and the values of the natural areas in the Metropolitan Toronto area.

If we as urban dwellers think the natural world is important, then we must take active measures to ensure that it is not destroyed as urban growth continues.

If we do nothing, our natural heritage will be lost forever. We must act before it is too late. If not now, when? If not us, who?

## Bibliography

### Publications of Toronto Field Naturalists' Club

- Checklist of Plants in Four Toronto Parks: Wilket Creek, High Park, Humber Valley, Lambton Woods.* Revised and Enlarged 1972.
- Gingrich, John A. *Bird Migration Chart.* April 1968.
- Iden, Peter. *Toronto Birdfinding Guide.* 1967.
- Saunders R.M. *Toronto Field Naturalists' Club: Its History and Constitution.* 1965.
- The Ontario Field Biologist.* Presents reports of observations and research by amateur and professional naturalists. Published each December from 1954 to 1973 and each June and December since 1974. Each year a report is included on the "Toronto Christmas Bird Count" based on statistics by areas of Metropolitan Toronto from records kept by the Toronto Ornithological Club and on "Spring Warbler Migration" based on statistics kept by various members of the Toronto Ornithological Club in a number of different areas in Metropolitan Toronto.
- Toronto Field Naturalists' Club Newsletter.* Published every month from September to May.
- Toronto Field Naturalists' Club Ravine Surveys Completed: *Chatsworth Ravine* (1973), *Wigmore Ravine* (1976), *Brookbanks Ravine* (1975), *Chapman Valley Ravine* (1976).
- Ravine Survey in Progress: *Park Drive Ravine.*
- Preliminary Reports: *Toryork Greenbelt/St. Lucie Park, Newtonbrook Ravine.*

### Field Guides

- Borror, Donald J. and White, Richard E. *A Field Guide to the Insects.* Boston, Houghton Mifflin Company, 1970.
- Brockman, D. Frank. *Trees of North America.* New York, Golden Press, 1968.
- Hosie, R.C. *Native Trees of Canada.* Ottawa, Queen's Printer for Canada, 1969.
- Lutz, Frank E. *Field Book of Insects.* New York, G.P. Putnam's Sons, 1918 (revised 1948).
- Peterson, Roger Tory. *A Field Guide to the Birds.* Boston, Houghton Mifflin Company, 1947.
- Peterson, Roger Tory, and McKenny, Margaret. *A Field Guide to Wildflowers.* Boston, Houghton Mifflin Company, 1968.
- Petrides, George A. *A Field guide to Trees and Shrubs (Second Edition).* Boston, Houghton Mifflin Company, 1972.
- Reid, George K. *Pond Life.* New York, Golden Press, 1967.
- Rhodes, Frank H.T. *Fossils: A Guide to Prehistoric Life.* New York, Golden Press, 1962.
- Robbins, Chandler S. and others. *Birds of North America.* New York, Golden Press, 1966.
- Shuttleworth, Floyd S. and Zimm, Herbert S. *Non-Flowering Plants.* New York, Golden Press, 1967.

### References and Recommended Reading

- A History of the Toronto Islands.* Toronto Island School, 1972.
- Allen, Robert Thomas. *The Great Lakes.* Toronto, Natural Science of Canada Limited, 1970.
- Arthur, Eric. *Toronto, No Mean City.* Toronto, University of Toronto Press, 1964.
- Bailey, Brian D. *A History of the Toronto Waterfront from Etobicoke to Pickering.* Metropolitan Toronto and Region Conservation Authority Waterfront Division, 1973.
- Baine, R.P. and McMurray, A.L. *Toronto: an urban study.* Toronto, Clarke, Irwin and Company Limited, 1970.
- Barnett, J.M. "Ashbridge's Bay." *Ontario Naturalist*, December 1971.
- Barry, James, P. *The Fate of the Lakes: a portrait of the Great Lakes.* Toronto, G.R. Welch, 1972.
- Bonis, Robert R. *A History of Scarborough.* Scarborough, Scarborough Public Library, 1968.
- Burbidge, Scott. *Outdoor Education Sites within the Metropolitan Toronto Region.* Metropolitan Toronto School Board, Research Department, 1970.
- Burch, Susan and Popov, Victor. *An Ecological Field Guide to Wilket Creek Park.* Metropolitan Toronto Parks Department.
- Catling, Paul. "Notes on the Natural History of the Toronto Region." *Toronto Field Naturalists' Club Newsletter.* Special enlarged issue April 1969.
- Catling, Paul. "Spring Migration of Saw-whet Owls at Toronto, Ontario." *Bird Banding*, Vol. 42 (1971).

- Catling, Paul and McKay, Sheila. "Association of Plants along a Railway Track at West Hill (Scarborough), Ontario." *The Ontario Field Biologist*, Vol. 28, No. 1 (June 1974).
- Catling, Paul M. and McKay, Sheila M. "On the Flora of the Toronto Islands." *The Ontario Field Biologist*, Vol. 28, No. 2 (December 1974).
- Catling, Paul and McKay, Sheila. "Associations of Halophytic Plants in the Toronto Region." *The Ontario Field Biologist*, Vol. 29, No. 1 (June 1975).
- Centennial Watercourse at Highland Creek*. Borough of Scarborough Works Department Report.
- Chapman, L.J. and Putnam, D.F. *The Physiography of Southern Ontario. Second Edition*. Toronto, University of Toronto Press, 1966.
- Coleman, A.P. "The Pleistocene of the Toronto region." Ann. Rept. Ont. Dept. of Mines, Volume 41, Part 7 (1932).
- Coleman, A.P. *The Last Million Years*. Toronto, University of Toronto Press, 1941.
- Council on Environmental Quality. Environmental Quality. Third Annual Report, Aug. 1972, Washington D.C.
- Dagg, Anne Innis. *Canadian Wildlife and Man*. Toronto, McClelland and Stewart Ltd., 1974.
- Dagg, A.I. and Campbell, C.A. "Studies in Urban Nature." *The Bulletin of the Conservation Council of Ontario*, Vol. 22, No. 1, Jan. 1975, pp. 10-14.
- Don Valley Conservation Report*. Department of Planning and Development, Ontario, 1950.
- Etobicoke Valley Report*. Ont. Dept. of Planning and Development, 1947.
- Euler, David. *Shrubs for Wildlife*. Ministry of Natural Resources, Wildlife Branch, Ontario.
- Faull, J.H. editor. *The Natural History of the Toronto Region*. Toronto, The Canadian Institute, 1913.
- Federation of Ontario Naturalists. A Brief Concerning the Designation of Ravine Lands in the City of Toronto Plan. April 10, 1973.
- Federer, C.A. "Effects of Trees in Modifying Urban Microclimate." *Trees and Forests in an Urbanizing Environment*. Amherst, Mass., Cooperative Extension Service, (1971).
- Filey, Michael. *A Toronto Album: Glimpses of the City that was*. Toronto, University of Toronto Press, 1970.
- Foxes and Watercress*. The Ravine Developers, Toronto, 1972.
- Francis, George R. and Eagles, Paul F.J., editors. *A Study of the Environmentally Sensitive Areas for the Environmental Policy of the Regional Municipality of Waterloo*. unpublished manuscript.
- Geis, A.D. "Effects of Urbanization and type of Urban Development on Bird Populations." *Wildlife in an Urbanizing Environment*. Amherst, Mass., Cooperative Extension Service, (1974).
- General Biological Survey of Three Ravines within the City of Toronto: Vale of Avoca, Moore Park, and Glen Stewart*. Ecological Census Operation 3, Summer Project, sponsored by General Foods Limited in 1973, supervisor Allan Wainio, Ministry of Natural Resources, Maple, Ont.
- Gilbertson, Michael. "A Great Lakes Tragedy." *Nature Canada*. Jan./March 1975.
- Hilts, Stewart. "Urban Biology: The Ravines of Toronto." *Toronto Field Naturalists' Club Newsletter* No. 288: 10-13 (Jan. 1975).
- Hodgins, James L. "The Tree of Heaven." *Ontario Naturalist*, August 1975.
- Hough, Michael. *The Urban Landscape: a study of open space in urban metropolitan areas*. Toronto, Conservation Council of Ontario, July 1971.
- Howard, Walter E. "Why Wildlife in an Urban Society?" *Wildlife in an Urbanizing Environment*. Amherst, Mass., Cooperative Extension Service, (1974).
- Humber Valley Report*. Ontario Dept. of Planning and Development, 1948.
- Hunt, Patricia W. *Pioneering in North York: a history of the borough*. Toronto, General Publishing Co. Ltd., 1968.
- Innis, Mary Quayle, editor. *Mrs. Simcoe's Diary*. Toronto, Macmillan of Canada, 1965.
- Jameson, Anna. *Winter Studies and Summer Rambles (1838)*. Toronto, McClelland and Stewart, 1972.
- Judd, W.W. and Speirs, J.M., editors. *A Naturalist's Guide to Ontario*. Toronto, University of Toronto Press, 1964.
- Karrow, P.F. "Pleistocene geology of the Scarborough area." Ont. Dept. of Mines, Geological Report 46 (1967).
- Kaiser, J. and Copeland, T. *Botanical Description of the Valleys of the Rouge*. Metropolitan Toronto Parks Department 1974. (unpublished report)
- Leonard, Raymond E. "Effects of Trees and Forests in Noise Abatement." *Trees and Forests in an Urbanizing Environment*. Amherst, Mass., Cooperative Extension Service, (1971).
- Leopold, Aldo. *A Sand County Almanac with essays on conservation from Round River*. Oxford University Press, 1966.
- McHarg, Ian. *Design with Nature*. Garden City, N.Y., Natural History Press, 1969.
- McKeating, Gerald B. editor. *Nature and Urban Man*. Ottawa, The Canadian Nature Federation, 1975.
- McKeating, Gerald B. and Creighton, William A. *Backyard Habitat*. Ministry of Natural Resources, Ontario.

- Metropolitan Toronto and Region Conservation Authority. *Study of Mimico Creek Watershed*. Toronto, H.G. Acres and Co. Ltd., March 1963.
- Metropolitan Toronto Planning Board, Population Summary, 1975.
- Rich, Saul. "Effects of Trees and Forests in Reducing Air Pollution." *Trees and Forests in an Urbanizing Environment*. Amherst, Mass., Cooperative Extension Service, (1971).
- Richardson, A.H. *Conservation by the People*. Toronto, University of Toronto Press, 1974.
- Richardson, David. *The Vanishing Lichens: Their History, Biology and Importance*. Vancouver, David and Charles, 1975.
- Rouge-Duffering-Highland-Petticoat Advisory Board Conservation Report*. Scarborough, Department of Planning, 1956.
- Saunders, R.M. *Flashing Wings*. Toronto, McClelland and Stewart, 1947.
- Sauriol, Charles. *The Cardinal*, Volumes 1-21. Toronto: C. Sauriol for the Don Valley Conservation Association, March 1951-March 1956.
- Scadding, Henry. *Toronto of Old*. Toronto, Oxford University Press, 1966. (originally published in 1873).
- Smith, Lorraine, C. "Urban Wildlife — is it wanted and needed?" *The Canadian Field Naturalist*. Vol. 89, No. 4, Oct.-Dec. 1975, pp. 351-353.
- Spelt, Jacob. *Toronto*. Toronto, Collier MacMillan Ltd., 1973.
- The Central Waterfront Programme for Planning*. Central Waterfront Planning Committee, 1974.
- The Metropolitan Toronto and Region Waterfront Plan 1972-1982*. Metropolitan Toronto and Region Conservation Authority, 1974.
- Toronto's Island Park Neighbourhoods*. City of Toronto Planning Board, 1973.
- Urquart, F.A. *The Monarch Butterfly*. Toronto, University of Toronto, 1960.
- Wainio, Allan and others. "A Fish Survey of the Toronto Islands." Ontario Ministry of Natural Resources, 1973.
- Wainio, Allan and Riley, John. *A General Biological Survey of the Lower Rouge River Marsh and River Valley*. Ecological Census Operation No. 3, Maple, Ministry of Natural Resources, 1973.

## Park Information

To make your visits to Toronto's parks and natural areas more enjoyable we are including the following advice and information:

Take away nothing but garbage.

Walk on trails or mown grass. If this is not possible be careful where you step — not on a rare wildflower or a bird's nest.

Keep off steep slopes.

Report any signs of deterioration or abuse to the proper authorities.

Use your senses: listen, look, smell, feel.

Metropolitan Toronto Parks Dept.  
General Inquiry 367-8186

City of Toronto  
City Parks Inquiry 367-7251

Etobicoke  
Parks and Recreation Services  
General Information  
Mon-Fri 8:30-4:30  
626-4161

East York  
Recreation 461-9451

Todmorden Mills 425-2250

North York  
Parks and Recreation  
General Information  
Mon-Fri 8:30-4:30  
225-4611

Pioneer Village 633-9901

Scarborough  
Recreation and Parks  
Parks Inquiry 438-7406

York  
Parks and Recreation  
General Information 653-2700

Metropolitan Toronto and Region Conservation Authority 661-6600

Ontario Government — POLLUTION COMPLAINTS 424-3000

TRAVEL INFORMATION:  
TTC 484-4544

GO Transit 248-3112

Island Ferry Service 367-8193

The following is a partial list of the parks in and adjacent to Metropolitan Toronto. Although the list is incomplete, it gives some idea of the facilities and unique features that exist.

The name of each park is followed by a letter (or letters) that refers to the borough in which the park is located. Where the name is also followed by a name in brackets, the park is managed by that authority rather than by the parks department of the borough in which it is located.

C: City, E: Etobicoke, EY: East York, NY: North York, Sc: Scarborough, Y: York, Metro: Metropolitan Toronto Parks Department, CVCA: Credit Valley Conservation Authority, MTRCA: Metropolitan Toronto and Region Conservation Authority.

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ETOBICOKE CREEK WATERSHED PARKS

Marie Curtis E (Metro)	parking, boating, swimming picnicking, playground, mouth of Etobicoke Creek.
Centennial E	parking, skiing, greenhouses

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MIMICO CREEK WATERSHED PARKS

Humber Bay E (Metro)	parking, boating, picnicking, mouth of Mimico Creek
West Deane	bicycling, walking

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HUMBER RIVER WATERSHED PARKS

Humber Marshes C (Metro)	hiking, bird watching
King's Mill E (Metro)	hiking
Etienne Brûlé Y (Metro)	hiking
Magwood Y (Metro)	
Home Smith E (Metro)	hiking
Lambton Woods E (Metro)	nature trail
James Gardens E (Metro)	gardens
Scarlett Mills E (Metro)	wildflower preserve
Humber Valley Golf Course E (Metro)	golfing
Claireville E (MTRCA)	parking, swimming, boating, fishing, camping, nature trails
Rowntree Mills NY (Metro)	parking, picnicking, nature trails
Downsview Dells NY (Metro)	parking, picnicking, hiking
Black Creek NY (MTRCA) (Pioneer Village)	parking, picnicking, hiking, historic site

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DON RIVER WATERSHED PARKS

Todmorden Mills EY (Metro)	parking, historic site
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Rosedale Ravine C	nature trail
Park Drive C	nature trail
David R. Balfour C	picnicking, nature trail
Vale of Avoca C	nature trail
Moore Park Ravine EY (Metro)	nature trail, view of quarry
Taylor Creek EY (Metro)	nature trail, "vita parcours", bicycle trail
Dentonia Park Golf Club Sc (Metro)	golfing
Warden Woods Sc (Metro)	nature trail
E.T. Seton NY (Metro)	parking, picnicking, hiking, Science Centre
Serena Gundy NY (Metro)	parking, picnicking, hiking
Sunnybrook NY (Metro)	parking, picnicking, "vita parcours", horseback riding, nature trails
Don Valley Golf Club NY (Metro)	golfing
Earl Bales NY (Metro)	formerly York Downs golf Club
G. Ross Lord NY (Metro)	hiking
Wilket Creek NY (Metro)	nature trails
Edwards Gardens NY (Metro)	parking, walking, gardens
Burke Brook NY	nature trails
Sherwood NY	playground, nature trails
Alexander Muir Gardens C	gardens
Chatsworth Ravine C	
Wigmore NY	walking
Moccasin Trail NY	parking, walking
Brookbanks NY	walking
HIGHLAND CREEK WATERSHED PARKS	
Col. Danforth Sc (Metro)	parking, picnicking, walking
Morningside Sc (Metro)	bicycling, walking
Bendale Sc	

Thomson Memorial Sc	bicycling, walking
Cedar Brook Sc	
Crooked Creek Sc (Metro)	walking
<b>ROUGE RIVER WATERSHED PARKS</b>	
Rouge River (MTRCA)	swimming, boating, fishing, mouth of Rouge River
Metro Zoo Sc (MZS)	zoo
<b>LAKESHORE PARKS</b>	
Ratray Marsh (CVCA)	
Marie Curtis E (Metro)	parking, boating, playground, swimming, picnicking
Humber Bay E (Metro)	parking, boating, picnicking
Sir Casimir Gzowski C	parking, playground
Budapest C	parking
Lakeshore Blvd. C	parking
Exhibition C (Metro)	parking, walking, gardens
Central Waterfront C	walking
Toronto Island C (Metro)	walking, bicycling, fishing, swimming, picnicking, farm, nature sanctuary
Clarke Beach (Cherry Beach) C	swimming, parking, picnicking
Leslie St. Spit C	walking, bicycling, bus (in summer)
Ashbridge's Bay C (Metro)	parking, boating
Beaches C	boardwalk, swimming (Pool)
Rosetta McClain Memorial Gardens Sc (C)	gardens, view of lake
Bluffers Sc (Metro)	parking, boating, picnicking, access to foot of bluffs (road)
Cathedral Bluffs Sc (Metro)	view of bluffs and lake
Cudia Sc (Metro)	parking, access to foot of bluffs (stairs)
Sylvan Sc (Metro)	view of lake from bluffs, walking
South Marine Drive Sc	view of lake, walking
Grey Abbey Sc	view of lake

Rouge River (MTRCA)	swimming, boating, fishing
Petticoat Creek (MTRCA)	parking, swimming (Pool), nature trails
Sandy Beach (MTRCA and Hydro)	parking, picnicking
OTHER PARKS	
High Park C	parking, picnicking, nature trails, historic site
Trinity-Bellwoods C	arboretum, remnant of Garrison Creek
Mt. Pleasant Cemetery C (Private)	arboretum
Allan Gardens C	greenhouse
Glen Stewart C	walking

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