# THE RECREATIONAL ROLE OF CONSERVATION AREAS IN THE METROPOLITAN TORONTO REGION

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ABSTRACT

THE RECREATION ROLE OF CONSERVATION AREAS
IN THE METROPOLITAN TORONTO REGION

by William Alexander McLean

The present plans of the Metropolitan Toronto and Region Conservation Authority, call for the acquisition by 1980, of over 30,000 acres of land. While the major portion of this acreage will have been acquired in connection with flood control schemes, it is proposed to use much of the land for recreation purposes. In order that the recreational development of these lands may be orderly and purposeful, it is deemed desireable to develop guidelines, by which a rational recreational role for the authority lands may be determined.

On the premise that the role of recreation areas administered by a public agency is dependent upon the permissive legislation, the magnitude and nature of the demand for recreation, the physical capability of the lands available, the services provided by other park agencies in the same area, and the tax base, criteria for determining the recreation role of authority lands have been developed. Each of these factors as they pertain to the area under the jurisdiction of the Metropolitan Toronto and Region Conservation Authority was investigated, employing three methods,

described as follows.

1) Primary sources of information were reviewed, including the legislation enacted by the Government of Ontario, pertinent to recreation; population statistics as found in the census reports of the Dominion Bureau of Statistics; and policy statements recorded in the minutes of the authority.

2) Secondary sources included park and recreation periodicals; policy statements of selected park agencies; and Technical reports and papers presented at seminars and conferences.

3) Two studies were conducted for the purpose of the thesis. The first in 1959, was a conservation area users survey, together with a traffic survey. A sample of conservation area users were asked a series of questions, while traffic to the areas was counted and recorded. These data were analyzed in order to obtain information concerning the demand and type of use in conservation areas. A second study involved mailed questionnaires to various park and recreation agencies in the Metropolitan Toronto region, in order to determine the nature of their programs and facilities.

The Ontario Conservation Authorities Act permits the acquisition of lands for conservation schemes, and the use of

these lands for recreation purposes. The spirit of the act indicates however, that recreation should be secondary to the conservation uses of the land. Conservation areas are defined as authority owned lands on which recreation is permitted.

Conservation areas are physically capable of accommodating recreation uses which derive as much value from the setting in which they occur, as they do from performing the activity itself. There is a great demand in the Metropolitan Toronto region for recreational opportunities of this kind, sparked by an increasing urban population, increased available time and income, and increased mobility of people.

The municipal park and recreation agencies in the region are user oriented, and the Department of Lands and Forests has a policy of not locating Provincial Parks within two or three hours driving time of Metropolitan Toronto, thus leaving a gap both geographical and in service, which conservation areas can fill. The greatest value of conservation areas lies in the aesthetic experiences which they provide. In order to preserve their quality, the relationship between land capability and carrying capacity must be recognized. The type and intensity of recreation use for which they are developed, can be based on the physical characteristics of the land.

The correlation of data concerning demand, programs of other agencies, capability, and financing enables the

development of guidelines for the determination of policy concerning the development and operation of conservation areas. Policies so determined are not static, and must evolve as a greater understanding of the factors affecting the recreational role of conservation areas, is achieved.

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By

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All errors or omissions which may occur in the thesis, remain the responsibility of the author.

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# CHAPTER I

## INTRODUCTION

Under the terms of the Ontario Conservation Authorities Act, the Metropolitan Toronto and Region Conservation Authority is permitted to undertake schemes whereby the natural resources of its watersheds may be conserved, restored, and developed; and it is permitted to acquire lands in connection with such schemes, and to develop these lands for recreation purposes. Lands so acquired by the Authority, and developed for public recreation use, are designated 'conservation areas.'

An interpretation of the authority's permissive legislation suggests that a scheme should in the first instance have some objective other than recreation, and in the second instance if land is required for the scheme, and the land is suitable for recreation use, it may be so used. It follows, then, that any recreational use of authority land should not interfere with the primary objective of the scheme. That this interpretation was the intent of the legislation is collaborated by the way in which the authority is organized, and the basis on which government approval is given.

The objectives of a conservation authority are not spelled out in the Conservation Authorities Act primarily

because conservation problems vary from authority to authority.[1] The Act simply states, "The objects of an authority are to undertake and effect . . . schemes . . . as the Authority determines."[2] This would appear to be an open mandate, but in practice is tempered by the spirit of the act and the powers given to authorities. Having established its objectives the authority is admonished,

> to use lands that are owned or controlled by the authority for such purposes, not inconsistent with its objects, as it deems proper.[3]

The objectives of the Metropolitan Toronto and Region Conservation Authority are to promote and effect the conservation, restoration and development of the natural resources; soil, water, forests, and wildlife, within the area of its jurisdiction. These objectives are inherent in its organization. In order to carry out its work to best advantage, the authority has appointed five functional advisory boards; Flood Control and Water Conservation; Reforestation and Land Use; Information and Education; Conservation Areas; and Historic Sites. A Wildlife sub-committee operates in conjunction with the Conservation Areas advisory board. The first two of these boards advise the Authority on matters pertaining

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[1] In February, 1961, there were 30 Conservation Authorities in the Province of Ontario.

[2] Revised Statutes of Ontario, Chapter 62, section 15, 1960.

[3] Ibid., section 17 (h).

to its objectives. The Information and Education board advises on the promotion of conservation activities, and the Conservation Areas board advises on the administration of authority lands open to the public. Flood Control and water conservation comprises the major portion of the authorities endeavours.

> When the Metropolitan Toronto and Region Conservation Authority was formed in 1957, it was fully appreciated that the furtherance of a Flood Control Plan would be one of its primary objectives.[1]

The approval of the Ontario government is prerequisite to effecting a scheme. Approval of a scheme in which land acquisition is involved, and which proposes public recreation as a use, includes a consideration of the suitability of the land for the conservation purposes proposed, and its suitability for the recreational uses proposed.[2] Since 1957, the authority has submitted and received approval for twenty-nine schemes in this category. The following tabulation indicates the types of land that were involved in these schemes and the 'conservation purpose' for which the lands were acquired.

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[1]G. Ross Lord, Metropolitan Toronto and Region Conservation Authority, Report of the Chairman to the Annual Meeting, February 9, 1962, p. 5.

[2]Ontario Dept. of Planning and Development, Directive to Field Officers, June, 1959. This concerns submission of schemes for approval.

TABLE 1.--Types of land involved in twenty-nine approved conservation area schemes, Metropolitan Toronto and Region Conservation Authority, 1957-1961

| Land Types | Conservation Purpose |
|---|---|
| Flood Plain | These lands are subject to periodic flooding. They are acquired to prevent unsuitable uses, primarily residential, industrial, and commercial. |
| Valley Slopes | Lands adjacent to, and rising from the flood plain. Depending on the cover, type of material and degree of slope, such lands pose serious erosion problems if unprotected. Acquisition is in order to afford proper protection. |
| Source Areas | Land at the headwaters of streams, (usually areas of springs) acquired for protection. |
| Wet Lands | Bogs, marshes and swamps other than source area, acquired to protect the plant, animal, and bird communities which they support. |
| Lakes | To protect and develop acquatic life, prevent pollution. |
| Reservoirs | Includes lands required for dam construction and ponding sites in connection with flood control. |
| Demonstration Land | Land that due to its physical characteristics is suitable for the demonstration of 'Conservation' practices. Marginal and sub-marginal land for agriculture which due to soil conditions or local relief, may be suitable for reforestation. Also, land suitable for agriculture, but requiring conservation measures, contour ploughing, grassed water ways, etc. |
| Complementary Land | Usually forms a buffer between land in previous categories and surrounding development. |

It will be readily observed that the forms of recreation which may be suitably applied to these types of land is

limited and will vary according to type, if the conservation objective is to be achieved.

## Purpose of This Study

The major work of the Metropolitan Toronto and Region Conservation Authority is associated with its Plan for Flood Control and Water Conservation. The plan, adopted by the Authority, September 2, 1959, called for the participation of the provincial and federal governments, together with the authority in works involving the creation of 16 multi-purpose reservoirs, the acquisition of 7,450 acres of flood plain land, and channel improvements at three key locations on the Humber River, at one location on the Don River, and two locations on the Black Creek.[1]

Prior to the adoption of the "Plan for Flood Control and Water Conservation" the Authority had, in anticipation of the plan, acquired 3,200 acres of land primarily for conservation purposes, and developed portions of this land for recreation use. With the adoption of the plan and subsequent government approval, the Authority is currently in the position of being a major recreation agency in terms of land ownership with potential for recreation use. Lands presently owned by the Authority, and lands proposed for acquisition under the ancillary measures plan total 30,600 acres. By

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[1]Metropolitan Toronto and Region Conservation Authority, Plan for Flood Control and Water Conservation, 1959, p. 6.

agreement with the Municipality of Metropolitan Toronto, lands owned by the Authority lying within the corporation limits will be developed and maintained by the Metropolitan Toronto Parks Department.[1] This will involve 7,900 acres of the 30,000 total acreage. The remaining 22,700 acres will be in the charge of the Authority for development and maintenance. (Figure I)

Because of the amount of land which the authority will have available for recreation use it is necessary for the authority to determine the role which it may properly perform in providing outdoor recreation opportunities in the Metropolitan Toronto Region, and to develop policies for the planning and development of recreation areas to fulfill the role as determined, while at the same time remaining true to its primary conservation obligations.

Under the premise that the role of the recreation areas administered by a public park agency is primarily dependent upon:

1) The permissive legislation
2) The magnitude and nature of the demand for outdoor recreation
3) The physical capability of the lands available
4) The services provided by other park agencies in the same area

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[1]Agreement signed between the Metropolitan Toronto and Region Conservation Authority and the Municipality of Metropolitan Toronto, June 23, 1958, item 2.

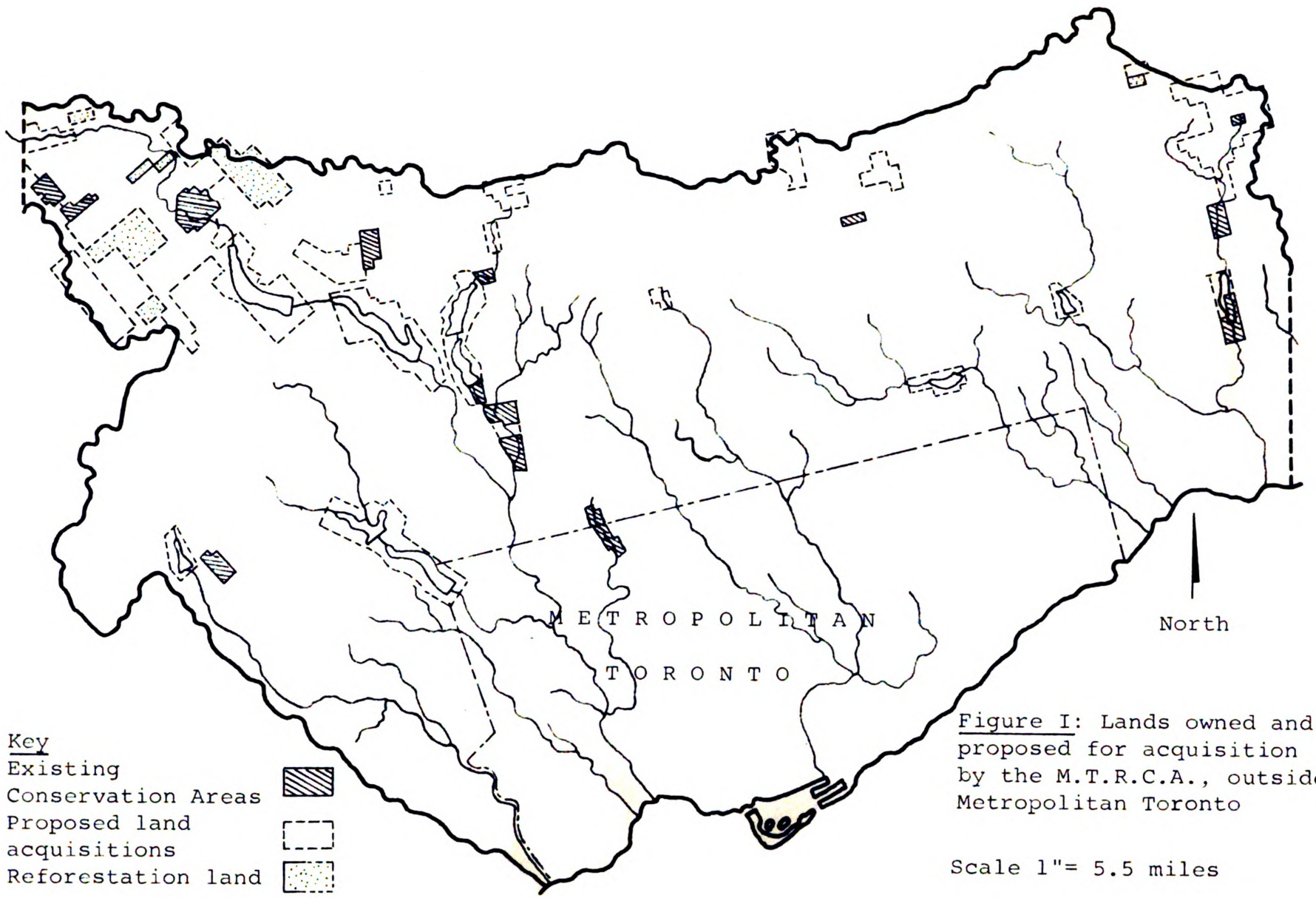


Figure I: Lands owned and proposed for acquisition by the M.T.R.C.A., outside Metropolitan Toronto

Scale 1"= 5.5 miles

5) The tax base.

This thesis will examine the nature of these factors in the Metropolitan Toronto region, in order to provide guidelines for the determination of a rational role for the Conservation Areas of the Metropolitan Toronto and Region Conservation Authority, and the formation of policies by which the planning and development of conservation areas may be governed.

The work of government agencies is given sense and direction through the making and keeping of policies. Policies well-made interpret the intent of the permissive legislation under which the agency operates, and are the guide posts by which the agency accomplishes its objectives. It is to this end that this thesis is directed.

## Methods

A variety of methods will be employed throughout this study in order to develop guidelines for the determination of a role for conservation areas and the formation of policies for conservation area planning and development, discussed in Chapter VIII.

### Review of Primary Sources

Of fundamental importance to the study is the legislation which has been enacted by the Government of Ontario pertinent to outdoor recreation and parks, and the municipal by-laws concerned with these same matters. A review of this material was a first step in understanding the will of the

people as expressed by their governments, and has provided the basis for the study.

The Dominion Bureau of Statistics census reports were the source of population statistics used in Chapter III.

Physical data in Chapter VI was obtained from County Soil Surveys prepared by the Ontario Department of Agriculture in co-operation with the Soils Department of the Ontario Agricultural College. This material was augmented by original studies carried out by the staff of the Metropolitan Toronto and Region Conservation Authority.

Statements of official policy were obtained from the adopted minutes of authority meetings, and meetings of its duly constituted advisory boards.

Review of Secondary Sources

Charles E. Doell[1], in lecturing a park administration class, asserted that "park management was an art, not a science," and as such cannot be studied with the same vigourous adherence to laws of behavior as a physical science might be studied. At the same time years of experience in park management have given rise to certain principles and standards which have gained wide acceptance throughout North America. Much of the material used in this study has been obtained from reviews of Park and Recreation periodicals, policy statements of selected park agencies, technical reports prepared

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[1]Director Emeritus, Minneapolis Department of Parks and Recreation and Special Lecturer, Michigan State University.

for administrators, public relation brochures prepared for public consumption, and technical papers presented at seminars and conferences. In addition, four planning studies were reviewed; the proposed official plan, prepared by the Metropolitan Toronto Planning Commission; New Gems for the Emerald Necklace, a report for the Cleveland Metropolitan Park District by the Regional Planning Commission; Regional Recreation Lands Plan, prepared by the Detroit Metropolitan Area Regional Planning Commission; and the California Public Outdoor Recreation Plan, prepared by a committee of the same name.

Studies

Two studies were conducted by the writer for the purposes of this thesis. The first study undertaken in the summer of 1959, consisted of three parts.

Part 1:--Two thousand two hundred and seventy-five questionnaires were distributed at random to visitors on selected dates throughout the summer. The dates were selected in order to enable the limited staff available for the survey to cover five different areas during the months of July and August, to get a representative sample including both week-ends and week days. Questionnaires were distributed only on days on which the weather was good. The Boyd Conservation Area was surveyed on 6 days, Albion 3 days, Heart Lake 5 days, Greenwood 2 days, and Glen Haffy 3 days.

Visitors were asked to complete the questionnaire

during the course of their visit, and turn it in upon leaving the area. One thousand six hundred and seventy-six questionnaires, or 72 percent of those distributed were returned. The questionnaire (a sample copy is to be found in appendix I) dealt with matters concerning the origin of visitors, the nature of the visits, and the pattern of conservation area use.

Part II:--On days selected for questionnaire distribution, a gate count was maintained during the hours of operation. The number of cars entering and leaving the area were recorded each half hour, and this data provided information as to the number of persons using each area at any one time during the survey period.

Part III:--From past experience it was known that most intensive use of the conservation areas occurred on summer weekends. Sunday, July 12, 1959, was a day on which questionnaires were to be distributed at the Boyd Conservation Area, and this day was selected for taking aerial photographs of the area at a period of high use. The intention in so doing, was to relate what the visitors stated was their purpose in visiting the area, to where they went in the area to accomplish their purpose. The expense involved in this type of investigation prohibited the repetition which would have been desirable, and thus precluded any solid conclusions being made from observations.

The information from this three-part study is dealt

with in Chapters III, VI, and VII.

The second study conducted in the winter of 1962, gathered information from municipal park and recreation departments in the Metropolitan Toronto Region, concerning their financing and scope of activities. Again the questionnaire method was used. Questionnaires were sent to 20 municipalities, and 14 were returned. A copy of the questionnaire is found in Appendix II.

# CHAPTER II

## THE METROPOLITAN TORONTO AND REGION CONSERVATION AUTHORITY

### History of the Authority

The Metropolitan Toronto and Region Conservation Authority is a corporate body, established in 1957, under the provisions of the Conservation Authorities Act (Ontario, 1946). By the terms of this act:

> where the councils of any two or more municipalities situate either wholly or partly within a watershed by resolution request the Minister to call a meeting for the establishment of a conservation authority for the watershed or any defined part thereof . . .[1]

and

> upon receipt by the Minister of a resolution passed at a meeting or adjourned meeting held under section 2 . . . by not less than two-thirds of the representatives present thereat, requesting the establishment of an authority, the Lieutenant Governor in Council may establish a conservation authority, and designate the municipalities that are the participating municipalities . . .[2]

further

> The Metropolitan Toronto and Region Conservation Authority has jurisdiction in all matters provided for in the Act over an area composed of all areas formerly under the jurisdictions of the Etobicoke-Mimico Conservation

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[1]Revised Statutes of Ontario, The Conservation Authorities Act, Chapter 62, section 2 (1).

[2]Ibid., section 3 (1).

> Authority, the Humber Valley Conservation Authority, and the Rouge, Duffin, Highland Peticoat Conservation Authority, together with . . . the area within the watershed of Carruthers Creek, and the area known as Toronto Island.[1]

These exerpts from the Act indicate the legislative origins of the authority. Two major events led to the formation of the metropolitan authority, the first of these being the creation of the municipality of Metropolitan Toronto, January 1, 1954. The successful federation of the 13 urban municipalities in York County paved the way for amalgamation of the four conservation authorities in the area. Pooling of resources for conservation work became an urgent matter when in October of 1954, the elements combined in a storm of hurricane force, causing severe flooding resulting in damages amounting to millions of dollars, and the loss of eighty-one lives.

> Hurricane Hazel was not the first tropical storm to pass over southern Ontario, but it was the worst in recorded history. Since 1878, there have been at least 32 hurricane spawned storms over Ontario. In addition . . . the Metropolitan Toronto Region has been plagued with damaging floods resulting from heavy thunderstorms and from combined rain, melting snow, and ice jams in the spring of the year. On the average, damaging floods have occurred in the Region once every one and one-third years.[2]

Following the catastrophe of "Hurricane Hazel," it was recognized that flood control and water conservation should be the

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[1] Ibid., section 4 (4).

[2] Metropolitan Toronto and Region Conservation Authority, Plan for Flood Control and Water Conservation, Woodbridge, Ontario, 1959, p. iii.

major objectives of the four established conservation authorities. The remedial measures required, however, were beyond the financial resources of any single authority, thus, amalgamation was sought as an effective solution. By an amendment to the Conservation Authorities Act in 1957, the deed was accomplished, and the Metropolitan Toronto and Region Conservation Authority was created.

The new authority had jurisdiction over nine complete watersheds, an area of nearly 1,000 square miles, involving 23 separate municipalities, including the municipality of Metropolitan Toronto. Within its area of jurisdiction a conservation authority has power:

> to study and investigate the watershed . . . and to determine a scheme whereby the natural resources of the watershed may be conserved, restored and developed and the waters controlled in order to prevent floods and pollution or any of such matters.[1]
>
> to purchase or acquire . . . any land that it may require.[2]
>
> to determine the proportion of the total benefit afforded to all the participating municipalities that is afforded to each of them.[3]

By definition in the act "scheme" means a project undertaken by an authority: "for the purposes of the conservation, restoration and development of natural resources, other than gas, oil, coal and minerals . . . ."[4]

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[1]Revised Statutes of Ontario, The Conservation Authorities Act, section 17 (a), Chapter 62, 1960.

[2]Ibid., section 17 (c).

[3]Ibid., section 17 (g).

[4]Ibid., section 1 (1).

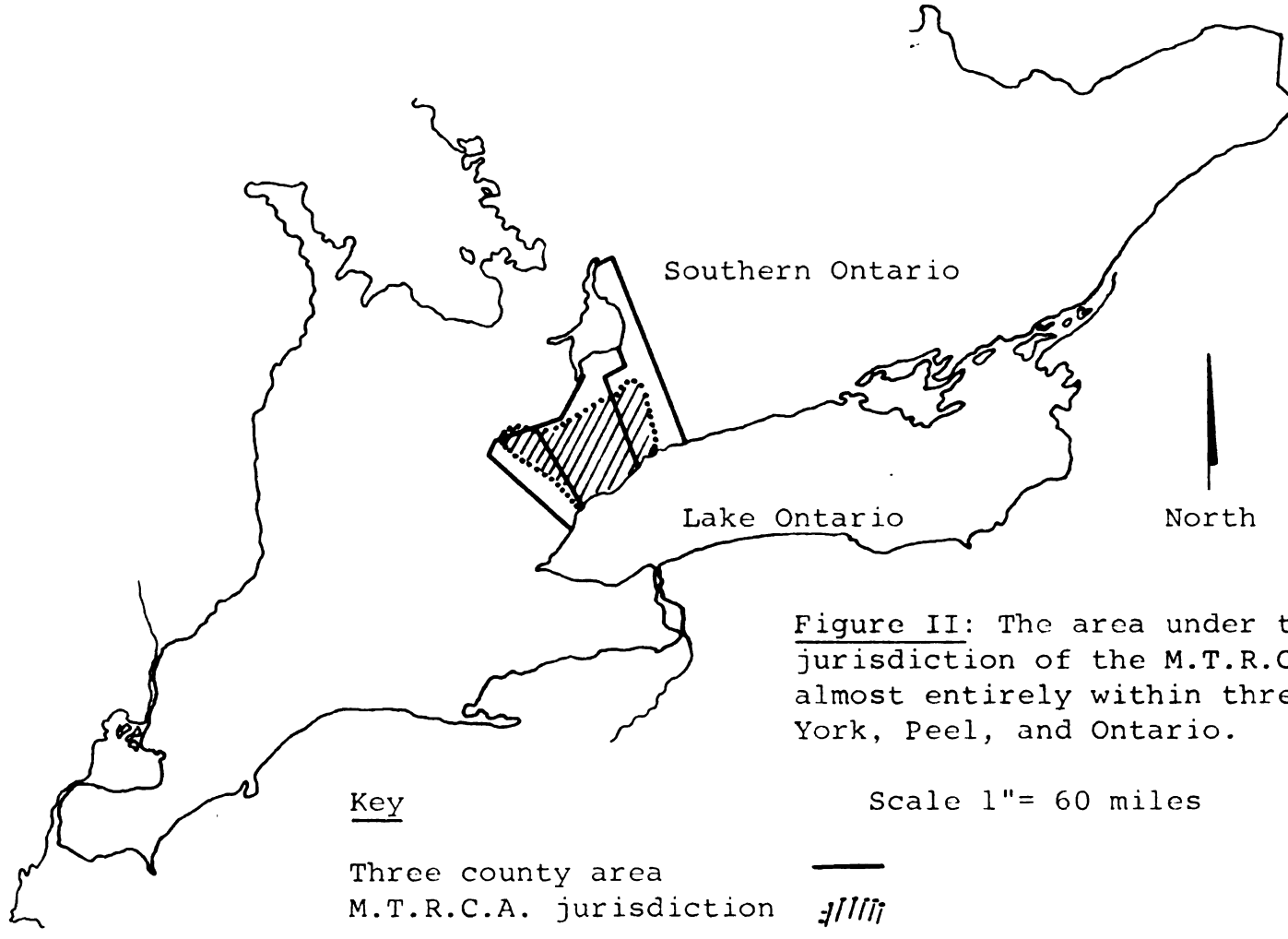


Figure II: The area under the jurisdiction of the M.T.R.C.A. lies almost entirely within three counties York, Peel, and Ontario.

Each of the 23 member municipalities of the authority is entitled to representatives at all authority meetings. Representatives to the authority are appointed annually by the municipality (ies) which they represent. Representation on the authority is according to the following population scale, with the exception of Metropolitan Toronto which is at all times entitled to a number of representatives equal to the number appointed by all other member municipalities combined.

TABLE 2.--Municipal representation on conservation authorities

| Population | Representatives |
|---|---|
| 250,000 or more | 5 |
| 100,000 - 249,999 | 4 |
| 50,000 - 99,999 | 3 |
| 10,000 - 49,999 | 2 |
| 9,000 or less | 1 |

Source: Conservation Authorities Act, section 3.

In general terms, authority members are entitled to vote on all matters of the authority, and act on behalf of their municipality (ies). The authority membership is responsible for the conduct of authority affairs, the determination of schemes, and the establishment of policy within the framework of the enabling act. A conservation authority

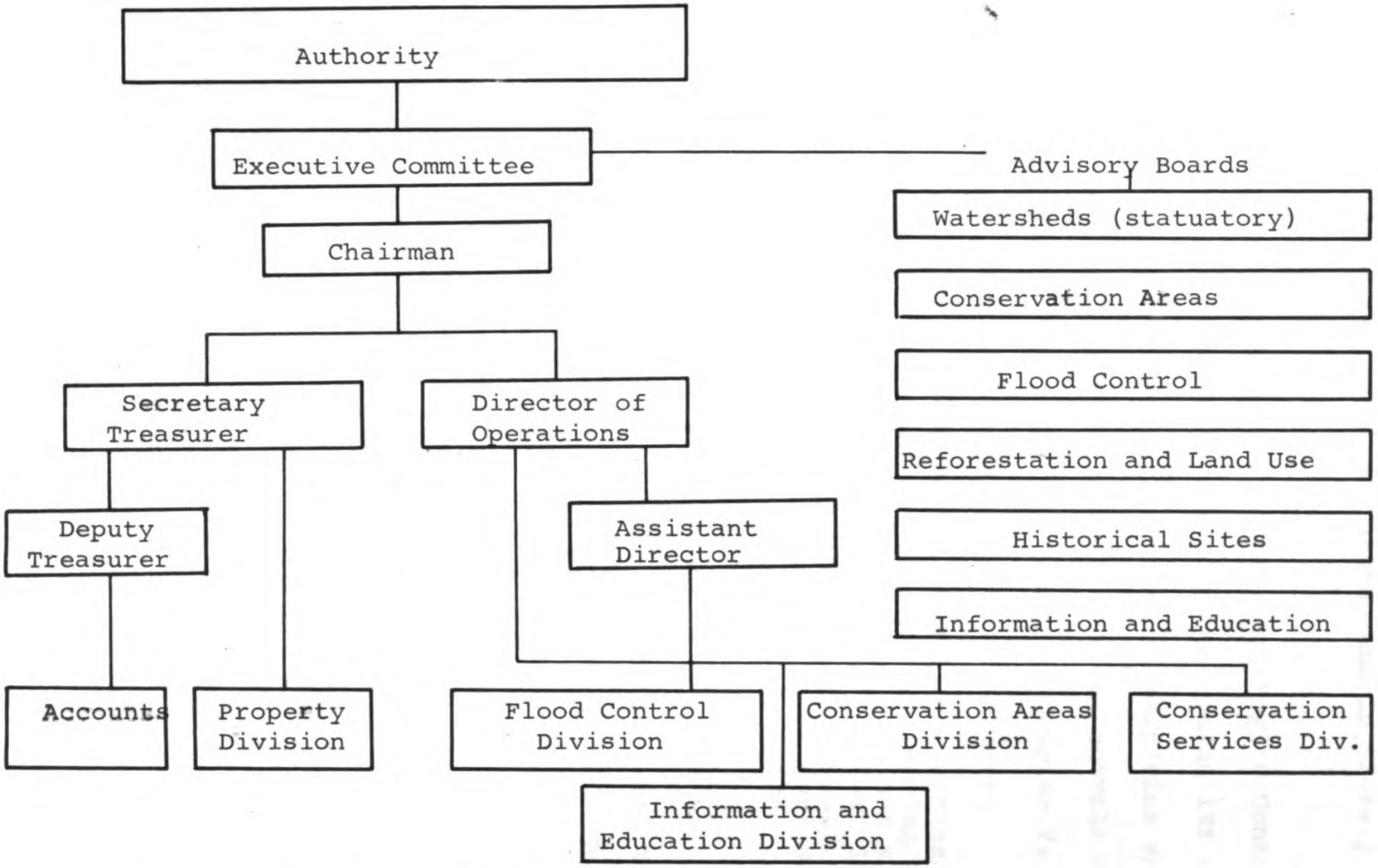


**Figure III**: Organization chart of the Metropolitan Toronto and Region Conservation Authority.

is a vehicle for joint municipal action and is closely related to municipal governments.

While the Metropolitan Toronto and Region Conservation Authority acts with a certain autonomy concerning its own affairs, the Ontario provincial government maintains specific controls over its activities. Largely these controls concern financing which will be fully dealt with in Chapter V. The primary control deals with the approval of schemes.

> Before proceeding with a scheme that is to be financed by funds raised and spent by the authority during the current year, the authority shall file plans and a description thereof with and obtain the approval in writing of the Minister, and where any portion of the cost of a scheme is to be raised in a subsequent year or years, shall also obtain the approval of the Ontario Municipal Board.[1]

The chairman of the authority is appointed by the Lieutenant Governor in Council, and three additional members of the authority may be appointed in the same way. In like manner, the enlargement of an authority, or the amalgamation of authorities must be authorized by an order-in-council.

## Development of Conservation Areas

The earliest conservation area in the Toronto region was acquired and developed by the former Humber Valley Conservation Authority, in 1954. It was in connection with this project that the term Conservation Area was first used.[2] A

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[1] Ibid., section 16.

[2] Conversation with K. G. Higgs, former Field Officer to the Humber Valley Conservation Authority.

description of the Dalziel Conservation Area, found in a brochure published by the Humber Valley Authority illustrates the combined conservation and recreation uses which was early associated with conservation areas.

> Demonstration plots illustrate reforestation, land and water conservation practices. There is a demonstration farm pond and good land use is illustrated. The historic barn, with its huge hand-hewn timbers, has been restored as a museum in which visitors may see tools, implements and household effects of pioneer Ontario life.
>
> Picnic tables, outdoor fireplaces, and toilet facilities are all provided. Ample parking is available.[1]

This area was rather primitive in terms of design and development, but its concept was the basis for major conservation area projects undertaken by the Metropolitan Authority after amalgamation in 1957.

As of the date of this writing the authority has established eleven Conservation Areas, involving 3,400 acres of land, and as was shown in Chapter 1, an additional 19,300 acres will become its responsibility as the Plan for Flood Control and Water Conservation and the Ancillary Measures Plan progresses. All of this additional land will fall into one or more 'type' categories described in Chapter I, and thus, is potential conservation area land. That this is the intention of the Authority is expressed in the adopted 'Plan of Ancillary Conservation Measures.'

> Recreation, as a part of the conservation program, is a dividend of flood control and water conservation measures. Under the flood control plan, much of the

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[1] Humber Valley Conservation Authority, Your Humber Heritage, 1956.

> land to be acquired, and many of the water bodies to be created can beneficially be developed for recreational opportunities.[1]

The policies of the authority relating to conservation areas deal primarily with the physical establishment of such areas, and in general terms the uses expected of them. Within the terms of the Conservation Authorities Act, authority policy is appropriate; the conservation areas have as their primary objective a use consistent with the objectives of the authority, and where appropriate recreation development is undertaken. While recreation is not a major objective of the authority, it is none-the-less on the threshold of becoming a major recreation agency.

> As an ancillary measure, recreation becomes an important complement of the Plan, and will have a lasting effect on the recreation patterns of the communities in the Metropolitan Toronto Region.[2]

The succeeding chapters will assess the potential role of the Authority's conservation area program, in a sphere greater than the confines of the Conservation Authorities Act, as described in this chapter.

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[1]Metropolitan Toronto and Region Conservation Authority, Plan for Ancillary Conservation Measures, section V (i), adopted by Authority Resolution No. 38, February 21, 1962.

[2]Ibid.

## CHAPTER III

## THE DEMAND FOR OUTDOOR RECREATION

A survey of current literature concerning leisure and outdoor recreation convinces the reader that there is today a great awareness of the demand for outdoor recreation. Very significant in this regard have been the writings of Marion Clawson.[1] Clawson looks at demand in two dimensions. The first is need for recreation as evidenced in population characteristics and social pressures. The second is demand for recreation space and facilities as a result of the need. He concludes that both dimensions are growing at unprecedented rates, and that there are no indications of the demand slackening.[2] While Clawson's remarks were directed at conditions in the United States, they have none-the-less application on the Canadian scene. Lloyd Brooks came to the same conclusions regarding the Canadian outdoor recreation demand.

> As we have seen, demand on a scale which almost belies immagination, seems inevitable. Every social and economic factor points that way . . . .
>
> . . . . . .

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[1]Director of Studies in Land Use and Management, Resources for the Future Inc.

[2]Marion Clawson, "The Crisis in Outdoor Recreation," American Forests, Vol. 65, No. 3, March, 1959.

> What we cannot dare forget is that there is no foreseeable limit to this demand . . . .[1]

Because of the complexity of the forces shaping the demand for outdoor recreation, estimates of the size and locale of the anticipated demand are vague. The purpose of this chapter is to deal with demand in the Metropolitan Toronto Region. The primary assumptions of this chapter will be that the same socio-economic forces shaping the demand on a national scale are at work in the Metropolitan Toronto Region. After a review of these forces, census data and planning studies will be employed, in an attempt to give some dimension to the demand in the study area.

Burch and Taves suggest that the changing functions of recreation in human society, and changing tastes in types of recreation, limit linear population projections as a useful measure of the demand for outdoor recreation.

> Thus, leisure attitudes have shifted from (1) celebration of labour completed, to (2) refreshment so that labour may continue more efficiently, to what seems to be (3) the development of property rights in set amounts of nonwork time.[2]

> . . . the earlier value of recreation for announcing one's position tends to lose its force - i.e., as the middle class goes camping, its former appeal to the elite becomes vulgarized . . . This is one reason why

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[1]Lloyd Brooks, "The Forces Shaping the Demand for Recreation Space in Canada," Resources for Tomorrow Conference Background Papers, Vol. II, Ottawa, July, 1961, p. 966.

[2]William Burch and Marvin J. Taves, Changing Functions of Leisure in Human Society, Paper given at seminar, Research Needs in Outdoor Recreation, Upper Great Lakes Area, University of Wisconsin, The Lake States Forest Experiment Station, Station paper no. 89, St. Paul, 1961, p. 12.

> linear projections may be mathematically sound, yet socially false.[1]

The National Advisory Council on Regional Recreation Planning, discovered something of these changing tastes and attitudes in their investigations, but asserted that constant throughout the variations, were six experiences sought in leisure. These experiences may be sought alone or in combination: physical exercise, emotional, aesthetic, educational, social, and intellectual. The report commented that emotional and aesthetic experiences are often confused. Emotional experiences are most easily identified by certain physical reactions, while aesthetic experiences are more related to mental appreciation. By measuring demand in terms of these experiences, rather than the various forms of recreation activity, the problem of changing tastes and attitudes will be partially compensated.[2]

Weir strikes at something of the same vein when he speaks of judging the worth of a recreation program according to the instincts which it satisfies. Among these he listed:

1) Provision for physical activities
2) Constructive, creative facilities for handcraft art activities

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[1] Ibid., p. 13.

[2] National Advisory Council on Regional Recreation Planning, A User-Resource Planning Method, Loomis, California, 1959, pp. 29-31.

3) Opportunity for learning of the natural world

4) Experiences in communication, conversation, story telling, etc.

5) A chance to express feelings and mental concepts in beautiful ways, such as music and art

6) Opportunities for people to mingle together in social intercourse

7) Opportunity for communication with a higher power outside oneself.[1]

The grouping of recreational activities according to the type of experience they can yield, is illustrated in Table 3. The subjectivity of such a classification, is limiting, but does not destroy its usefulness. It should be noted that some of the activities could be grouped and classified as complementary activities. For example, swimming and picnicking so often occur together that one could be considered to complement the other, giving a 'new' total experience.

It will be noted from this table that 'scientific' was classed as an intellectual experience. This refers primarily to amateur studies of archaeological findings, and biological specimens, in various conservation areas. While the classification 'social' was not listed as an experience in any particular instance, it could have been included under certain circumstances for all activities.

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[1]Charles E. Doell, quoted from the late L. H. Weir, and included in class notes, R.D. 442, Michigan State University, Winter 1961, p. 48.

TABLE 3.--Selected outdoor recreation activities available in conservation areas, 1962, classified according to type of experience

| Activity | Experience |
|---|---|
| Swimming | 1 |
| Picnicking | 3 |
| Hiking | 1, 2, 3 |
| Nature Trail | 4, 3, 1 |
| Fishing | 2, 1, 3 |
| Boating | 2, 3 |
| Winter Sports | 1, 2 |
| Competative Sports* | 1, 2 |
| Hunter Training | 4 |
| Archery | 2, 1 |
| Bait Casting | 2 |
| Dog Trials | 2 |
| Sight Seeing | 3 |
| Interpretation | 4, 3 |
| Scientific | 6 |
| Pioneer Village | 4, 3, 6 |

*No formal facilities provided

Key: 1 Physical Exercise
2 Emotional
3 Aesthetic
4 Educational
5 Social
6 Intellectual

Source: This classification of experiences is the writer's opinion based on the discussion in the User-Resource Planning Method.

The need for experiences which have been discussed, is the first dimension of Clawson's demand. Much has been written concerning the social and economic forces creating this need. Farina, a sociologist at the University of Toronto, asserts that, "Canadian patterns of the use of leisure for recreation appear to be characterized by 'flight'."[1] Flight from an inner impoverishment of

[1] J. Farina, "The Social and Cultural Aspects of Recreation," Resources for Tomorrow Conference Background Papers, Vol. II, Ottawa, 1961, p. 944.

intellectual, spiritual, and physical resources of the individual, brought on by technological advances primarily mass production; flight from the city; flight from the home; and flight from reality, reflect the hurry, bustle and tension, the philosophy of consumption and emotional stimulation of our world of work.[1]

In more precise terms, Lloyd Brooks lists three factors which are shaping the demand for recreation space in Canada; population, increased available time and income, and the influence of technology.[2]

## The Population Factor (A)

> The population pattern, in terms of numbers, composition, and distribution is a fundamental factor to be considered in the evaluation of the demand for renewable resources for recreation use.[3]

Population as a factor in the need for recreation in human society is perhaps as important as its role in creating demand for recreation space as a result of the need. This is clearly evident in a Metropolitan area like Toronto, and is most directly related to the characteristics Brooks was concerned with, namely, size, composition and distribution.

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[1] Ibid., pp. 944-945.

[2] Lloyd Brooks, "The Forces Shaping the Demand for Recreation Space in Canada," Resources for Tomorrow Conference Background Papers, Vol. II, Ottawa, 1961, p. 958.

[3] Ibid., p. 958.

The data in Table 4 and Figure IV describe some of these characteristics.

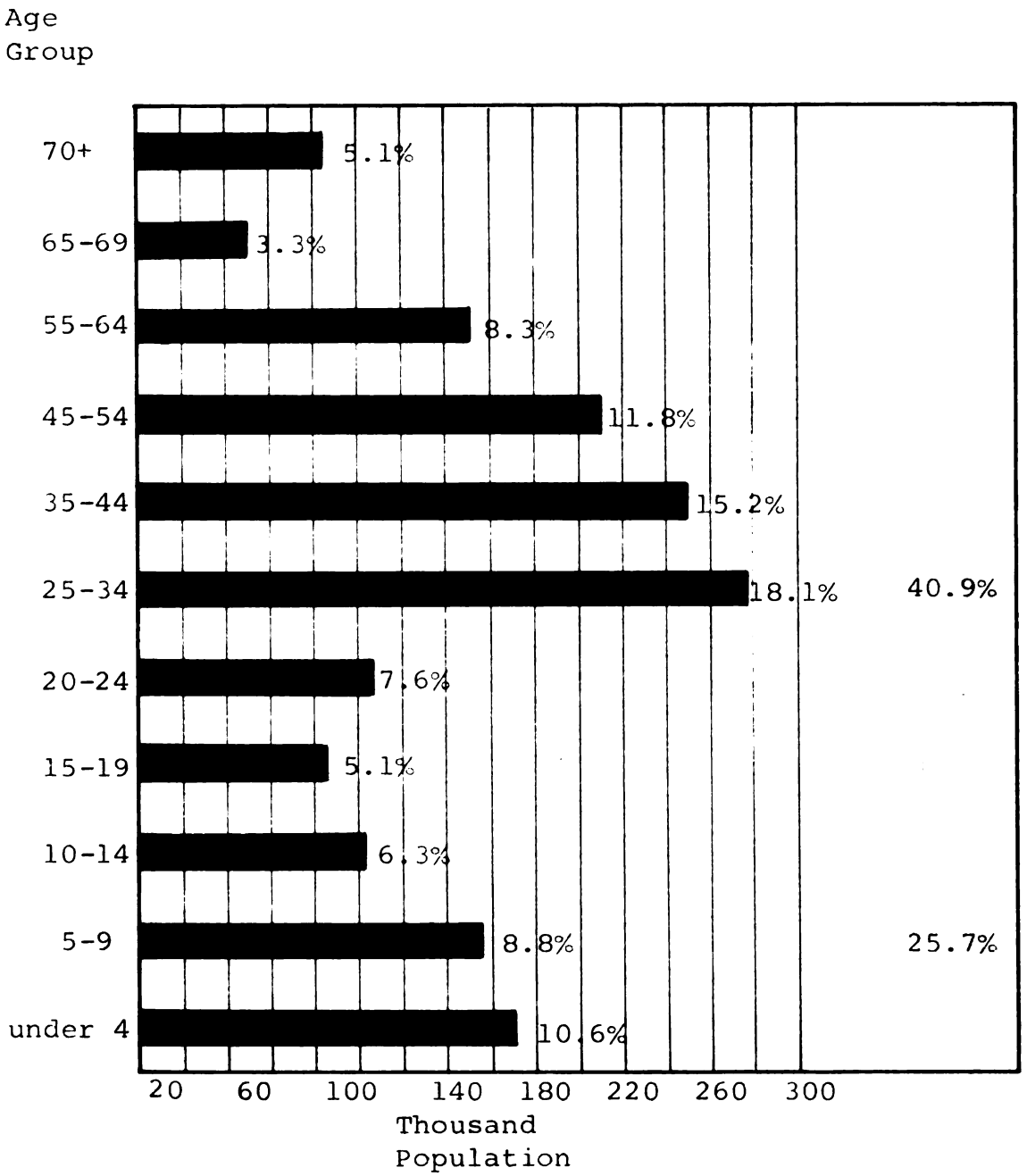
TABLE 4.--Comparison of the size of rural and urban populations in the Counties of Ontario, Peel, and York, 1951 and 1956

| County | 1951 | | | 1956 | | |
|---|---|---|---|---|---|---|
| | Urban Population | Urban % of Total | Rural Population | Urban Population | Urban % of Total | Rural Population |
| Ontario | 59,251 | 68 | 27,837 | 75,287 | 69.4 | 33,153 |
| Peel | 26,738 | 48 | 28,935 | 59,601 | 71.7 | 23,507 |
| York | 1,134,516 | 96.4 | 42,106 | 1,392,509 | 96.6 | 48,092 |
| Total | 1,220,505 | | 98,878 | 1,527,397 | | 104,092 |

Source: Dominion Bureau of Statistics, Census of Canada, Population 1951 and 1956.

The three counties cited in this table include more area than is under the jurisdiction of the Metropolitan Toronto and Region Conservation Authority. (Figure II) The inclusion of the additional area is appropriate since the 1959 conservation area users survey showed that 10 percent of the visitation was from outside the region. In the period 1951-1956 the total urban population in the three county area increased by 306,000, an increase of 20 percent. The rural population in the same period increased by only 6 percent. A large portion of this increase was in the rural

Figure IV: Population by age groups
Peel. York and Ontario Counties 1956.




Source: Dominion Bureau of Statistics, Canada,
Census of Population, 1956.

non-farm category. The total population of the three counties increased by 313,000 to 1,632,000, an overall increase of 16 percent. These figures are significant with respect to the need for outdoor recreation in that they depict a rapidly expanding urban area. As more and more people live closer together the need for the 'flights' described by Farina are intensified.

Figure IV shows the age composition of the three county population. It will be seen from the figure that 40.9 percent of the 1956 population was in the age group 20-44 years. It is most probable that this group will have children in the group 0-14 years, which made up 25.7 percent of the total population. It is families with children under 14 years that most often act together as a family, and it can be expected that this will be the case for outdoor recreation. The 1959 conservation areas user survey indicated that the dominant group using conservation areas was the family with young children. Sixty-six percent of the three county population is in the young family group, and this constitutes a need for family recreation facilities. The family is a primary social group, and the experience of their enjoying recreation together is allied with the social experience of which Weir spoke.

## Increased Available Time

The relationship between increased available time and the need for recreation is inherent in a generally accepted definition of recreation. Doell defines recreation as "refreshment of the mind or body or both through some means which in itself is pleasureful."[1] It can be assumed that such refreshment is generally sought during leisure time. With increased leisure time, the need for recreation can be expected to increase. The changes which have occurred in the Canadian work week since 1870 are shown in Table 5.

TABLE 5.--The increased amount of leisure time as a result of the shortening work week, 1870-1955, projected to 1970

| Year | Work Week in Hours | Leisure Time in Hours |
|---|---|---|
| 1870 | 68 | 16 |
| 1900 | 60 | 24 |
| 1930 | 48 | 36 |
| 1940 | 47 | 37 |
| 1950 | 45.5 | 38.5 |
| 1955 | 41 | 43 |
| 1970 | 35 | 49 |

Source: Lloyd Brooks, "The Forces Shaping the Demand for Outdoor Recreation Space in Canada," Resources for the Future Conference Background Papers, Ottawa, 1961, p. 960.

In this 100 year period, leisure time will have increased threefold. To assume that all of this new free time will be used for recreation would be in error, as it would be

[1]Charles E. Doell, Dept. of Resource Development, Michigan State University, Lecture notes, R.D. 442, Winter 1961, p. 1.

incorrect to assume that the entire population enjoyed 43 hours of leisure in 1955. This data, however, does indicate a trend which cannot be denied and will certainly have some effect in the demand for recreation.

The foregoing paragraphs have discussed factors in creating the need or desire for outdoor recreation which have in a rough way been measurable. There are many social factors, however, which cannot be associated with figures. Among these are automation, necessitating large segments of the population being engaged in routine jobs; education, as a higher percentage of the population receives a good education, more cultural and intellectual recreation experience is sought; and, advertising creates in people a belief in their need for certain types of recreation.

The second part of the demand of which Clawson spoke, was the demand for outdoor recreation opportunities as a result of the need. Related to this aspect of demand is the size and distribution of the population and the ability of the population to seek experiences they need.

## The Population Factor (B)

As has been seen, the population of the three counties in which the Metropolitan Toronto Region is located was 1,632,000 in 1956. Figure V shows the distribution of the population by municipality, in the area of authority jurisdiction, in 1962. It will be noted from this figure that

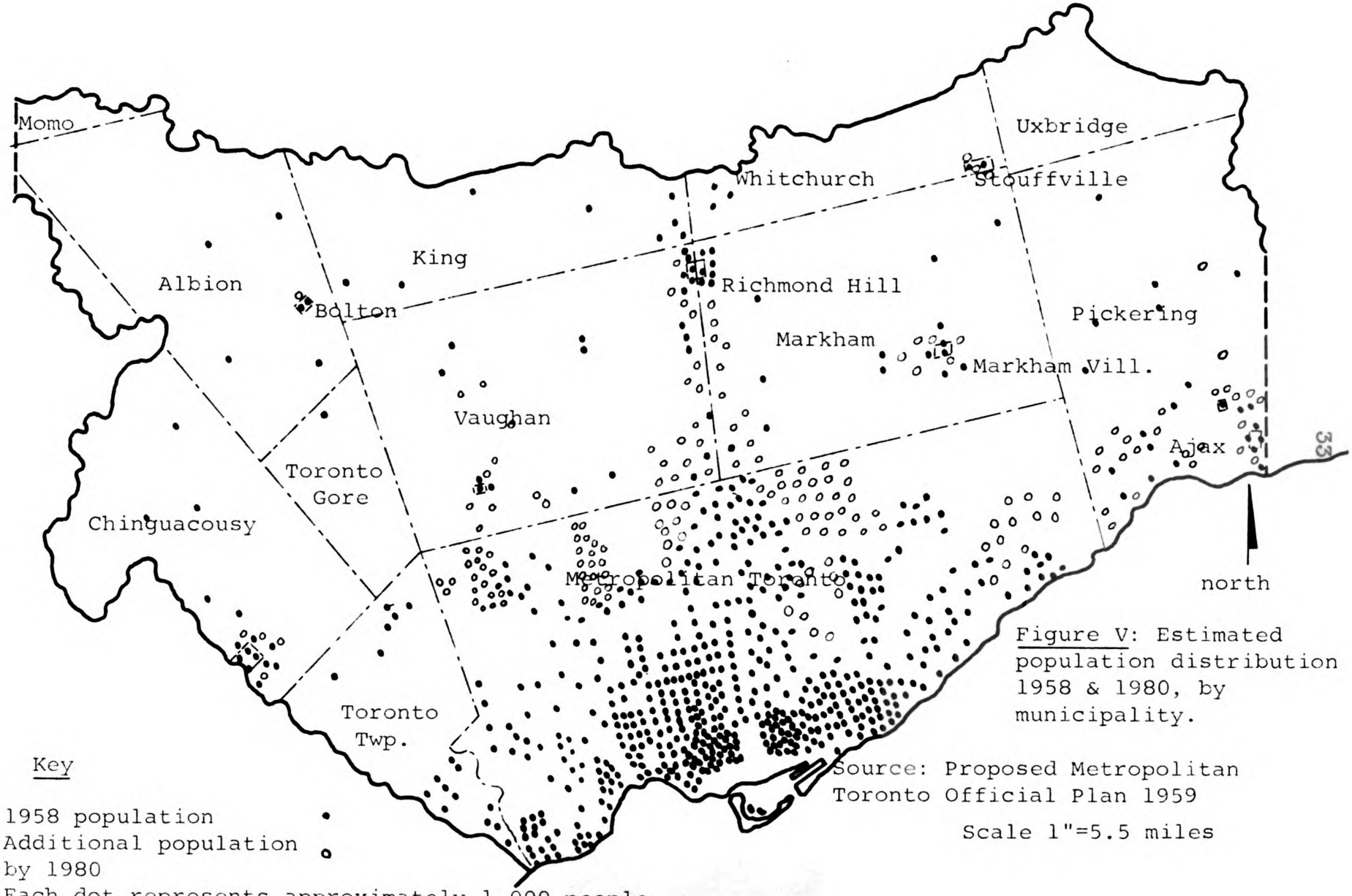



Figure V: Estimated population distribution 1958 & 1980, by municipality.

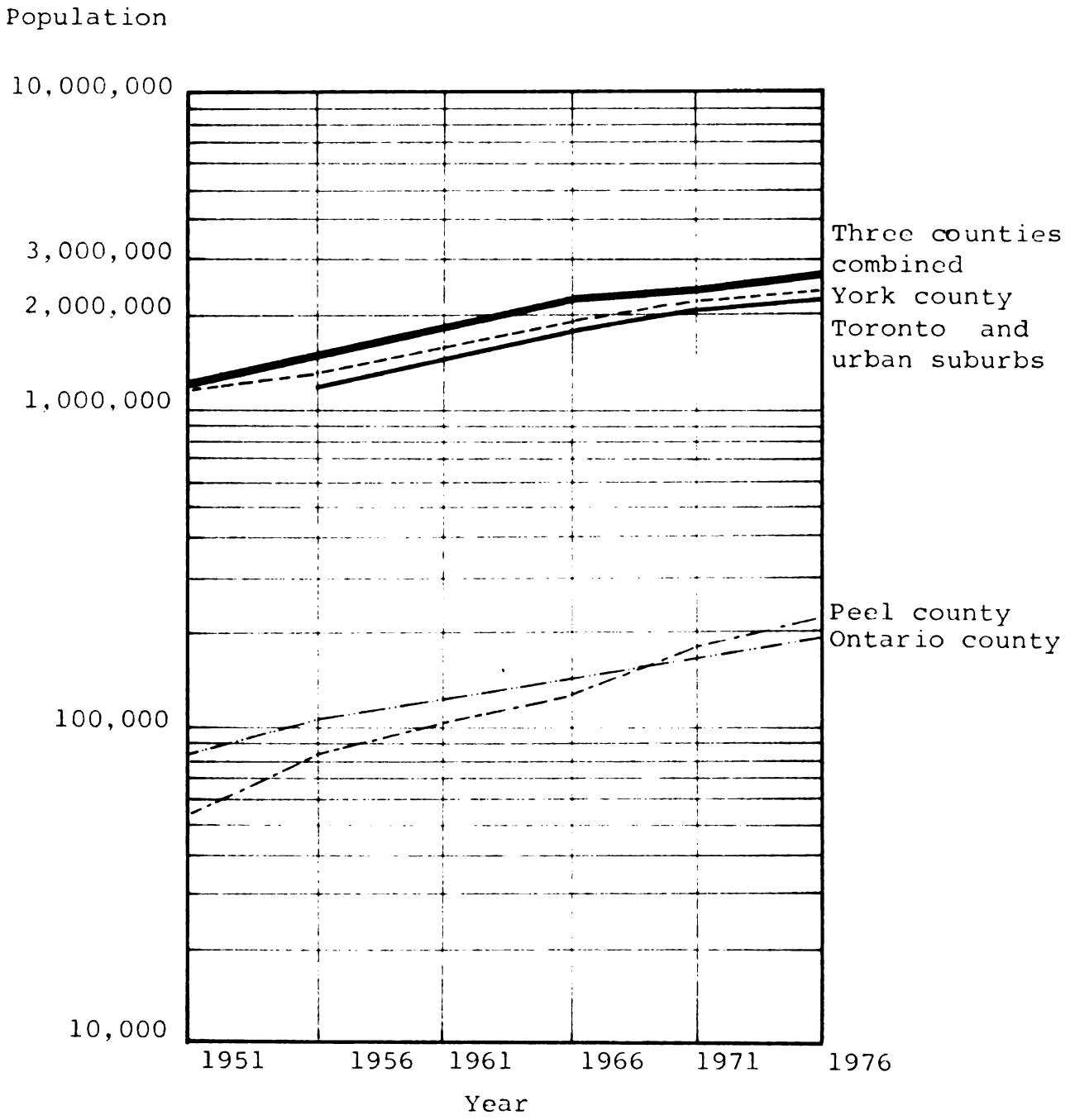
Source: Proposed Metropolitan Toronto Official Plan 1959

Scale 1"=5.5 miles

the core of dense population is Metropolitan Toronto itself. Surrounding the city is a belt of fairly heavy population, and then a wide belt of rural density population. It is in this area that most authority owned lands will be located. The location of conservation areas with respect to the bulk of the area's population, has an important relationship with Farina's 'flight from the city' characteristic of recreation. The conservation areas set in a rural atmosphere are the oft-time objective of thousands of visitors from Metropolitan Toronto, who in 1959 comprised 73 percent of the total conservation area visitation.

It was noted earlier that the use of straight population projections as estimates of future recreation demand should be qualified by the knowledge of changing attitudes towards leisure time, and changing tastes in recreation. In this same matter population projections should be tempered with the knowledge of the forces active in society creating a need for outdoor recreation experiences. Since it is difficult to measure these considerations quantitatively, the population projections in Figure VI are presented as indications that the population base, in which the need for and attitudes towards outdoor recreation thrive, will increase. The Ontario Department of Economics estimates that the population of Peel, York, and Ontario counties will have increased by 1976 to 2,873,000. In the same period the city of Toronto and its urban suburbs, forming the major portion of this

Figure VI: Population projections 1956-1976




Source: Ontario Economic Survey,1961, Ontario Department of Economics, Toronto, 1961

total, will increase to 2,275,000. This data in Figure VI is plotted on a semi-logarithmic three cycle chart to illustrate two things: (1) the population increases in all census units shown, with the exception of Peel County, are expected to occur at a decreasing rate (the shape of the curves) and (2) the rates of increase in each case are expected to be approximately the same. The significance of these points is that the area beyond the urban suburbs is expected to keep pace in population increase with the urban area, and probably become increasingly urban itself. It is in the area beyond the urban suburbs that most conservation area land is to be located. This area is now rural, but cannot be expected to remain entirely so.

## Increased Available Income

Personal expenditures for recreation are very difficult to determine. It is generally asserted that income available for consumer goods and services has increased in past decades. The Dominion Bureau of Statistics estimates that the recreational component of the family budget can be safely placed at about 3 percent.[1] Table 6 shows the estimated per capita personal income in the Metropolitan region for the years 1951-1959, and the amount of money per capita for those years which would be available for all recreation, using the D.B.S. 3 percent statistic.

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[1] Ibid., p. 961.

TABLE 6.--Estimated per capita personal income for the Metropolitan Toronto Region, 1951-1959, and the estimated amount available for all recreation

| Year | Per Capita Income | Available for all Recreation |
|---|---|---|
| 1951 | $1,711 | $51.33 |
| 1952 | 1,777 | 52.33 |
| 1953 | 1,876 | 56.28 |
| 1954 | 1,910 | 57.30 |
| 1955 | 1,969 | 59.07 |
| 1956 | 2,055 | 61.65 |
| 1957 | 2,102 | 63.06 |
| 1958 | 2,173 | 65.19 |
| 1959 | 2,266 | 67.98 |

Source: Department of National Revenue, Taxation Statistics, as reported in the Ontario Economic and Social Aspects Survey, Ontario Department of Economics, Ninth edition, 1961, p. 269.

The implication of this table is that even though the proportion of the family budget available for recreation remained constant, the trend to increased income as shown has made more money available for recreation. It can be expected that outdoor recreation will receive its share of the recreation budget. The more money that becomes available for recreation the easier it is for people to use their time in recreation pursuits, and this can be expected to increase the demand for recreational opportunities. Again outdoor recreation facilities can be expected to receive a share of the increased demand.

## The Influence of Technology

Modern technology has played a major role in shaping the demand for outdoor recreation. Its primary influence has been in making accessible for recreational use by the public, recreational lands beyond the limits of urban public transportation. The automobile in combination with good roads, has brought into demand large rural recreation areas where city dwellers may congregate to indulge in a wide variety of passtimes. Clawson has classified recreation areas into three types: (1) user-oriented, city parks, usually accessible by foot; (2) intermediate, usually less than two hours drive for most users, scenic beauty and other natural advantages are desireable but not essential; and (3) resource-based, areas where nearness to the user counts for little, and natural qualities are most important.[1] It is these latter two types of areas which the advent of the automobile has positively affected, and this discussion will deal with type (2), this being the type to which conservation areas can be likened.

Good roads and the automobile have given the population a mobility which has revolutionized the pattern of urban living. The family car which was once considered a luxury, is now a necessity in most families. Table 7 shows

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[1]Marion Clawson, "The Crisis in Outdoor Recreation," Part 1, American Forests, Vol. 65, no. 3, March, 1959, p. 40.

the increase in Ontario motor vehicle registrations over a 21 year period.

TABLE 7.--Ontario motor vehicle registrations (passenger car) by year 1939-1960

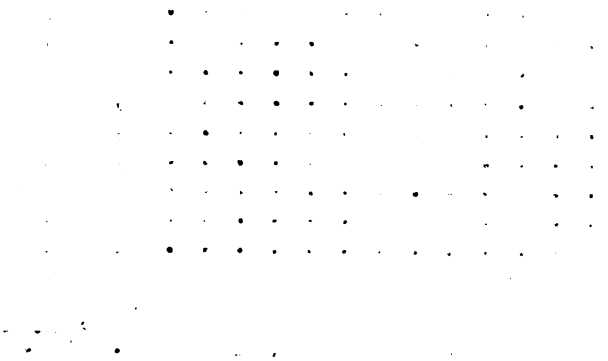
| Year | Number of Passenger Car Registrations |
|---|---|
| 1939 | 593,693 |
| 1946 | 585,604 |
| 1951 | 958,082 |
| 1955 | 1,292,133 |
| 1956 | 1,365,874 |
| 1957 | 1,431,438 |
| 1958 | 1,492,039 |
| 1959 | 1,573,365 |
| 1960 | 1,640,388 (preliminary) |

Source: Ontario Department of Economics, Economic and Social Aspects Survey, Ninth edition, 1961, p. 329.

In 1960 there was one passenger automobile in Ontario for every 3.5 persons.

In keeping pace with the demand for good roads the Highway Department has increased the desireability of operating an automobile, which is in part responsible for their increased use. The data in Table 8 indicates the rate of Highway building in Ontario.

In the three county Metropolitan region, in 1959, there were 468 miles of King's highways, no secondary highways; 610 miles of county roads, (mostly paved); 4,182 miles of township roads, (mostly gravel); and 1,347 miles of urban streets. The location of the major traffic routes present and proposed, in relation to conservation area land is shown in Figure VII.



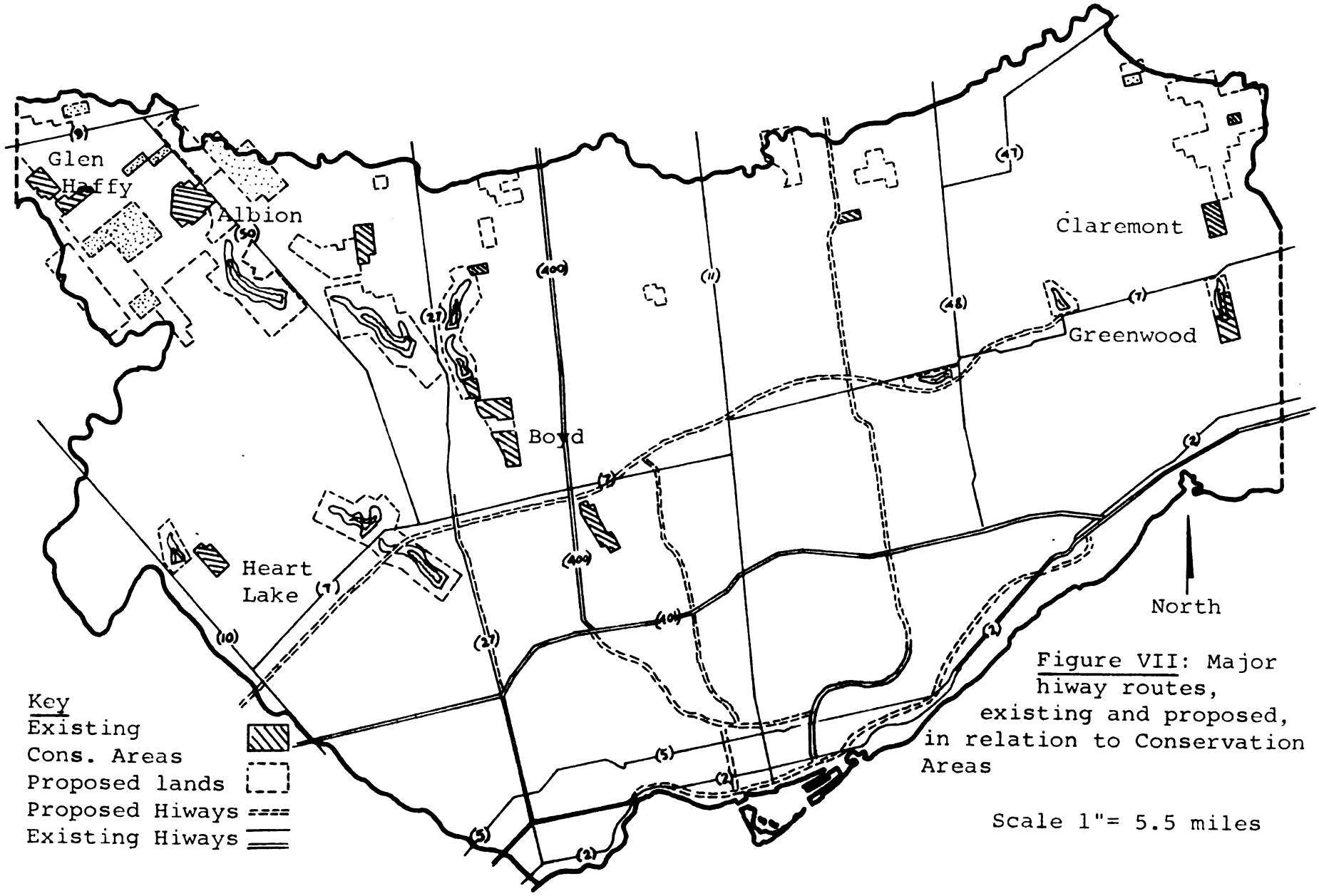



Figure VII: Major hiway routes, existing and proposed, in relation to Conservation Areas

Scale 1"= 5.5 miles

TABLE 8.--Road mileages in Ontario by type of road, for selected years, 1939-1959

| Year | King's Highways | Secondary Roads | Urban Streets |
|---|---|---|---|
| 1939 | 7,268 miles | 3,198 miles | not available |
| 1946 | 7,640 miles | 2,837 miles | not available |
| 1951 | 7,813 miles | 2,710 miles | 6,944 miles |
| 1955 | 8,522 miles | 2,395 miles | 7,718 miles |
| 1959 | 9,033 miles | 2,561 miles | 8,580 miles |

Source: Ontario Department of Economics, Economic and Social Aspects Survey, Ninth edition, 1961, p. 327.

## The Conservation Area Users Survey 1959

The mobility factor in outdoor recreation demand has important aspects other than those connected with technological advances. Demand has time and place dimensions which are of considerable importance in 'intermediate recreation areas.'

The survey conducted in the conservation areas in 1959, revealed some of the time and place dimensions of demand which are related to the mobility of people. Definite patterns of visitation were found, which are related to the times when people are free to visit conservation areas.

In four selected conservation areas, Boyd, Heart Lake, Albion Hills, a nd Greenwood, it was found that 91.2, 98.7, 96.3 and 97.7 percent respectively, of the visitations occurred between May 1 and October 15. These dates are considered

to be the extreme limits of summer type use. Within this summer period the bulk of the visitations occur in the three months of June, July, and August. In subsequent years non-summer use of the areas has been noted to increase, but this is primarily related to more favourable climatic conditions for winter use.

Within the summer period there are severe fluctuations in visitation, as indicated by the graphs in Figure VIII. By recording the number of vehicles entering and leaving the areas under study, at hourly intervals, it was determined how many vehicles were in the areas throughout the day. For most week days (Monday-Friday) it was found that the maximum number of vehicles in any area, at one time was usually less than 200, and often not more than 100. On Saturdays the maximum number of vehicles at one time ranged from 350-400, while on Sundays, this maximum rose to between 1,100 and 1,300. On most days, maximum use occurred between 2:00 p.m. and 4:00 p.m.

This wide fluctuation in visitation and its consistency in being maximized on summer Sunday afternoons, is believed to be associated with limitations on the mobility of people. An obvious relationship is the traditional Monday to Friday work week. Access to the conservation areas is available only by car, thus, the majority of trips to conservation areas employ the 'family' car with father at the wheel. Weekends are the most convenient time for such

Figure VIII: Selected traffic graphs showing number of vehicles in Conservation Areas at 1 hour intervals. Data from traffic survey conducted in 1959.

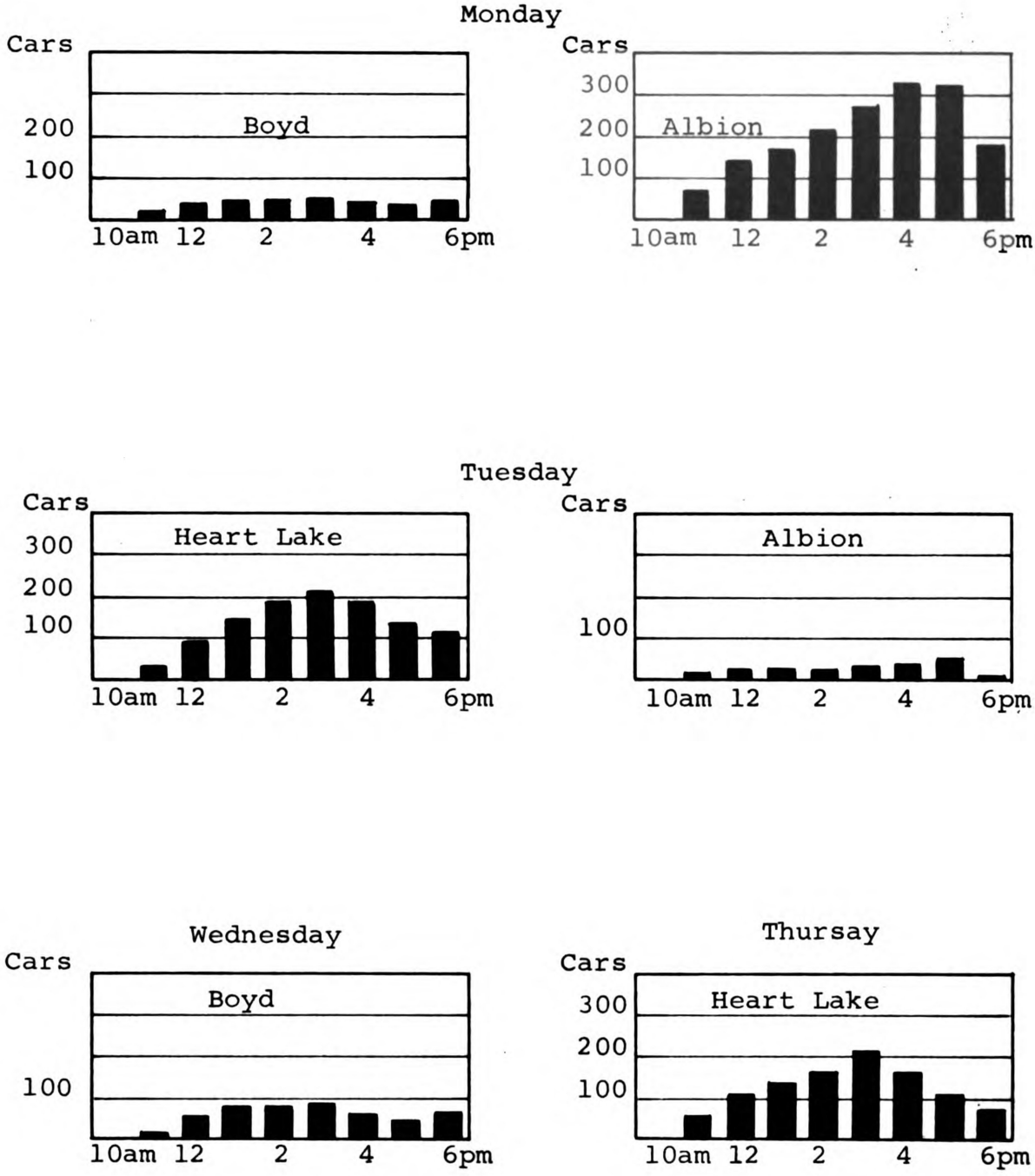
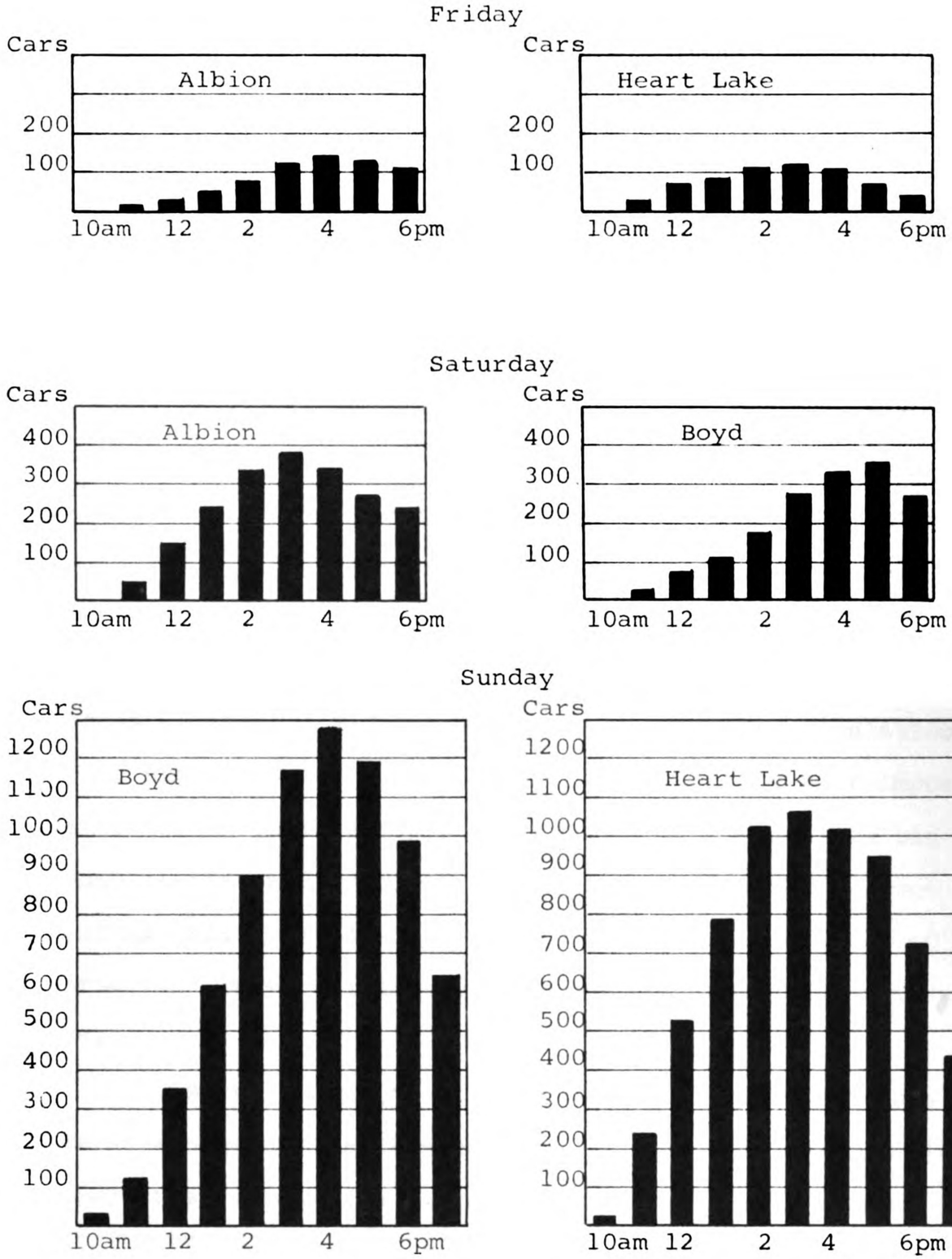


Figure VIII: con'd



an outing. The three summer months have only 14 weekends, thus, the bulk of Conservation area use is concentrated on 31 days of the year. (Three summer statuatory holidays are included.)

Another aspect of mobility is related to self imposed limitations by users. An analysis of data from the car count in the 1959 survey showed the majority of visitors remained in the area from 3-4 hours. With travel time added to this length of stay, an outing to a conservation area usually involved the better part of a day. Clawson has pointed out that there is a relationship between the number of visitors per thousand of a given population to a recreation area, and the distance the population is from the area.[1] Generally the relationship is, that the greater the distance from the recreation area, the fewer visitors per thousand population can be expected. In terms of mobility this is a self-imposed limitation in that visitors are willing to spend a limited amount of time and money to reach a recreation area. Compounding this relationship is the varying drawing power of recreation areas, related to their scarcity, and attractiveness.

Clawson's demand curve approach was applied to the data assembled in the 1959 survey. Visitors to five conservation areas during the survey period were asked to state on

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[1]Marion Clawson, Methods of Measuring the Demand for and Value of Outdoor Recreation, Paper presented at a meeting of the Taylor-Hibbard Club, Jan. 13, 1959, Univ. of Wisconsin, Madison, p. 12.

a questionnaire the name of the municipality in which they lived. The return distances from each municipality listed, to each of the five conservation areas, were calculated, and subdivided into 15 return mile zones from each area. The number of visitors from each zone was tabulated, and the number of visitors from each zone per thousand population in the zone was calculated. The results for each area were plotted on standard arithmetic charts, as shown in Figure IX. An examination of these charts will indicate that the return distance, visitors per thousand population relationship was present.

Three of the areas: Albion Hills, Greenwood, and Boyd, showed a very high visitor per thousand population rate in the 0-15 return mile zone. This would indicate that these areas have a very high local demand, as compared to the local demand for Heart Lake and Glen Haffy, which drew less than 700 visitors per 1,000 in this zone. Beyond the 0-15 mile zone all curves, with the exception of Heart Lake and Boyd, displayed similar characteristics, the number of visitors per 1,000 population decreasing rapidly with each succeeding zone. The curves for Heart Lake and Boyd, however, were flatter, indicating substantial visits per 1,000 population even in the 30-45 return mile zones. The major difference between Heart Lake and Boyd and the other areas in 1959 was that the former had good swimming facilities. With this exception all areas can be considered equally attractive.

Figure IX: Demand curves, (visitors per 1000 pop.) for five selected Conservation Areas. Data from Park Users Survey. 1959.

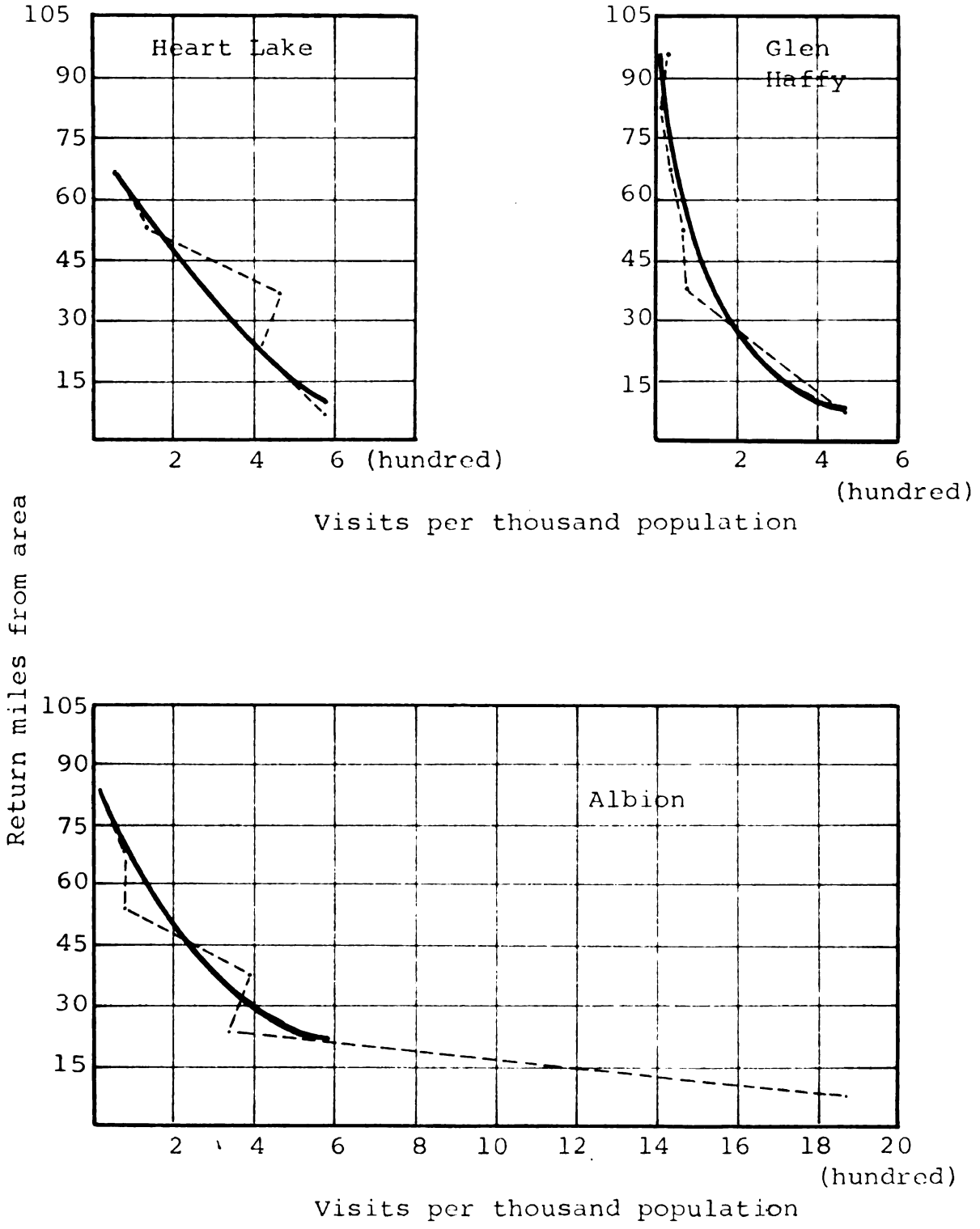
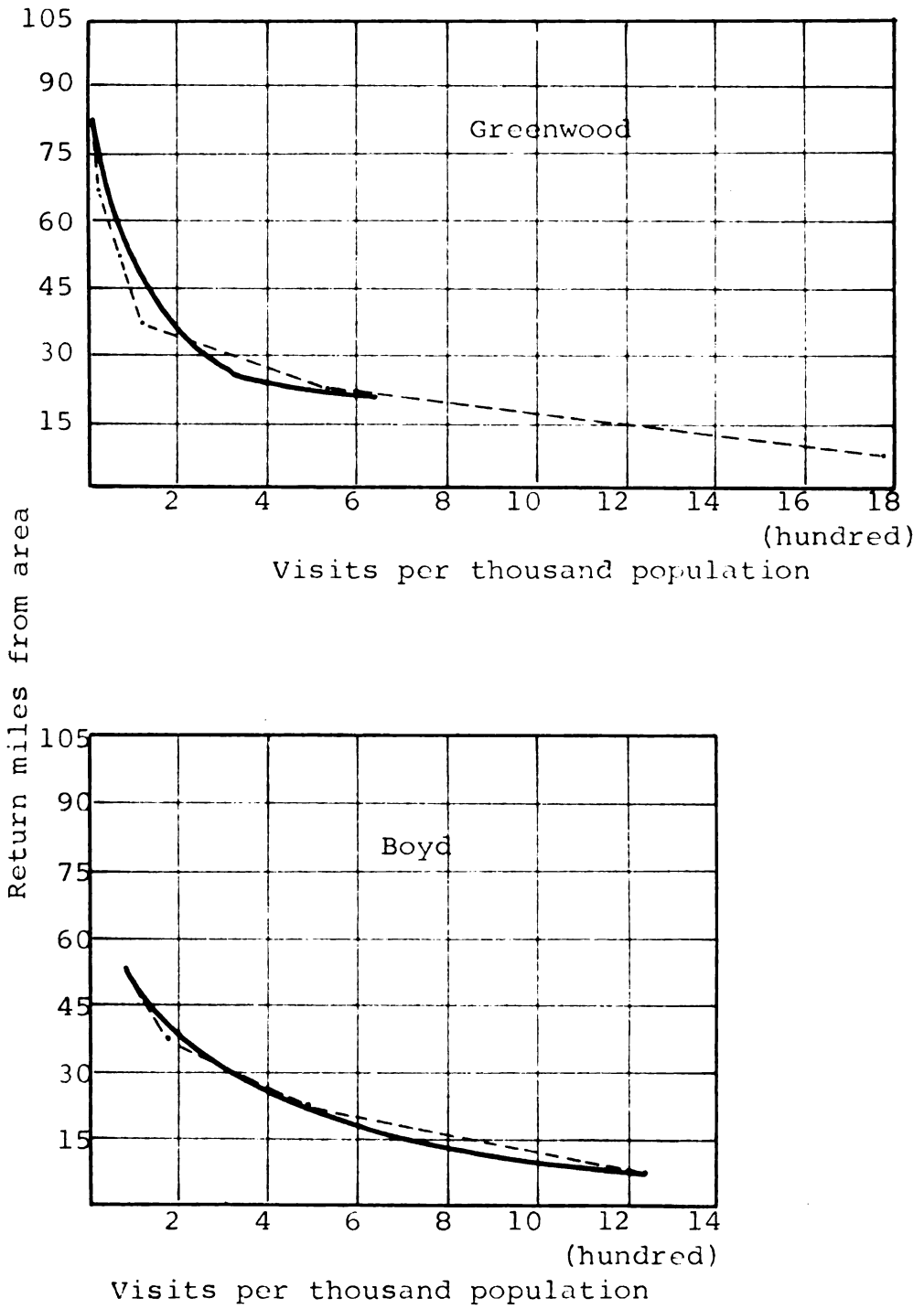


Figure IX Con't.



The presence of the swimming facilities, then, was a likely factor in creating this important difference in the curves. The low local demand at Heart Lake and Glen Haffy is difficult to explain. In the case of Heart Lake it may be attributed to severe crowding conditions which existed, thus, discouraging local users. Glen Haffy is surrounded entirely by rural population in the 0-15 return mile zone which again could account for low local use.

The significance of these investigations with respect to demand for recreation lies in the relationships which are evident among the forces which shape the demand. The core of the problem lies in the concept of visitors per thousand population to a given recreation area. To illustrate this let there be assumed a hypothetical situation in which a population of 100,000 contributes 1,000 visitors to a recreation area 10 miles distant. The demand in this case would be described as 100 visitors per thousand population. In view of the discussions in this chapter consider how the visitation to the recreation area might be increased.

1) By increasing the number of visits per 1,000 population.
    a) A change in attitude and taste for recreation in the population such that recreation is considered a 'property right,' and the facilities in the area are changed to suit current tastes.
    b) Increase in need for recreation through higher

population densities, increased urban living, increased young family groups, increased leisure time.

c) Increase ability to use recreation facilities through increased leisure time, increased available income, increased mobility.

d) Increase the desire to use the recreation area through technological advances which make outdoor experiences more pleasant, and provide opportunities to satisfy desired recreation experiences.

e) Increase the size of the population closer to the recreation area.

f) Increase publicity for outdoor recreation.

2) By increasing the population base generally.

All the factors under (1) can increase the visitations per 1,000 population, and (2) increases the thousands of population. In combination they have the ability to increase the visitation in the area many times.

All of these forces are at work in the Metropolitan Toronto Region, and can be expected to continue. The demand for recreation opportunities is not going to fall entirely to the conservation areas. User-oriented and resource-based facilities will share in the demand, as will private facilities.

Clawson estimates that by the year 2000, demand for intermediate recreation facilities may be as much as 16 times what it is at present.[1] In view of the discussion in this chapter this could well be the case for the Metropolitan Toronto Region.

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[1]Marion Clawson, "The Crisis in Outdoor Recreation," Part 1, American Forests, Vol. 65, no. 3, March, 1959, p. 40.

CHAPTER IV

# PRESENT PROGRAMS OF PUBLIC PARK AGENCIES IN THE METROPOLITAN TORONTO REGION

## The Park Tradition in Ontario

Ontario's park tradition dates back to the days of the province's earliest settlement, indeed to a time before organized settlement began. English surveyors preceeded settlement in Ontario in the late 1700's laying out the plan of settlement, and dividing the area to be settled into townships. According to the plan, each township was to have a town located in its geographic center, and street patterns for these towns were provided. Included in the plan for some towns was a public square which was to serve a park-like function. As settlement progressed, however, it followed the path of least resistance and much of the surveyers' planning was never realized.[1] With the arrival of Governor Simcoe in 1793, at the site of what was to become the town of York (Toronto), plans were immediately made for the lay-out of the garrison settlement on Lake Ontario. Incorporated in the plan was a wide belt of land, to be left as open space between the lake and the townsite. Before long, however, the

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[1]William A. McLean, "Town and Township of Whitby," Undergraduate thesis for the degree B.A., McMaster University, Hamilton, 1959, p. 47.

Governor had changed his mind and the open space was subdivided into 28 'park' lots of 100 acres each which were granted to officials of Simcoe's government.[1]

The earliest interest in a major park development in Ontario centered around the Toronto peninsula in 1846. This area, now the Toronto Island's Metropolitan Park, was a hooked spit sand formation, enclosing the Toronto harbor. In 1846, a request came to the Toronto City Council from the Commissioner of Crown Lands for permission to lease lots on this peninsula for private use. A special committee was formed to study the matter and they later reported:

> the committee is of the opinion that only the corporation can make the improvements necessary to render the peninsula a source of pleasant and healthful recreation and exercise to the inhabitants of the city generally, for which it is so eminently calculated.[2]

Thus occurred the first real interest in public parks in the Toronto area.

By the terms of the British North America Act, the Province of Ontario came into existance in 1867, and 20 years later the vestiges of a provincial park policy were formed. Queen Victoria Park, Niagara Falls, was the first park to be established by Act of Parliament in Ontario, this being in the year 1887. This park, now under the jurisdiction of the Niagara Parks Commission, was set aside as a natural wonder

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[1] J. E. Middleton, Municipality of Toronto, Canada, A History, (Toronto: Dominion Publishing Co.), 1923, p. 62.

[2] Ibid.

for the enjoyment of the province's population.[1]

About this same time, thinking on the Provincial level, was germinating in another direction. A suggestion of a clerk in the Department of Crown Lands fell on the receptive ears of the Deparment's Commissioner. The suggestion was to set aside a National Forest and Park in the Huron-Ottawa Tract of Ontario, made up of the headwater drainage areas of four large rivers; in order to preserve and maintain the natural forests; protect the headwaters and tributaries of the rivers; and make the area available for the people of Ontario to enjoy. This suggestion sparked serious study by the Ontario Government and in 1893, the Algonquin National Park Act was passed, setting aside an area of 1,466 square miles. This was later enlarged to 2,766 square miles, and the name changed to Algonquin Provincial Park.[2]

These early case histories of parks in Ontario, suggest two sources which have strongly influenced the province's park movement. The first of these is the British influence, as evidenced in the surveyor's attempts to give every town a public square. Governor Simcoe's grants of 'park' estates to his officials is reminicent of the English

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[1]C.R. Tilt, Provincial Parks in Ontario, Department of Lands and Forests, Ontario, Toronto, 1959, p. 7.

[2]Ibid.

nobilities' private estates, many of which now have been opened to public use. In Toronto, they were not preserved, and were put to other urban uses. Later, as the city of Toronto grew physically and culturally, the English botanic garden appeared, Allen Gardens, 1882, and these still have an important place in Toronto's park system. The second influence was the land itself, and the conditions of early Ontario life. The resident of Ontario in the middle 1800's had a strong identification with his natural surroundings. The Toronto Island Park, and the early Provincial parks were set aside because of their natural qualities, which the civic leaders recognized as having an important place in the lives of the citizens. A later influence, emanating from the American playground movement, around the turn of the century, further shaped Ontario's park tradition, particularly in urban areas, but none of this is evident in the early developments.

## Legislation for Parks and Recreation in Ontario

Municipal government in Ontario is a function of the Province, that is, municipalities exist as governmental units, at the will of the Province. A review of Provincial legislation concerning municipalities, with respect to Parks and Recreation will clarify this relationship.

The Ontario Municipal Act, which is administered by the Department of Municipal Affairs, stipulates the conditions

under which a municipality may be incorporated, and grants them power to pass by-laws concerning the various aspects of Municipal Government.[1] Chapter 243, section 386, paragraph 50, of the Revised Statutes of Ontario, states:

> By-laws may be passed by the councils of all municipalities:
>
> 50
>
> For acquiring land and establishing and laying our public parks, squares, avenues, boulevards, and drives in the municipality or in any adjoining local municipality, and where there is no board of parks management for exercising all or any of these powers which are conferred on boards of park management by the Public Parks Act.[2]

A similar clause exists in this act permitting municipalities to conduct community recreation programs, where there is no recreation committee as established in the Department of Education Act.

This is the simplest arrangement that can exist in an Ontario Municipality for a park and recreation program, and is the one by which most municipalities in the Metropolitan Toronto Region operate. Operating under this act, all final decisions are made by the municipal council. Usually, a department of municipal government is formed to administer the park, and/or recreation program for the council. The remainder of the legislation complicates the

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[1] R.S.O., 1961, Chapter 243.

[2] Ibid., sec. 386, paragraph 50.

situation, thus, for discussion purposes, it will be grouped into three categories: permissive legislation, legislation for assistance, and protective legislation.

Permissive Legislation

1) Public Parks Act (1950) R.S.O. 1960, Chapter 329, section 13.

> 1 (1) A park or a system of parks, avenues, boulevards, and drives, or any of them may be established in any municipality, and the same as well as existing parks and avenues, may be controlled and managed in the manner hereinafter provided:

The council must be petitioned to form a Board of Park Management; board can purchase, receive, or lease land for a park; land acquired (bought) shall not exceed 2,000 acres for a city of 100,000; or over 1,000 acres for a city of 10,000 to 100,000; and 500 acres for towns, villages, and townships; city can buy lands within 10 mile radius of corporation boundaries for park purposes, and towns within a five mile radius.

2) Provincial Parks Act (1954) R.S.O. 1960, Chapter 314.

While this act is not generally considered to affect municipalities, the establishment of a Provincial Park in a municipality can be of considerable importance. It is the policy of the Ontario Department of Lands and Forests, who operate Provincial Parks, that:

> In Southern Ontario, provincial parks should be sufficiently distant from large population centers to avoid confusion and conflict with municipal sphere of influence, in general, one or two hours

drive from large urban centers.[1]

> All provincial parks are dedicated to the people of Ontario and others who may use them for their healthful enjoyment and education, and the provincial parks shall be maintained for the benefit of future generations.[2]

3) Ontario-St. Lawrence Development Commission Act, R.S.O. 1960, Chapter 279.

This act is similar to the Niagara Parks Commission Act in that it sets up a commission, responsible to the cabinet, and deriving its funds from the Ontario Government, and operating revenues, for the purpose of developing, maintaining, and operating the parks under its jurisdiction.

This type of administration is used for park systems that constitute management problems of a special nature, and yet are of provincial significance.

4) Department of Education Act (1954) R.S.O. 1960, Chapter 94, section 12.

The portion of this act pertinent to recreation is administered by the Community programs branch of the Ontario Department of Education.

> 12 (3)
>
> Subject to the approval of the Lieutenant-Governor in Council, the Minister may make regulations with respect to adult education, recreation, camping,

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[1]From correspondence with A.B. Wheatly, Chief, Parks Branch, Ontario Department of Lands and Forests.

[2]R.S.O. 1960, Chapter 314.

and physical education.

(a) providing programs, therefore, also: authorizes the granting of municipal recreation directors certificates; authorizes municipal councils to form recreation committees (two municipalities with combined population under 25,000 can have a joint committee).

Legislation for Assistance

1) Department of Travel and Publicity Act, R.S.O. 1960.

3

The objects of the Department are to develop the Tourist Industry in Ontario, by promoting and encouraging improvement in the standards of accommodation, facilities and services offered to tourists, and to undertake the publicizing of the tourist industry and of the resources, attractions, and advantages of Ontario.

2) Department of Education Act (1954) R.S.O. 1960, Chapter 94, section 12.

4

. . . the Minister may make regulations with respect to . . . .

(f) prescribing definitions of approved maintenance and operating costs for the purpose of legislative grants for programs of recreation.

Regulation 92, R.S.O. 1960, provides the types of grants available. In general, these include a portion of the recreation directors, and assistants, salary, the amounts depending on the type of certificate they hold (approximately 33 1/3 percent), plus a portion of the program expenses. These are graduated according to population.

| Population | Amount of Grant |
|---|---|
| 25,000 | $ 6,500 per year |
| 25,000 to 75,000 | 11,900 per year |
| 75,000 to 200,000 | 16,400 per year |
| 200,000 | 23,600 per year |

3) Parks Assistance Act R.S.O. 1960, Chapter 285

2

The parks established under this act shall be maintained and operated for the use and enjoyment of the public, in such a manner as will be complementary to the use and enjoyment of provincial parks.

The intent of this act is to give assistance to municipalities (particularly those which are small and rural), to acquire and develop parks which will be useful to tourists as well as the residents. The present government policy is to make a grant of 50 percent of the cost of acquiring and developing parks, if the regulations made under this act are complied with: the municipality agrees to maintain the park; establish facilities for overnight camping, picnicking, sanitary, etc.; have entrances controlling entrance to the park; collect fees which are not less than those charged in Provincial Parks; restrict camping to 28 days per year, per person.

4) Horticulture Societies Act. R.S.O. 1960, Chapter 447.

9 (1) Aims and objects

(b) by encouraging the improvement of home and public grounds by the planting of trees, shrubs, and flowers, and by otherwise promoting outdoor art and public beautification.

The intent of this act is to legally constitute Horticultural Societies, and provide government aid for

their activities. Grants are made on a per member basis. Often in rural areas, horticultural societies are responsible for the park program.

5) Agricultural Societies Act. R.S.O. 1960, Chapter 11.

This act deals with the organization and administration of Agricultural societies, whose aims and objects are:

> 8 (1)
> (b) organizing and holding agricultural exhibitions
> (e) encouraging and promoting reforestation and rural beautification.

Grants are made to these societies on a per member basis for the first three years, and then as a portion of their expenses. Special grants are made for the holding of Agricultural Exhibitions, (Fall Fairs, etc.).

6) Community Centres Act (1958) R.S.O. 1960, Chapter 60.

> 2
>
> (1) The minister may grant aid to any municipality to assist in the establishment of a community centre, but no grant shall exceed $5,000 (except where building includes an indoor skating rink or swimming pool, in which case the maximum grant is $10,000) or 25% of the cost of a building designed for a community hall, indoor swimming pool or skating arena, or of the cost of an athletic field, outdoor swimming pool or an outdoor skating rink.

Regulations are made under this act defining the conditions under which a grant will be paid. Grants will be paid on several projects in the same municipality. No grants are paid for maintenance or operating costs.

7) Provincial Parks Act (1958). R.S.O. 1960, Chapter 88.

The Provincial Parks Act in permitting the establishment of provincial parks, provides assistance to municipalities in that a function of recreation is being served.

8) The Planning Act. R.S.O. 1960, Chapter 61 (part II)

26

(5) The minister may impose as a condition of the approval of a plan of subdivision
(a) that land to an amount determined by the minister but not exceeding 5% of the land included in the plan shall be conveyed to the municipality for public purposes other than highways.

The act further provides that where the land is in a community that has an official plan in effect, the minister may authorize the municipalities accepting 5 percent of the value of the land to be subdivided, in lieu of the land itself. Funds so gathered are set aside for the purchase of more suitably located land.

Protective Legislation

Several Provincial Statutes provide for the protection of resources which play a part in parks and recreation.

1) Beach Protection Act. R.S.O. 1960.

This act prevents the altering of shorelines without a permit from the Ontario Department of Mines.

2) Wilderness Areas Act. R.S.O. 1960, Chapter 432.

This act provides for the setting aside of public lands by the Lieutenant-Governor in Council for preservation in a natural state, for research and educational purposes. Regulations made under this act do not apply

to areas in excess of 640 acres.

3) Game and Fisheries Act. R.S.O. 1960.

This act permits the minister of Lands and Forests to make regulations concerning hunting and fishing in Ontario.

4) Provincial Parks Act. R.S.O. 1960.

The minister may make regulations for the care, preservation, improvement, control, and management of Provincial parks.

5) Archeological and Historic Sites Protection Act. R.S.O. 1960, Chapter 19.

The minister of Travel and Publicity may designate any land as an archeological or historic site. The Act provides for the regulation of the land so designated.

From this review of legislation for parks and recreation in Ontario, it will be seen that there is a great deal of power, and assistance on which municipalities can draw for their programs. All of this is in addition to the power and assistance granted under the Conservation Authorities Act.

The administration of this legislation falls to several government departments as indicated in Table 9.

Because of the amount of legislation concerning parks and recreation, and the number of Departments involved in administering the legislation, there was formed in 1959, a

Parks Integration Board. This board membership, including the ministers of Lands and Forests, and Highways, and the Provincial Treasurer, is charged with the responsibility of co-ordinating park and recreation programs in the province. To date, their activities have consisted mainly of making recommendations on provincial appropriations under the various acts. Having no staff and no funds of its own, the board's efforts at true integration of programs has been seriously limited.

TABLE 9.--Ontario government departments administering park and recreation legislation, 1962

| Government Department | Acts Administered |
|---|---|
| Lands and Forests | Provincial Parks Act<br>Parks Assistance Act<br>Conservation Authorities Act<br>Special Commission Acts |
| Education | Dept. of Education Act |
| Agriculture | Community Centres Act<br>Agricultural Societies Act<br>Horticultural Societies Act |
| Municipal Affairs | Public Parks Act<br>Planning Act<br>Municipal Act |
| Mines | Beach Protection Act |
| Travel and Publicity | Dept. of Travel & Publicity Act<br>Archeological & Historic Sites Protection Act |

## Organization of Municipal Park and Recreation Systems in the Metropolitan Toronto Region

Within this framework of legislation and administration, municipal park systems in the Metropolitan region are organized and operate. The responses of 12 municipalities surveyed in January, 1961, concerning their organization, and use of provincial legislation, are summarized in Table 10.

This summary indicates many significant things concerning the park and recreation systems in the Metropolitan area. Only two municipalities, Etobicoke and Scarborough, operate under the Parks act. Since no assistance funds are available under this act, the major reasons for a municipality using it is to "keep parks out of politics."[1] The remainder of the municipalities drew their authority from the Municipal Act, for their park programs. For their recreation programs, all municipalities, with the exception of the Village of Woodbridge, operated under, and received grants from the Education Act.[2] Of the 12 municipalities investigated, six operated their park and recreation programs jointly.

Generally, municipalities make good use of the assistance available to them from the government. An obvious

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[1]Eric Hardy and Frank J. McGilly, "The Hierarchy of Government and Public Agencies in Park Development," Resources for the Future Conference Background Papers, Ottawa, 1961, p.1039.

[2]Information from Brampton was not available but it was assumed that this was the case. Metropolitan Toronto does not have a recreation program.

TABLE 10.--Organization of municipalities in the Metropolitan Toronto Region for parks and recreation

| Municipality | Operate Under | | | | | | | Have Used | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Parks Act | Education Act | Municipal Act | Park Department | Recreation Dept. | Joint Park and Recreation Dept. | Parks Assist. Act | Community Centres Act | Conservation Authorities Act | Education Act | Established | Employ Full Time Staff | % of Budget from Grants |
| Village of Bolton | | x | x | | | x | | | x[1] | x | 1959 | x | 33 |
| Town of Brampton | | x | | | x | | | | | x | 1957 | x | 15 |
| Town of Brampton | | | x | x | | | | n.a. | | | | | |
| Twp. of Etobicoke (a) | x | | | x | | | | | | | 1952 | x | |
| Twp. of Etobicoke (a) | | x | | | x | | | x | | x | 1954 | x | n.a. |
| Twp. of North York (a) | | x | x | | | x | | x | | x | 1957 | x | 3 |
| Town of Leaside (a) | | | x | x | | | | x | | | 1930 | x | n.a. |
| Town of Leaside (a) | | x | | | x | | | x | | x | 1947 | x | 10 |
| Metropolitan Toronto* | | | x[2] | x | | | | | x[3] | | 1956 | x | |
| Town of Richmond Hill | | | x | x | | | | x | | | 1961 | x | 20 |
| Twp. Scarborough (a) | x | x | | | | x | | x | | x | 1955 | x | 2 |
| Twp. of Toronto | | x | x | | | x | | x | | x | 1947 | x | n.a. |
| City of Toronto (a) | | x | x | | | x | | | | x | 1884 | x | n.a. |
| Village of Woodbridge | | | x | | x | | | | | | 1950 | x | |
| Twp. of York (a) | | x | x | | | x | | x | | x | 1949 | x | 3 |
| Town of Richmond Hill | | x | | | | | | x | | x | n.a. | x | 30 |

Key: n.a. - Not available.
(a) - Member municipalities of Metropolitan Toronto.
*Responsible only for parks of metropolitan importance.
[1]Uses conservation authority land for local park (agreement).
[2]Operates under Metropolitan Toronto Act, 1954.
[3]Uses conservation authority land for metropolitan parks (agreement).

exception is the Parks Assistance Act, which no municipality replying had used. Probably, this is due to the conditions attached to the act. Municipalities must provide overnite camp sites, and make a charge not less than that in Provincial Parks, to use the facilities. This leads to the conclusion that assistance to municipalities was not the primary objective of the act, rather it was to take pressure off the over-taxed facilities of the Provincial Parks.

The responses to the question, 'What proportion of your budget do government grants form?', was not well answered. The information that was received, however, indicated that the small rural municipalities benefited most from government assistance. In three such areas government grants formed from 20 to 33 percent of their total budgets. In the larger municipalities, government grants formed from 0 to 15 percent of the budgets. The implication here is that small municipalities operating on limited budgets concentrate on programs for which grants are available.

## Programs of the Municipal Park and Recreation Systems in the Metropolitan Toronto Region

The questionnaires sent to the municipalities asked them to record the facilities they provided free of charge, and those for which they made a charge. The same question was asked concerning their programs. The responses are summarized in Table 11. Two observations are readily apparent; most

**TABLE 11.--Summary of facilities and programs provided by municipalities in the Metropolitan Toronto Region**

| Municipality | Facilities | | | | | | | | | | | | | | | | | | | Program | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Parkette | Tot-Lot | Playground | Play Field | Neighborhood | Botanical | Zoological | Large City | School Facilities | Ice Rink | Community Centre | Tennis Courts | Golf Course | Picnic Areas | Swimming Pool | Nat. Swimming | Bowling Green | Amusement Park | Ski Slopes | Natural | Day Camps | Competative Sports | Instruction in Skills | Summer Playground | Social (children) | Social (adults) | Social (senior citizens) | Interpretation | Arts and Crafts |
| Bolton | | | N | N | | | | | | N | N | | | | | | | | | | N | N | C | | | | | | |
| Brampton | N | | N | N | | | | | N | | | | | | | | | | | | C | C | C | | | | | | |
| Etobicoke (a) | | | N | N | N | | N | C/ | N | N | N | C | | C | | | | | | | C | C | C | N | C | C | C | | C |
| North York (a) | | | N | N | | | | | N | C | C | C | | C | | | | | | | C | C | C | C | C | C | N | | |
| Leaside (a) | | | N | C/ | N | N | | | N | N | | N | | | | | N | | | | C | N | C | C | C | C | | | C |
| Metro. Toronto | | | | | | N | N | N | | | | | C | N | | N | | N | N | N | | | | | | | | | |
| Richmond Hill | | | N | | N | N | | | N | N | | | | | | | | | | | | C | C | | N | C | N | | |
| Scarborough (a) | | | N | | N | N | | | | N | N | N | | | | | | | | | | C | C | N | C | C | C | | C |
| Toronto Twp. | N | | N | N | N | N | | | N | N | N | | | N | | | | | N | | N | N | C | N | N | C | | | C |
| Toronto* (a) | N | N | N | N | N | N | | N | N | N | N | | N | N | N | N | N | | N | N | N | N | C | N | N | C | C | | N |
| Woodbridge | | | | | | | | | C | C | | | | | | | | | | | | C | | | | | | | |
| York (a) | N | | N | N | N | | | | N | | | | C | | | | | | | | | N | C | N | N | C | N | | C |

C - Charge. N - No charge. (a) Member municipalities of Metropolitan Toronto.
* All facilities free of charge to residents; slight charge on some for non residents.

facilities provided by the municipalities are free of charge, while most recreation programs have a fee associated with them. The most common recreation facilities provided are playgrounds, playfields, neighborhood parks, ice rinks and community centers. (It was noted in the previous section that all these facilities are eligible for government grants.) The city of Toronto has the most complete program. As a general rule large natural parks, interpretation, major picnic areas, snow play facilities, good natural swimming areas, parkways and zoological gardens, do not form a part of the municipal park and recreation programs.

Under the organization of the Municipality of Metropolitan Toronto, the metropolitan government is charged with the responsibility of providing services of metropolitan significance. As presently organized the Metropolitan Parks Department is concerned with the provision of facilities, and this is its only recreation function.

> Metropolitan parks should be regional in appeal, serving large communities. They should have enough area to accommodate widely diversified interests and activities. Their development should be extensive, rather than intensive, and because they will involve, in total, a very large land area, they should be designed to be maintained effectively at a minimum cost. Our regional parks should take advantage of the available valley land and be no less than 250 acres in area.[1]
>
> There will be instances when it will be necessary to coordinate our planning with the need for neighborhood facilities. The locations of some parts of our large

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[1]Metropolitan Toronto Parks Department, Summary of the Metropolitan Parks Program, Toronto, 1960, p. 2.

> areas will suggest that they can serve an important neighbourhood function.[1]

These statements of policy indicate the intent of the Metropolitan Parks Department, and this is reflected in the activities indicated in Table 11: botanical, zoological, large city, picnic, amusement, and natural parks, these with facilities for golf, natural swimming areas and winter snow play.

In location and programing the municipal park and recreation programs are user-oriented, and are intended to serve the municipality whose tax-base supports them. All departments claimed that municipal taxes formed 45 to 100 percent of their income, and the majority stated a figure over 75 percent. All departments made a charge for some of their facilities and programs, and these constituted from 5 to 20 percent, of the Department's total income.

The incompleteness of the data for rural municipalities limits the value of observations made about rural recreation programs. It is interesting to note, however, that the two municipalities with the weakest programs, Bolton and Woodbridge, were in the 15 return mile zones for Albion Hills and Boyd Conservation Areas respectively, discussed in Chapter III. Both these areas displayed extremely high visitor per thousand population rates in this zone, which is further evidence that Conservation areas do perform a local function. No evidence was found from the questionnaires

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[1] Ibid., p. 3.

concerning the importance of the Agricultural Societies Act, and the Horticultural Societies Act in rural recreation. Correspondence from the division of the Department of Agriculture dealing with these acts, suggested thay they have an important role in rural municipalities. If this is so, they should be considered in addition to the recreation programs which the survey indicated in rural areas.

## Present Program of Conservation Areas

The concept of conservation areas is still in the infant stage, and this work is directed at providing a sound base for its development in the metropolitan region.

'Intermediate' park developments in the United States have had a strong influence in the development of the Metropolitan Toronto and Region Conservation Authority's conservation area program. When Ontario Conservation Authorities were in their formative stages, authority members toured the projects of the Cleveland Metropolitan Park District, and the Muskingum Watershed Conservancy District. When the Metropolitan Authority was being formed, members toured the Huron-Clinton Metropolitan Authority (Detroit). Staff members of the Metropolitan Toronto Authority are regularly sent to conferences and workshops in the United States, and have toured the projects already mentioned as well as the Cook County Forest Preserve District, the New York State Park System, and have attended conferences in California, North

Carolina, and North Dakota. Much of the policy now followed by the authority has been derived from these regular contacts. To a lesser degree, Canadian projects have had their influence, primarily the Ontario Provincial Parks.

The authority does not have a comprehensive statement of policy concerning its recreation activities, its action being based upon 'borrowed' principles, often inferred but rarely stated in its resolutions. A fundamental principle is that of maintaining the natural atmosphere of conservation areas. This principle thought to be in keeping with the intent of the Conservation Authorities Act is commonly found among the policies of American 'intermediate' park systems.

> Regardless of pressures, the interiors should be kept primitive and inviolate, with a connected system of trails through them, but otherwise accessible only by walking. The truest and greatest values of our forest holdings are in their ample size, their freedom from development, their spaciousness and their naturalness.[1]

In combination with maintaining the natural integrity of its areas, the Authority has followed a policy of development for recreation, not unlike that of the Huron-Clinton Metropolitan Authority.

> . . . is concerned only with providing adequate recreational facilities, for the leisure time of all people in the Metropolitan area--first, in the form of acreage space for the simplest form of recreation--picnicking, hiking--and similar pursuits--then, in the form of more

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[1]Forest Preserve District, Cook County, Illinois, Revised Report of the advisory committee to the Cook County Forest Preserve Commissioners, 1959, p. 11.

specialized activities--swimming, boating, . . . .[1]

In the same manner as the Huron-Clinton Metropolitan Authority, the Metropolitan Toronto Authority has indicated what it does not consider within the sphere of its responsibility.

> The role of the Authority is not to substitute for the responsibilities of local governmental units in their duty to provide neighbourhood, municipal, and county recreational facilities . . . .[2]

It should be noted here, that this policy concerns the actual provision of facilities for local use. As was seen earlier, the authority made agreements with Metropolitan Toronto, and the Village of Bolton, whereby authority land was made available for local use. In 1959, the Authority passed a resolution to make land available to the Town of Richmond Hill, but this scheme has not been approved by the Ontario government. In such agreements the Authority is a vehicle by which municipalities can receive government grants. The municipality involved is designated the benefitting municipality, and it must raise the entire Authority share of the required money, (usually 50 percent) and the government is asked to make a grant for the remainder. The appropriateness of this type of scheme is questionable in view of the other 'assistance' legislation which is available to municipalities.

The policy of the authority not to provide facilities which are deemed to be a municipal responsibility (formal

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[1]Huron-Clinton Metropolitan Authority, Ninth Biennial Report, Detroit, 1959, p. 11.

[2]Ibid., p. 18.

sports fields, playground apparatus, organized recreation programs), in its conservation areas, can also be viewed in the light of findings in previous chapters:

1) A major portion of visitation consists of young families.
2) Areas in the southern portion of the region will become surrounded by increasing urbanization.
3) Some areas displayed extremely high visitation per thousand population by local communities.

The resolution of this matter will be left to Chapter VIII.

In its fish and wildlife program, the authority has struck out on its own, although some influence from State and Provincial parks is evident. Fish and Wildlife management has had an important place in conservation area programming, and is expected to become more so as the Flood Control Plan progresses. Streams and bodies of water under the control of the authority, are managed and stocked to provide opportunities for public fishing. A trout hatchery and fishing ponds have been established at the Glen Haffy conservation area and it is the intention, to establish ponds on Authority lands for public fishing, wherever conditions are suitable. At the Boyd conservation area a nursery has been established to propagate trees and shrubs which provide suitable habitat for wildlife, and these are set out in other conservation areas where suitable. Several experimental 'food plots' have been established to determine suitable

methods for conducting this program. In addition, a conservation area has been set aside to meet the needs of the regions sportsmen, and has facilities for hunter safety training, dog trails, baitcasting, and field archery.

In conjunction with the fish and wildlife program, a nature program has been developed, consisting mainly of interpretation, a naturalist service, and a system of nature trails.

A list of the major activities currently available in conservation areas was given in Table 3. Table 12 indicates the percentage use which some of these activities received at five conservation areas in 1959.

TABLE 12.--Percentage number of visitors engaged in selected recreation activities in conservation areas, 1959

| Activity | Experience | Percent of Visitors | | | | | |
|---|---|---|---|---|---|---|---|
| | | Boyd | Albion | Heart Lake | Glen Haffy | Green-wood | Ave. |
| Swimming | 1 | 10 | 19 | 36 | 0 | 7 | 14 |
| Swimming & Picnicking | 1,3,2 | 56 | 55 | 46 | 21 | 43 | 44 |
| Picnicking | 3 | 29 | 13 | 10 | 0 | 29 | 27 |
| Picnicking & Nature Trail | 4,3,1,3 | 2 | 2 | .2 | .9 | .6 | 13 |
| Nature Trail | 4,3,1 | 1 | 1 | 0 | .9 | 0 | 0.6 |
| Group Camping | 5,1,3 | 1 | .05 | 0 | 0 | .6 | 0.3 |
| Fishing | 2,1,3 | 0 | 6 | 5 | 37 | 3 | 10 |
| Fishing & Picnicking | 2,1,3 | 0 | 0 | 0 | 37 | 0 | 7 |

Key to Type of Experience:

1. Physical exercise
2. Emotional
3. Aesthetic
4. Educational
5. Social
6. Intellectual

Source: Table 3, and 1959 Conservation Area users survey.

This chart shows the combination of picnicking and swimming to be the most favored activity in conservation areas, followed by picnicking alone, and then swimming alone. It will be noted that the aesthetic experience occurs most frequently, with physical exercise, and emotional experiences next in line. This reflects the intent of the authority to provide recreation activities for which there is as much satisfaction in their setting as there is in the activity itself. This is the major distinction of the conservation area program from the recreation programs of municipalities.

## CHAPTER V

## FINANCING THE CONSERVATION PROGRAM

The way in which the Metropolitan Toronto and Region Conservation Authority is financed, is prescribed in the Conservation Authorities Act.

> 38
>
> (1) An authority may from time to time determine what moneys will be required for capital expenditure in connection with any scheme.
>
> (2) The portion of moneys so required that each participating municipality shall raise, shall be in the same proportion as the benefit derived by each such municipality bears to the total benefit derived by all participating municipalities.
>
> (4) . . . an authority may enforce payment against any participating municipality of the portion of the capital cost required to be raised by the municipality . . . .[1]

In the same manner administration and maintenance costs are raised. For schemes in which all municipalities of the authority are designated as benefitting, the authority determines each municipalities share on the basis of population living within the area of the authority's jurisdiction. Moneys raised through the municipal levy are termed the 'authorities share.'

For most capital and administrative costs, the Ontario

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[1]Revised Statutes of Ontario, Conservation Authorities Act, 1961, section 38, items 1, 2, and 4.

government pays a grant, the amount of the grant being determined by the government itself.

42

> The lieutenant Governor in Council may make a grant to any authority out of the moneys appropriated therefore by the Legislature.[1]

In recent years grants to authorities have been made according to the following formulae:

1) Capital costs, except those incurred under the Plan for Flood Control and Water Conservation, or reforestation land . . . . . 50%
2) Administrative costs . . . . . 50%
3) Preliminary engineering costs . . . . . 75%
4) Reforestation land . . . . . 50%
   Value of timber on land[2]. . . . . 100%
5) Maintenance costs . . . . . .no grant

The Plan for Flood Control and Water Conservation, for grant purposes, is treated separately due to the Federal government's participation in the plan. Under the agreements by which this plan is financed,[3] the federal government agreed to participate in the provincial share of the plan to the extent of 50 percent. The provincial share was to be 75

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[1] Ibid., section 42.

[2] Subject to an agreement concerning the management and sale of products.

[3] Agreement signed between the Province of Ontario, and the Government of Canada, June 14, 1961.

percent of the total cost. Financing for the plan then, is:

Authority's share . . . . . 25%

Provincial share . . . . . 37 1/2%

Federal share . . . . . 37 1/2%.

This arrangement is to continue while the plan is in progress. Upon the completion of each project within the plan, financing will revert to a 50-50 sharing of administrative costs. Maintenance costs will be met 100 percent through the municipal levy.

All of the conservation areas are free to the public for use, but in most of them there is a 50¢ parking charge levied.[1] Food concessions are leased to the Canadian National Institute for the Blind, and these leases return 50 percent of the concession net profit to the authority. At the Heart Lake Conservation Area a boat livery is operated by the authority. The revenues from these operations in 1962, are expected to form 10 percent of the authority's total budget. (Exclusive of the Plan for Flood Control and Water Conservation.)

In 1961 the Authority established a Metropolitan Toronto and Region Conservation Foundation. This organization, whose board of directors consists primarily of authority members, was designed to encourage and receive donations of money and/or real property from those interested in supporting conservation work in this way. While the foundation is a corporate

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[1]Special charges are made at the Black Creek, pioneer village.

body, separate from the authority, its resources can only be made available to the authority for its work. The foundation is under no obligation to accept gifts not appropriate to the authority's work, or gifts given on conditions which are restrictive to the authority's work. As of this writing the total assets of the foundation are $10,000.00.[1]

The Conservation Authorities Act does not state that an authority can sell bonds in order to raise funds for capital projects. The only reference the act makes concerning the raising of money, other than those cited earlier in this chapter is in Section 16.

> Before proceeding with a scheme that is to be financed by funds raised and spent by the authority during the current year, the authority shall file plans and a description thereof with and obtain the approval in writing of the minister, and where any portion of the cost of a scheme is to be raised in a subsequent year or years, shall also obtain the approval of the Ontario Municipal Board.[2]

This wording has not been taken to mean that authorities may issue bonds for financing. In practice the authority pays its way year by year on the basis of projects completed. If approval of a scheme commits the authority to expenditures in subsequent years, it likewise commits each participating municipality to expenditures in subsequent years, and under

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[1]Metropolitan Toronto and Region Conservation Foundation, Charter, registered 1961.

[2]Revised Statutes of Ontario, Conservation Authorities Act, 1961, section 16.

the terms of the municipal act, such commitments by municipalities must be approved by the Municipal Board. Municipalities in raising their share of Authority costs may issue bonds or debentures, with Municipal Board approval. As far as the Authority is concerned, however, it operates year by year on current funds.

When an authority acquires land or other real property it is committed for all time to a municipal tax, based on an assessment, not in excess of its assessed value immediately prior to acquisition.[1] The costs incurred by the authority, then, for taxes is substantial and will continue to increase as land acquisition progresses. Taxes are considered an administrative cost on non-revenue properties, and a maintenance cost on revenue properties. In the latter instance no grant is paid for taxes. In both cases, however, all municipalities are designated benefitting, and share in tax payments to municipalities, in which authority owned lands are located. In some municipalities where there is a great deal of authority owned land, and a relatively low population, tax payments come near to equaling the municipalities share of authority costs.

For all projects under the Plan for Flood Control and Water Conservation, and for most conservation area and reforestation land schemes, all municipalities are designated as benefiting. For the purposes of this discussion,

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[1] Ibid., section 34.

the tax-base for the 'authorities' share' of costs can be considered the entire area under its jurisdiction. Some municipalities benefit slightly by the return of tax dollars from the authority. The provincial government has a large vested interest in authority property through its grants, and the federal government to a lesser degree has an interest. For all maintenance the authority's share constitutes 100 percent of the cost. These considerations will have an important influence in determining the role of conservation areas in the Metropolitan Toronto Region.

# CHAPTER VI

## THE PHYSICAL CAPABILITY OF CONSERVATION AREAS

### Location Factors

The physical capability of conservation areas to provide recreation opportunities is a matter of great importance in determining a rational role for the conservation area program in the Metropolitan Toronto Region. In defining a conservation area, it was noted that there were two characteristics which influenced their recreation capability: (1) the land types which were deemed suitable to perform the dual function of conservation areas, and (2) the understanding that conservation objectives had precedence over recreation uses.

The first of these is, in effect, a legislative limitation on the location of conservation areas. While it is not so stated in the Conservation Authorities Act, it is accepted that schemes of the authority in order to remain within the spirit of the act, should be limited to river valley and headwater (source area) locations. For some schemes, upstream projects apart from source areas have been undertaken, but have been either assistance programs to farmers, or straight reforestation projects where no recreation was contemplated. This inferred limitation has had a

strong influence on the distribution of conservation areas, existing and proposed, and the types of land which are common in conservation areas. Figure I shows the distribution of existing and proposed conservation areas in relation to the river valley system.

## Physical Characteristics

In general, the physical characteristics of conservation areas are such that conservation area land is unsuitable for most types of agricultural, residential, industrial and commercial uses. Important exceptions to this generalization are managed pasture, rural residential (non farm), private forestry, and gravel operations. In many areas, conservation areas compete with these alternate uses for land. In a positive sense the physical characteristics of conservation areas lend many aesthetic qualities to the land, primarily due to variety of relief, forest cover, good quality surface water, and open meadows. In combination, these characteristics provide appealing views, and an atmosphere in which nature is omnipresent. These inherent characteristics to some extent justify the authority's basic recreation policy noted in Chapter IV, to restrain development in order to preserve the natural qualities of the areas, and they are, no doubt, responsible for 'aesthetic' being the predominate experience enjoyed by visitors.

In detail, however, these characteristics pose

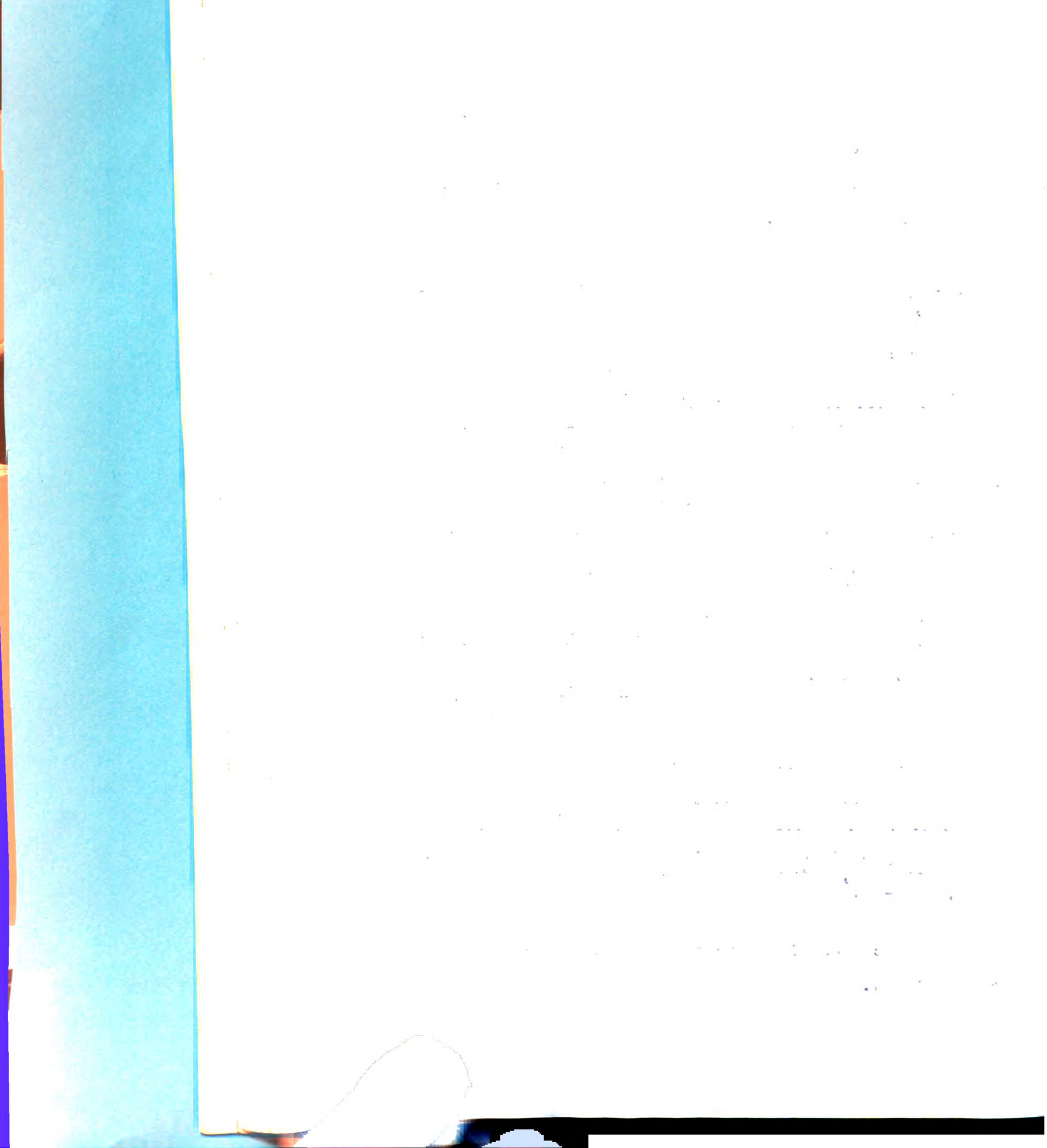
problems in development and use for recreation purposes. The physical characteristics of the land types common to conservation areas, where a generalization is appropriate, are summarized in Table 13.

TABLE 13.--Physical characteristics of land types in conservation areas, Metropolitan Toronto and Region Conservation Authority

| Land Type | Physical Characteristics | | | |
|---|---|---|---|---|
| | Cover | Terrain | Drainage | Soil |
| Flood Plain | variable | flat | good-imperfect | silty loams |
| Valley Slopes | wooded | more than 5% slopes | excessive | variable |
| Source Areas | wooded | hummocky | poor | mucks |
| Wetlands | wooded marsh | flat | poor | mucks |
| Demonstration (agriculture) | open | rolling to hilly | variable | variable |
| (reforestation) | open | hilly | good to excessive | light sandy |
| Lakes | | | | |
| Reservoir sites | variable | variable | variable | variable |
| Buffer | variable | flat to rolling | good to imperfect | clays to clay loams |

Source: Summary of land descriptions in 29 approved conservation area schemes, Metropolitan Toronto Region Conservation Authority, 1957-61.

The following sections will discuss how these characteristics affect capability.



## Factors Affecting Capability

Among the factors which affect capability of land for recreation are those which are only indirectly related to physical characteristics, and can be termed non-physical. The first of these is one that has already been suggested, the policy of maintaining a natural atmosphere for aesthetic appeal. The elements of nature which combine to create a natural landscape as man finds it are in delicate balance. Persistent use by man, even without a conscious effort to change any of the elements, strikes an imbalance, and often causes the deterioration of the landscape. The degree and rate with which deterioration occurrs is determined by the type and intensity of use, along with the management practices that are instituted to counteract the effects of use. The 'safe' level at which use and management are determined can be termed the capability or carrying capacity of the landscape, if it is to yield satisfactions equivalent to an unused landscape. This determination will be the result of managerial decisions, reflecting the skill of the manager, and recognizing the relationship between the type of use and the quality of the recreation site.

A second non-physical factor affecting capability, is the uses other than recreation which the land is to serve. These have been termed 'conservation uses.' There is no concern here with maintaining a natural atmosphere, although an

appealing landscape would not be destroyed unnecessarily. The effects of these uses on the lands capability for recreation uses varies considerably according to each situation. A few common examples will illustrate the point. (1) Flood plain land must not be altered in any way that would restrict the passage of flood waters through the area. Floods of varying severity can be expected every year. Improvements to such land for recreation must be of a type that can withstand minor flooding, and not involve filling operations. (2) A reservoir may be designed to maintain a constant pool of water, or it may be of a complete draw-down type. In either case, the water level will fluctuate, if the primary purpose of the reservoir is flood water storage. These conditions can seriously limit fish management, the provision of beaches and beach facilities, and recreational boating and fishing. (3) The management of a woodlot for timber production can change the value of that woodlot for recreation. The change that is likely to occur is an increase in the carrying capacity for recreation use, and a decrease in its aesthetic appeal, which is a factor of its capability. (4) Reforested lands are generally judged unsuitable for most types of recreation because of their low trafficability qualities and the danger of fires. Often it is necessary to reforest portions of conservation areas due to erosion problems.

A most important factor affecting capability is the type of recreation uses for which capability is to be judged.

A given site may be very suitable for picnicking and games, but entirely unsuitable for hiking and hunting. A sketch of shoreline may be well adapted to swimming, but lacking in adjacent land suitable for sunbathing, picnicking and parking. In another case, a site may be suitable for more than one recreation use, requiring a managerial decision as to which one (s) are the most appropriate. Capability then depends upon the type of recreation use that is contemplated for the land under consideration. There are a great many uses that can be applied to outdoor settings. A partial list of those available in conservation areas was given in Chapter III, and the relative importance of some of these was shown in Chapter IV. From these picnicking has been selected as a core activity involved in almost all visits to the areas, and will be used as an example of capability investigations. Picnicking in combination with swimming is the most intensive use that a conservation area land receives. At the other end of the scale, fishing and hunting[1] are among the least intensive uses, and the capability of land unsuited for picnicking will be examined for these uses. This rather arbitrary division of uses is based on the authority's classification of conservation areas. The Ancillary Measures Brief deals with two types of areas. (1) Major use, picnicking and allied

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[1]Hunting is not yet a recreation use available in conservation areas, but is under consideration as a possibility.

activities, and (2) Minor use, hunting and fishing.[1] The terms major and minor refer to the intensity of use, and should not be conotated with importance or size.

A second group of factors affecting capability of land, is its inherent characteristics: soil type, slope, cover, the amount and type of water present, and the climate of the area.

The study of soil capability for agricultural crops has long been a matter of investigation for soil scientists. Investigations of soil capability for 'recreation crops,' however, is an area that until recently received very little attention. Preliminary study of this matter has been undertaken by the Soil Conservation Service of the United States Department of Agriculture. Studies by Lloyd E. Tyler, resulted in a classification of soil for recreation uses based on topography, trafficability, and wetness. On the basis of these criteria, soils were classified according to their adaptability to developed recreation uses: picnic sites, camp sites, and play areas.[2]

Topography

A - slopes are 0-4 percent

B - slopes are 4-7 percent

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[1]Metropolitan Toronto and Region Conservation Authority, Plan of Ancillary Conservation Measures, February, 1962, section V.

[2]Lloyd E. Tyler, State Soil Scientist, unpublished notes, Soil Conservation Service, U.S.D.A., Champagne, Ill.

C - slopes are 7-12 percent

D - slopes are 12-18 percent.

Trafficability (surface soils only)

A - naturally well drained sandy loam

B - naturally well drained loam, silt loam

C - well drained silt clay loam, clay loam, imperfectly drained silt loam, and loam

D - all humic gley and alluvial soils and imperfectly drained silty clay loam, or silty clay

E - muck.

Degree of Wetness

A - all soils other than marsh or overscored soils

B - all overscored soils

E - all marsh conditions.

Cover, as a factor of capability, is important in the physical and aesthetic sense. For picnicking and camping both a sporadic distribution of trees, and a complete cover are desirable. A mixed woodlot is more appealing, than a reforested area of lined conifers. Varied conditions are also required for hunting. Open meadows, fence row growth, and healthy woodlots all contribute to the presence of game.

The presence of water or the lack of it is a contributing factor to capability.

Lakes:--The size, bottom conditions, shoreline, and biotic conditions determine their capability to support boating,

fishing, and swimming.

Streams:--The biotic conditions, temperature of the water, size and regularity of flow determine their capability to support fishing, and their adaptability to swimming and boating.

Reservoirs:--Their size, the runoff potential, depth, and shore conditions, determine their adaptability to recreation use.

Ground Water:--In areas depending on ground water supply, capability will depend upon its amount, availability, quality, and constancy of flow.

Climate is an important physical characteristic affecting capability. Primarily it will affect the type of recreation activities possible, and the time of year in which they are available. In the Metropolitan Toronto Region there are two climatic zones as designated by Putnam and Chapman.[1] The division between them follows a line in the vacinity of the 350' contour, which passes through the middle of Metropolitan Toronto. The 'Lake Ontario Zone' is the more southerly, and has no conservation areas lying within it. Most of the municipal park systems in the region, however, lie in this zone. All the conservation areas lie in the 'South Slopes Zone' to the north.

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[1]D. F. Putnam and L. J. Chapman, "The Climate of Southern Ontario," Scientific Agriculture, Vol. XVIII, No. 8, April, 1938.

The temperature and precipitation characteristics of each zone are indicated in Tables 14 and 15. In both zones the freeze-thaw characteristics render winter outdoor recreation activities risky, but less so in the South Slopes region which has a lower average Winter temperature.

TABLE 14.--Average seasonal temperature and precipitation in the Lake Ontario Shore climatic zone

| Season | Average Temperature | Average Precipitation |
|---|---|---|
| Winter | 24° F | 7.77 inches |
| Spring | 42° F | 7.97 inches |
| Summer | 66° F | 8.35 inches |
| Fall | 48° F | 8.09 inches |

Source: D. W. Hoffman and N. R. Richards, Soil Survey of York County, Ontario Agricultural College and the Ontario Department of Agriculture, Guelph, Ontario, 1955, pp. 18-19.

Table 15.--Average seasonal temperature and precipitation in the South Slopes climatic zone

| Season | Average Temperature | Average Precipitation |
|---|---|---|
| Winter | 19° F | 5.16 inches |
| Spring | 40° F | 6.66 inches |
| Summer | 66° F | 9.06 inches |
| Fall | 47° F | 7.45 inches |

Source: Same as Table 14.

Also in the South Slopes zone a higher summer precipitation will be noted. Summer rains in this zone often come in the form of convectional storms, which gather and dissipate quickly.

The effects of such storms for capability are two-fold: (1) visitors in the area remain until the storm has passed, and then continue their activities on wet ground, thus accelerating deterioration, and (2) if the storms occur early in the day visitors are discouraged from visiting the areas.

Finally space is a physical characteristic which should be considered. The most important effect of space, is an aesthetic experience, which strikes a sharp contrast with the urban areas from which many visitors come. Much of the appeal of the conservation areas depends on the feeling of spaciousness which they create.

## Correlation

If a knowledge of the factors affecting the capability of conservation areas is to be useful, it is necessary to investigate the combinations in which they can occur, in order that they may be judged suitable or unsuitable for specified uses.

In order to make the problem workable, the non-physical factors, with one exception will be assumed to be fixed. The land types which will be considered then, are those which have previously been described as being common to conservation areas, and which are permitted for acquisition within the spirit of the Conservation Authorities Act. In the same manner the authority's policy of maintaining the

natural atmosphere where possible will be assumed to be fixed. The recreation uses which will be specified, will be as suggested previously, picnicking and its allied activities, and hunting.

The exception which will be made to the fixed factors, concerns a concept which has been basic throughout this study. Recreation uses have been thought of as a secondary to 'conservation' uses. Without undermining the integrity of the authority, there should be provision for decision making in 'favour' of recreation uses where land displays superior qualities for such, in instances where recreation use is in competition with other uses. No formula for such decisions is necessary, but they should be arrived at prudently. Since "parks and other recreation uses" are stated as permissible uses in the Conservation Authorities Act, this exception should not be thought of as untoward.

The problem of correlation lies with the physical characteristics of conservation area land. Figure X shows in diagramatic form the soil classification used by the Soil Conservation Service for recreation uses. Adjustments have been made to coincide with soil classifications used in Ontario County Soil Reports.

Picnic Areas

Using Figure X in combination with the concept that capability can be graded according to soil characteristics, the following suggested carrying capacities have been

Figure X: Soil characteristics graded for recreation capability, on the basis of drainage and materials. Characteristics are based on those used by the Soil Conservation Service. (reference is noted in the text)

| Drainage \ Soil materials | Sandy loam | Loam | Silt loam | Silt clay loam | Clay loam | Alluvial | Gley | Muck |
|---|---|---|---|---|---|---|---|---|
| good | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| imperfect | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| poor | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| excessive | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |

derived,[1] and are shown in Table 16.

TABLE 16.--Carrying capacity of picnic areas, based on soil capability, (Figure X)

| Class | Refers to Squares in Figure X | Estimated Carrying Capacity (persons per acre) |
|---|---|---|
| A | 1 | 40-44 |
| B | 2,3,9 | 30-39 |
| C | 4,5,10,11 | 15-29 |
| D | 6,12,13 | 10-14 |
| E | 7,8,13-32 | unsuitable |

In addition to the factors listed in the table, slope must be considered. For slopes 0-5 percent the capacities as shown are suitable. Beyond 5 percent slope carrying capacities should be reduced by 10 persons per acre every 4 percent increase in slope up to 12 percent beyond which is unsuitable.

A sporadic deciduous tree cover is desirable for the picnic area itself, with a woodland background.

This classification is designed primarily for small group (family) picnic areas. For large group picnics, only

[1]Cleveland Regional Planning Commission, New Gems For the Emerald Necklace, Cleveland, Ohio, 1961, p. 19. This study determined carrying capacity to be maximum 44 persons per acre, and graded down to 10 persons per acre, depending on physical characteristics. This approach has been adapted here.

classes A and B with a slope up to 5 percent should be considered. A maximum of 200 persons per acre is recommended for such areas.[1] Open areas for games are required.

In both types of areas vehicle storage is required. For family picnic areas, one space per unit is recommended, for group picnic areas one space for every four people.[2]

Swimming is often found in combination with picnicking, thus where the two are to occur together, suitable conditions for both picnicking and swimming are required. The California Public Outdoor Recreation Plan employs the concept of 'effective feet' in describing the requirements for picnicking and swimming in combination. One effective foot consists of 1' of shoreline projected 100' into the water for swimming area, plus 200' of beach for sunbathing, 100' buffer strip for utilities and picnicking, and 225' for parking. Ten effective feet will provide space for 20 people at one time.[3] This standard creates densities in excess of those given in previous paragraphs, but this may be necessary to make effective use of the beach available, and should be considered a minimum land standard. In such instances appropriate management practices will be necessary in order to increase capability.

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[1]California Public Outdoor Recreation Plan Committee, California Public Outdoor Recreation Plan, Sacramento, Calif., 1960, p. 38.

[2]Ibid.

[3]Ibid., p. 48.

The same capability ratings which applied in Table 16 to picnicking, can apply to camping. Two types of camping are recognized vacation camping, and short term en route camping each of which require different combinations of physical factors. Since the nature of the demand for camping is unknown, no qualification of capability for each of these types is possible.

For all the uses discussed so far, a supply of water for 'domestic purposes' is required. In most cases water for drinking purposes will be dependent upon ground water supply. For washroom purposes water may also be required, and may be available from sources other than ground water. No picnicking, swimming or camping area should be developed beyond the limits of the water supply that can feasibly be made available for 'domestic' use.

Hunting Areas

The major limiting factor for the capability of a hunting area is space. Under normal conditions small game[1] will be available even in relatively small areas, but space is required for safety, and noise nuisance reasons. The quality of the hunting area apart from space will obviously be dependent upon the habitat conditions of the area. These can be improved through management. Referring back to Figure XI and Table 16, it will be noted that the soil and

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[1]This is the only type of hunting thought feasible for the Metropolitan Toronto Region.

topographic characteristics judged unsuitable for picnicking, (squares 13-32) may be suitable for an extensive use such as hunting, where trafficability is a minor consideration.[1] Land with these characteristics, in addition to land with characteristics 1-12 in Figure X, which by reason of location is not suitable for picnicking,may be suitable for hunting. Such land should be available in blocks of at least 500 acres, and hunting would be managed on a put and take basis.[2] Management would also include improvement. Management practices, and safety factors would determine the capability of hunting areas, which has been estimated at 0.5 hunters per acre.

Table 17 brings together much of the material that has been discussed in this chapter. An examination of the table will show that of the eight major land types common to conservation areas, only three show significant potential for picnicking and its allied activities. A fourth can be added depending upon the type of land surrounding 'lakes.' On the land types designated as potentially suitable for picnic areas, a range from high to low (A to D) capability is apt to be found. Type 8, buffer area, is the most 'elastic' and can be considered as having a high potential for picnicking. The major conservation use of buffer land is

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[1]The small game hunting season in southern Ontario (September 1 to February 28) allows sufficient recovery period.

[2]Opinion of M.G. Johnston, Administrator, Conservation Services Division, Metropolitan Toronto and Region Conservation Authority.

TABLE 17.--Correlation of land types, recreation uses, management practices, and conservation uses. Land types are as described in Table 1

| Land Type | Possible Suitability Picnic Area (Table 16) | Other Recreation Uses[1] | Required Management* | Possible Conservation Uses |
|---|---|---|---|---|
| Flood Plain | A,B,C,D | Nature Trail, Beach | | Protection Water Flowage |
| Valley Slopes | D | Snow Play Nature Trail | | Protection Reforestation Woodlot management |
| Source Area | D | Nature Trail Hunting* Snow Play | Put & Take Habitat Improvement | Protection Reforestation Woodlot management |
| Wet Lands | E | Nature Trail Hunting* | Put & Take Habitat Improvement | Protection |
| Demonstration | C,D,E | Snow Play | | Agriculture Reforestation Woodlot management |
| Lakes | E | Boating Fishing* Skating Swimming | Stocking | Protection Fish management |
| Reservoir | A,B,C,D[2] | Boating Fishing* Skating Swimming | Stocking | Water Storage |
| Buffer | A,B,C,D | Hunting* Snow Play Nature Trail | Put & Take Habitat Improvement | Protection Woodlot management Reforestation |

[1]All types suitable for hiking and sight seeing.

[2]Where swimming and picnicking occur together, turf management will likely be necessary.

the protection of the interior of areas from surrounding development outside the conservation area. If the buffer area is adequate it can serve important recreation uses.

Where other recreation uses are listed together with areas with high picnicking potential, and where they would normally occur in the same season as picnicking, they can be considered allied recreation uses occurring together with picnicking. In instances where a decision is made to replace picnicking with camping, the other uses would be considered allied with camping. Generally picnicking and camping as core uses should be spacially separated. Where picnicking is rated low, the other suggested recreation uses would be dominant.

Management practises are suggested for some recreation uses, and in such cases, deviation from the natural atmosphere principle is considered necessary.

Except in the reservoir, and buffer land types, there is no real conflict between recreation uses, and conservation uses. It is in these exceptions where superior recreation opportunities may occur, and should be given consideration for taking precedence over conservation uses. As an example reforestation, or woodlot management may destroy a buffer area aesthetically for recreation use. Such practices should be restrained to the minimum necessary to do the conservation job. In reservoir areas in which a constant pool is to be maintained, the depth of permanent water will determine the

suitability of the reservoir for swimming, boating, and fishing. If suitability for these uses can be improved by raising the permanent level, the same should be considered in light of the seriousness of loss in water storage capacity.

# CHAPTER VII

## THE VALUE OF RECREATION IN CONSERVATION AREAS

The value of recreation is a concept which escapes precise definition, yet is becoming increasingly more important as a factor in the justification for establishing public recreational areas. The lack of precision in defining recreation value is due to the wide variety of purposes for which the concept of recreation value is used. In the economic sense, recreation value is usually thought of as measurable in terms of dollars and cents. In the quality sense, recreation value is thought of in terms of a measure of ability to produce user satisfactions. Until recently these have been thought of as distinctly separate measures of value. The investigations of Marion Clawson, using the demand curve approach, have merged these two concepts of recreation value, on the premise that user satisfaction will be reflected in the price that users are willing to pay, in order to obtain recreation experiences.[1]

### Economic Values

Several methods have been proposed and employed in

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[1]Marion Clawson, Methods of Measuring the Demand For and Value of Outdoor Recreation, Paper presented at meeting of the Taylor-Hibbard Club, University of Wisconsin, Madison, Wisconsin, January 13, 1959, p. 13.

attempts to measure recreation benefits in terms of dollars and cents. These fall into the group which can be thought of as comprising recreation value in its economic sense. The purposes for which values of this type are to be used, to a large extent determine the method by which they are derived. These methods usually fall into one of three classes: comparative, replacement cost, and economic effect.

Comparative

The comparative method was used by the authority in the cost-benefit study included in the Plan for Flood Control and Water Conservation.[1] In this study a value of $1,050 per acre of land used for recreation, was included in the benefits to accrue as a result of implementation of the plan. This figure was obtained by comparing the conservation areas with local commercial parks, and assigning a value of 75¢ per visitor, per day, on the basis that this was the average amount paid in commercial parks. Heart Lake conservation area was selected as a model, and it was estimated that this area could accommodate 100,000 visitors annually. An annual net market of $1,050 per acre was calculated by multiplying 100,000 visitor days by $0.75; subtracting $22,000 depreciation and operating costs; and dividing the result by 50, the number of acres in the developed recreation area. This method provides a crude measure of the value of public recreation

[1]Metropolitan Toronto and Region Conservation Authority, Plan For Flood Control and Water Conservation, Woodbridge, Ontario, 1959, p. 104.

areas, but is limited by the great differences which are to be found among private commercial recreation areas themselves, and the lack of similarities between private commercial areas and public recreation areas. Since the experiences which each of these areas offer, vary widely, their value is not truly comparable.

Replacement Cost

This method assumes that the recreation value of a park area is at least equal to the cost of providing the facility. This approach is useful as an inventory, and is not unlike the replacement cost approach used in real estate appraisal. Such a value, however, tells very little of the facility's value to users, rather it indicates what the agency providing the facility determined the value to be.

Economic Effect

A third method of measuring recreational values involves the assignment of separate values to primary and secondary benefits: the primary benefits being those realized at the recreation site, and the secondary benefits being those which accrue to businesses as a result of personal spending in pursuit of the recreational experience.[1] In a paper in Land Economics, "Measurement of Recreation Benefits," Trice and Wood claim that the primary benefits are, "personal and varied, not readily measureable in dollar terms,"

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[1]E.M. Trice and S.E. Wood, "Measurement of Recreation Benefits," Land Economics, Vol. XXXVI, No. 3, August, 1958.

whereas, "dollars spent in pursuit of recreation appear to be more significant as indicators of secondary benefits."[1] This approach has often been used to measure the effect of a large park as a stimulus to the economic life of the area in which it is located. The primary benefits are assigned "philosophical" values, while the secondary benefits are assigned dollar values, which are measures of visitor spending en route to and from, and while in the park. On occasion the secondary benefits are expanded to include purchases of recreation equipment made in the home locale of the visitor. This method has been used by the National Park Service[2] in arriving at a value of $1.60 per visitor day for a national average of all recreation use. Used as a measure of economic stimulus this method may be useful, but as a measure of the value of a recreation resource for the users, it is inadequate, since it includes costs incurred for purchases other than the basic recreation experience afforded by the parks.

## Quality Values

The measurement of recreation value in its quality sense, or the ability of a recreation area to produce user satisfactions, involves the measurement of what have been

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[1] Ibid., p. 197.

[2] Method of Evaluating Recreation Benefits of Water-Control Projects, National Park Service, Branch of Recreational Surveys, August, 1957.

termed intangible values.

> It is generally recognized that investigations in this area of study are lacking. In fact no comprehensive methodology has been proposed for measuring intangible recreation benefits.[1]

In the absence of tested methods for this type of investigation, a symptomatic approach will be used here. The premise for such an investigation is that symptoms of a recreation program's value in a community can be isolated and stated. Some of these have already been discovered in foregoing chapters. In general the symptoms which have been selected can be recognized in answers to the following questions.

1) Who is the program serving as evidenced by who uses the facilities?
2) What experience quests does the program satisfy?
3) What observable negative values are evident?

Who Uses the Conservation Areas?

In Chapter IV, it was found that there is an apparent relationship between the distance which visitors must travel to a conservation area, and the number of visitors per thousand population which might be expected in the area. It was found that proximity usually was reflected in a higher number of visitors per thousand population. On this basis then, those living closest to the conservation areas (within the

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[1]National Advisory Council on Regional Recreation Planning, A User-Resource Recreation Planning Method, California, 1959, p. 53.

0-15 mile return zone) derive the most benefit in terms of frequent use of the facilities. There is another aspect of this matter, however, that should be investigated in order to determine who uses conservation areas. By analyzing the 1959 survey data on the basis of percentage of visitors to the areas from each municipality Table 18 was derived. On a straight percentage basis it will be seen that visitors from Metropolitan Toronto comprise from 60-86 percent of the total visitation in the areas. The city of Toronto and the Townships of North York, Etobicoke and Scarborough, account for the greatest number of Metropolitan Toronto visitors. In terms of volume then, it is people from urban areas who are the major users of the conservation areas.

A further breakdown of attendance at the areas revealed that the average number of persons per car was as shown in Table 19. These figures for each area strongly indicate that a great number of family groups use the areas.

Finally in this regard it was interesting to note that only 4.1 percent of the respondents to the 1959 questionnaire, owned a summer cottage.

What Experience Quests does the Program Satisfy?

Inherent in this question is the assumption that the experiences in conservation areas are satisfying. This assumption is based on two symptoms. The first of these is the increase in attendance over the years which the conservation areas have been operating. Some qualification here is

TABLE 18.--Percent visitors to five conservation areas from selected municipalities

| Municipality | Conservation Area Percent Visitors | | | | |
|---|---|---|---|---|---|
| | Heart Lake | Glen Haffy | Albion | Boyd | Greenwood |
| Toronto* | 20 | 13 | 34 | 23 | 13 |
| Etobicoke* | 17 | 16 | 15 | 12 | 0.2 |
| Swansea* | 0.3 | 1 | 1 | 0.5 | |
| Scarborough* | 4 | 8 | 1 | 4 | 30 |
| North York* | 15 | 11 | 14 | 24 | 10 |
| York* | 6 | 6 | 3 | 7 | 2 |
| East York* | 1 | 3 | 2 | 3 | 8 |
| Weston* | 2 | 1 | 6 | 5 | 0.8 |
| Richmond Hill | 0.6 | | | 1 | 0.8 |
| Brampton | 4 | 4 | | | |
| Toronto-Gore | 0.3 | | 0.5 | | 0.2 |
| Toronto Twp. | 6 | 8 | | | |
| Vaughan | 0.7 | 3 | 0.5 | 5 | |
| Albion | 0.3 | 4 | 5 | 0.9 | |
| King | 0.3 | 1 | 1 | 0.5 | 3 |
| Chinguacousy | 0.5 | 2 | 2 | | |
| Pickering Twp. | | 2 | | | 2 |
| Pickering Village | | | | | 11 |
| Markham Twp. | | | | | 8 |
| Outside Region | 14 | 16 | 14 | 4 | 4 |
| Outside Province | 2 | 1 | . | 0.6 | 0.4 |
| Metro Toronto | 72 | 60 | 79 | 86 | 67 |

*Member municipalities of Metropolitan Toronto.

necessary. From 1956 to 1958 significant additions were made to the number of areas available to the public, and increases

in attendance can be directly related to increased facilities. From 1959 to 1961 facilities were increased and improved to some degree, but increases in attendance can largely be attributed to increased 'popularity'. Variations in weather from year to year also have a telling influence on the total visitation for each year.

TABLE 19.--Average number of persons per car, 1959

| | Heart Lake | Glen Haffy | Albion | Boyd | Greenwood |
|---|---|---|---|---|---|
| Adults | 2.7 | 2.5 | 2.7 | 2.9 | 3 |
| Children (under 10) | 1.7 | 1.4 | 1.5 | 1.8 | 2 |

Table 20 illustrates the increase in conservation area attendance for the years 1956 to 1961.

TABLE 20.--Attendance at conservation areas 1956 to 1961

| Year | Number of Visitors |
|---|---|
| 1956 | 20,000 |
| 1957 | 126,000 |
| 1958 | 350,000 |
| 1959 | 640,000 |
| 1960 | 780,000 |
| 1961 | 860,000 |

Source: G. Ross Lord, Metropolitan Toronto and Region Conservation Authority, Report of the Chairman to the Annual Meeting, 1962, p. 11.

The second symptom is related to the way in which visitors learned about conservation areas. This question was asked in the 1959 survey, and the results are tabulated in Table 21.

TABLE 21.--How visitors learned about conservation areas (%)

| | |
|---|---|
| Brochure | 9 |
| Radio | 6.4 |
| Road Signs | 10.4 |
| Newspaper | 19.2 |
| Other | 50 |

Over half the visitors claimed they learned about conservation areas by means other than those suggested. This indicates that 'word of mouth' was probably responsible, indeed many visitors so stated on the questionnaire form. The newspaper was listed as the next most common means of learning about conservation areas. This was a little surprising since the authority had bought little advertising in 1959. The program, however, received good coverage in the news and editorial columns. These responses indicate that the conservation area program is in good favor with the community at large, and are taken to reflect the satisfaction which the areas are giving.

It was noted in Chapter 5 that the majority of

experiences offered in conservation areas fall into the aesthetic, physical, and emotional classifications, although it was also noted in Chapter III that some activities in conservation areas fall into the educational and intellectual classes. It has been shown why these experiences are thought to be satisfying.

What Observable Negative Values are Present?

Chapter III illustrated the severe fluctuations in conservation area use, with peak usage occurring on summer Sunday afternoons. On such days there can be no doubt that overcrowding occurs. In some areas (Boyd and Heart Lake), when in the opinion of the superintendant the situation has become intolerable, the gates to the area are closed. Such crowding has two observable negative effects; it leads to the more rapid deterioration of the area reducing its attractiveness for future visitors, and it has been suggested that overcrowding itself reduces visitor enjoyment and will eventually induce visitors to turn elsewhere for their recreation, and perhaps to another form of recreation.[1]

This approach to the value of recreation in conservation areas has not attempted to be definitive; it is evident, however, that the recreation program has been accepted and appreciated, which is symptomatic of its appropriateness and value.

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[1]Raleigh Barlow, Lecture to R.D. 443, Michigan State University, Fall, 1961.

## Economic and Quality Values

The demand curve approach of Marion Clawson, combines the economic and quality concepts of recreation value.

> In practice, people use outdoor recreation opportunities to the extent to which they believe their satisfactions are exactly equal to the total cost involved.[1]

In formulating his method, Clawson draws on the demand theory, proposed by Marshall.[2] In the economic sense the demand curve for a recreation area schematically depicts the number of buyers willing to 'purchase' the recreation experiences it offers at various prices. In theory the number of 'buyers' increases as the cost decreases. In the quality sense the curve depicts the number of buyers entering the market (marginal users) as the price drops to equal the value of the satisfactions they believe they will receive in visiting the recreation area.

A part of the price or cost to the user of a recreation area is directly related to the distance which they must travel to reach the area, in addition to any charges which may be made to enter the area. If a per mile cost is assigned to travelling, this cost is measurable. Other costs which are involved are not so easily measurable. Time is important among these.

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[1]Marion Clawson, "Methods of Measuring the Demand for and Value of Outdoor Recreation," Paper presented at meeting of the Taylor-Hibbard Club, University of Wisconsin, Madison, Wisconsin, January 13, 1959, p. 12.

[2]Alfred Marshall, Principles of Economics, (London: MacMillan and Co., 1891), pp. 181-195.

Using the demand curve approach requires several major assumptions:[1]

1) The incomes, means of travel, and tastes in outdoor recreation of the people in the tributary area are constant.
2) The sole purpose of the trip is to achieve recreation experiences at the area.
3) The amount spent by the user is small enough that he can disregard how large a portion of his total funds he has spent.
4) The type of recreation which the user is seeking is a scarce item, rather than an economic 'free good.'

The demand curves in Figure IX, are based only on distance, but could be converted to represent costs, if travel and time costs were known. As such they would represent the total recreation experience afforded by each conservation area.[2]

The significance of the demand curve approach is that it enables the analyst to estimate the value of a recreation resource in terms of what visitors are willing to pay to receive the satisfactions they expect the experience will afford. Such a value can be attributed to the resource, and is independent of acquisition and development costs.

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[1]Clawson, op. cit., pp. 9, 10, and 18.

[2]Ibid., p. 13.

# CHAPTER VIII

## THE RECREATION ROLE OF CONSERVATION AREAS IN THE METROPOLITAN TORONTO REGION

On the basis of the preceding discussions, some aspects of the role of conservation areas in the Metropolitan Toronto Region emerge. At the recent Canadian Resources for the Future conference, there was great emphasis in the recreation workshops, concerning the need for defining the responsibilities of the various agencies at different levels of government for providing recreation opportunities. There is in this, the danger of not recognizing the unique conditions existing in various areas throughout the country, and that the responsibilities of similar agencies in different areas should be tailored to the specific needs and conditions in each area. The role found appropriate for conservation areas in the Metropolitan Toronto Region may be entirely inappropriate elsewhere. Government should be cognizant of the varying conditions to which the legislation it enacts and administers, must apply, and design its decisions accordingly.

Recognizing that the role of the conservation areas would be unique to the Metropolitan Toronto Region, this thesis was based on the premise that, permissive legislation, the magnitude and nature of the demand for outdoor recreation,

the services provided by other park agencies in the same area, the physical capability of the lands available, and the tax base, would be determinative factors. Having examined the nature of each of these factors in the Metropolitan Toronto Region the role of conservation areas takes shape.

The Conservation Authorities Act determines that the primary function of authorities is to be a vehicle whereby member municipalities can act together to accomplish conservation work, which singly could not be accomplished, and which will yield benefits to all participants. Conservation areas are a part of this work, and by their nature yield benefits to all participating municipalities. The investigation of the demand for and value of conservation areas bore this out. The financial inability of many municipalities to provide their own conservation areas, has very little relation to the necessity for joint action. Demand for conservation areas is closely related to their inherent physical characteristics and their location, the combination of which produce the experiences they yield. Aesthetic experience was noted to be common to most conservation area recreation activities, and it was concluded that there was as much value in the setting which conservation areas provided for recreation activities, as there was in the activity itself. The rural nature of a conservation area is enhanced by its physical removal from urban landscapes. These characteristics which identify conservation areas are not to be found within urban

areas, yet their existance yields benefits to urban communities. Thus, the desirability of joint action in developing conservation areas.

From time to time the authority is faced with the argument that the conservation area program benefits only the metropolitan municipalities, and is of very little value to rural municipalities, and does not warrant their support. The demand studies belied this argument, and indicated that on the basis of visitors per thousand population conservation areas are also in demand by local populations. Through sheer numbers of people, metropolitan areas contribute a much greater number of visitors, but by the same token financial support to the authority is on a population basis and rural levies are minute compared to urban levies.

The role of conservation areas for rural municipalities is connected with the physical characteristics of the land, as it was for urban municipalities. In the first instance the program sets aside and preserves large tracts of land which are a part of the rural landscape, valued as much by rural people as by urban people. It was indicated that to some degree conservation areas compensate for a lack of recreation facilities in rural municipalities. A great potential of conservation areas for rural populations is the provision of hunting and fishing areas. The influence of increasing urbanization in rural areas, and the increase of rural non-farm dwellings has increased the loss of good

fishing sites, and the posting of land against hunting. Studies carried out by the Ontario Agricultural College showed that farm families in southern Ontario spent considerable time hunting and fishing. The provision of areas for these purposes can be expected to be of as much value to rural communities as to urban communities.

Cast in the role of serving several municipalities, and being a facility where the natural atmosphere is of importance, there is an obligation for conservation areas to provide recreational opportunities appropriate to this role. In determining what types of recreation should be provided for in conservation areas, this obligation should be given primary consideration. Decision making in this regard is subjective, and relies very heavily on the skill and understanding of the policy making group within the authority. Some guidelines, however, have been provided by the investigations of previous chapters.

## Demand

There is in the Metropolitan Toronto Region a demand for recreation activities in which aesthetic experience may be found in combination with physical exercise, emotional, educational, intellectual and social experiences. This demand has been realized in the present conservation areas program and can be expected to continue and increase. The satisfaction of the quest for this type of experience can be found in

activities such as picnicking, swimming, hiking, nature interpretation, hunting, fishing, boating, and snow play. Picnicking often occurs in combination with most of these activities. The peak demand for these activities occurs on summer weekends. The majority of visitors spend from three to four hours in the areas and travel up to 45 return miles. Beyond the 45 return mile limit, visitation per thousand population drops off sharply. Families are the major group using conservation areas. Activities of the type noted above are appropriate to the family day use which characterizes the demand, and the role in which conservation areas are cast.

To a considerable extent the facilities and programs offered by municipal park and recreation agencies have helped shape the demand for conservation areas. Municipal services are for the most part, facilities and organized program oriented, and do not provide the setting for planned junkets and their attendant experiences. The policy of the Department of Lands and Forests to not locate areas within one or two hours driving time of large metropolitan areas in southern Ontario, together with the orientation of municipal park programs, leaves a gap both in service and geographically, which the conservation areas fill.

## Capability

The discussion of capability tempers the role of conservation areas somewhat, in that it was discovered there

were limitations from within, land available, and conflicts with other uses which the authority is obliged to consider. Critics of the conservation area program have not failed to recognize this.

> Enthusiasm for this attack on the problem of overcoming park land scarcity must not blind us to the fact that it is a lefthanded way of promoting recreation.[1]

It is not sufficient to counter that doing the job 'left handed' is better than not doing it at all. The point to uncover is how 'left handed' is the conservation area approach to regional recreation in the Metropolitan Toronto Region.

The investigation of capability revealed that in terms of inherent physical characteristics, conservation area land has the scenic qualities necessary for the type of recreation they afford. By the very nature of its purpose the conservation authority is a qualified manager for such lands. Their development and operation is in the hands of the municipalities which benefit by their existance, and the integrity of their use is assured by the spirit of the Conservation Authorities Act. The ability of the conservation areas to accommodate the recreation uses for which their landscapes are suited varies, but when such uses remain consistent with the suggested carrying capacities in Chapter

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[1]Eric Hardy and Frank J. McGilley, The Heirarchy of Government and Public Agencies in Park Development, Background paper Canadian Resources for the Future Conference, 1961, p. 1042.

six, their application to the land will not only be in line with the purpose of the authority, the satisfaction they yield will be enhanced. To fulfill its recreational role, however, the authority should adjust the other uses which its land must serve in favor of recreation as was indicated, where such action is appropriate.

It is when the conservation areas are cast in a larger, or different recreational role in the Metropolitan Toronto Region, that this attack on park land scarcity becomes 'left handed.' Such a role may include the provision of municipal recreation facilities within conservation areas, or the provision of land for municipal recreation use. It was seen in Chapter IV that there is a great deal of permissive legislation, and financial assistance available from the Ontario government to municipalities for their individual park and recreation programs. A relaxation of the conditions under which grants will be paid through the Parks Assistance Act, would make this spectrum of legislation even more useful to municipalities. Notwithstanding the limitations of the Parks Assistance Act, there is enough assistance available to municipalities to render it unnecessary, and undesirable, for the Conservation Authorities Act to be used as a vehicle by which individual municipalities receive recreation aid. Such use of the Act consumes government appropriations which could be funnelled into the regular conservation areas program, and gives to conservation areas an urban aspect that

may weaken their natural appeal, which is their strength.

An obvious exception to this view is the agreement with the municipality of Metropolitan Toronto, by which the Metropolitan Parks Department develops and administers authority owned lands, within Metropolitan Toronto. These lands are not physically removed from the urban scene, and are, in fact, a part of it. As such, they do not constitute conservation areas. The stated policy of the Metropolitan Parks Department is to develop these lands where possible, in keeping with the objectives of conservation areas. The Metropolitan Toronto Parks Department is not limited to the lands which are leased it by the authority. Also, under the municipal act, Metropolitan Toronto is permitted to acquire lands for park purposes in adjacent municipalities. While the role of metropolitan parks is not the subject of this study, there appears the opportunity for the Metropolitan Toronto Parks Department to develop regional parks of a type not appropriate in conservation areas. Amusement parks, golf courses and the like, are examples of projects that have been undertaken.

## Implications of Financing

In most of its projects the authority has the Ontario government as a partner. Government grants are made available primarily to give impetus to conservation work, and thus apply only to development and administrative costs. No assistance

is available for the greater long term costs of maintenance and operation. Nonetheless Provincial grants to the authority give the Provincial government a vested interest in authority projects including conservation areas. At the request of the Provincial government, the authority has agreed to include in its recreation program, facilities for overnight camping. In the capability study it was seen that overnight camp grounds require physical characteristics similar to picnic areas, and the activities associated with picnicking can also be associated with camping. In terms of physical capability, camping is appropriate to conservation areas. Municipal park agencies do not provide facilities for overnight camping, and Provincial Parks, which are the major provincial camp grounds, are not located within the Metropolitan Toronto region. In all aspects but demand, overnight camping can be considered a use appropriate to conservation areas. The nature of the demand is unknown, although camp grounds in conservation areas are more likely to serve an en route or short term function, than a vacation function. Demand for camping facilities may be as much or greater from without the region as within. If this were to be the case an extra-regional function would be served. Due to the Province's vested interest in conservation areas, such a function would not be entirely inappropriate.

In providing conservation areas, member municipalities contribute to the authorities according to the number of their population living within the watersheds. The total costs of

maintenance and operations must be met by the authority. Approximately 80 percent of these costs are derived from operating revenues, primarily a 50¢ parking charge. The remaining 20 percent is raised through the municipal levy. This arrangement is the result of an authority decision that those who actually use the conservation areas should bear the major portion of the cost of their upkeep.

## Other Conservation Uses

Since conservation area land serves a dual purpose, an opportunity to relate the whole work of conservation to recreation is afforded. This relationship is primarily found in educational experience. The land which visitors use for recreation purposes, serves other conservation functions, and by interpreting these to the visitors, recreation is served through educational experience. Interpretation can go beyond the nature trail, and include the entire area. This is one of the ways in which public understanding of conservation work can be achieved.

## The Future

The study of demand indicated that the trend in urban growth in the next twenty years will be outwards from the present metropolitan city, into a fringe zone that is now largely rural. This was recognized as a trend which would change the rural setting of the southernmost conservation

areas. In the case of the existing situation in Metropolitan Toronto, authority owned lands were described as not truly conservation areas because of their urban setting. There can be no doubt but that the southernmost conservation areas, in a now rural setting will lose some of their natural appeal as they are approached by an expanding city. The preservation of the natural integrity of these southern areas presents a challenge similar to that which has been met by the Cook County Forest Preserve in Chicago. By acquiring adequate buffer lands, and resisting the encouragement of urban uses on its lands, this agency has maintained the image of remoteness from the urban scene.

> There have come urgent petitions from organizations for the severence of Forest Preserve lands for public purposes such as schools, federal laboratories, parks, playgrounds, parking lots, armories, pumping stations, and sewage treatment works. Faced with a dilema, the municipalities ill advisedly turn to adjacent Forest Preserve property for a solution, regarding it a reservoir of 'unused' land from which can be carved such portions as required for their purposes.
>
> . . . Should the Board release lands indiscriminately to other public bodies, it would only serve to mutilate and gerrymander what is a fine and precious thing.[1]

If conservation areas are to continue to serve as conservation areas, they must be strictly guarded against the inroads of encroachment.

The responsibilities which accrue to the Metropolitan Toronto and Region Conservation Authority, as a result of the

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[1]Forest Preserve District Cook County, Illinois, Revised Report of Advisory Committee to the Cook County Forest Preserve Commissioners, River Forest, Illinois, 1959, p. 11.

role which has been found appropriate for the conservation areas, can be expressed in a policy statement. The following are proposed policies, by which the development and operation of conservation areas might be guided, based on the findings of this study.

Purpose

The purpose of conservation areas shall be to make available for the healthful enjoyment of the people in the Metropolitan Toronto Region, lands which have been acquired in connection with conservation schemes by the Metropolitan Toronto and Region Conservation Authority. Whereas lands so acquired serve the objectives of the Authority, and are characterized by natural landscape qualities, it shall further be the purpose of conservation areas to interpret the objectives of the Authority to the public, and to maintain for all time the landscapes by which they are characterized.

Land Acquisition

It shall be the policy of the authority to acquire lands for conservation purposes where such is deemed necessary for the successful accomplishment of schemes undertaken, and where such lands are suitable for recreation uses, they shall be so used. It shall further be the policy of the authority to acquire lands as a part of its schemes which by virtue of their location and extent, will afford adequate protection to conservation areas from surrounding development which would be detrimental to their character and purpose.

It shall further be the policy of the authority that where land is to be acquired, or used for conservation area purposes, it shall comprise a contiguous block of not less than 200 acres.

Development

The development of conservation areas shall be consistent with their purposes. Provision for recreational activities which are appropriate to conservation area landscapes shall be made according to the principle that the experiences provided by such activities derive as much value from the landscape in which they are set as they do from the activities themselves. Sites within conservation areas which are selected for recreation use, shall not be developed to the detriment of the conservation purposes which they must serve, and shall have as the primary criteria for selection, their physical capability of accommodating the recreation use(s) for which they are to be developed. In general the development of conservation areas shall be to achieve the conservation purposes for which the land was acquired, and to give access and protection to appropriate sites for public recreation use. In developing conservation areas the authority shall consider the nature of the demand for the recreation experiences they are capable of providing, and satisfy the demand insofar as it is capable of so doing.

Facilities

Only those facilities required for the safety, convenience, and education of the public shall be provided. The facilities which are required in conservation areas shall be designed to efficiently perform the function for which they are provided, and where possible shall be in harmony with the landscape and the use, of the site in which they are located. No facilities for the exclusive use of private groups, public or semi-public organizations, or individual municipalities shall be provided.

Regulations

The recreational use of conservation areas shall be regulated in order that:

1) The flora and fauna may be protected.
2) The safety of the visitors may be assured.
3) The sites made available for recreation are not used beyond their capability.

All use of conservation areas shall be consistent with their purposes.

This study was undertaken for the purpose of developing guidelines by which policies for the development and operation of conservation areas may be determined. Not all of the factors pertinent to such policies have been considered but those which have been discussed are considered by the writer to be of great importance to the rational guiding of policy. It was not the intent of the study to state with

finality what the recreation policy of the Metropolitan Toronto and Region Conservation Authority should be. Policy is never static, it must evolve, with the attainment of a greater understanding of the problems with which the administrating agency must come to grips.

This study showed clearly, that a lack of information seriously limits the understanding of demand, value, and capability in conservation areas. Recognizing this lack, it may be hoped that further study in the methods of collection and analysis of data will be undertaken, in order that present knowledge may be sharpened, to provide policy makers with a sounder basis for positive direction of the recreation program. The investigations of this study then, are a starting point which must be built upon if the authority is to achieve a recreation program which will yield the maximum benefits to the region which it serves.

# APPENDIX I

Metropolitan Toronto and Region Conservation Authority
Conservation Area Users Survey, 1959

In order to improve the Conservation Areas for your enjoyment, we require the following information about your visit. You can assist us by completing this questionnaire, and depositing it in the box provided as you leave the area.

Thank you.

1. In what municipality do you live?_____

2. How did you learn about this area?

   Authority brochure_____ Newspaper_____
   Radio_____ Other_____
   Road signs_____

3. How many adults are in your car?_____
   How many children?_____

4. What activities did you participate in while you were in the area?

   Picnicking_____ Fishing_____
   Swimming_____ Boating_____
   Nature hike_____ Business_____
   Rest & Relaxation_____ Group camping_____
   Other_____

5. What other conservation areas have you visited?

   _____ _____

   _____ _____

6. Do you use Conservation Areas for winter sports?_____

7. Approximately how much money did your family spend at the refreshment booth?_____

8. Do you own a summer cottage?_____

9. Have you any comments you wish to make concerning your visit?_____

   _____

   _____

# APPENDIX II

Michigan State University
Dept. of Resource Development
Wells Hall 'E'
East Lansing, Michigan

Park and Recreation Survey

Name of Municipality Reporting_____

Please check one:
Park Dept._____ Recreation Dept._____ Park & Rec.Dept._____

1. In what year was your department established?_____

2. Is your department directly responsible to a board or commission?_____, Municipal Council?_____

3. How is your department organized? If possible sketch an organization chart, showing the major divisions and the chains of Authority.

4. What are your sources of income? Check where applicable. Revenue from operations_____, Taxes_____, private subscription_____, Government grants_____, other (explain)_____

_____

5. What per centage of your total budget, do each of the above form? ie: grants 20%, taxes 40% etc.

_____

_____

6. From what federal and provincial government departments, and for what purposes are grants available to you.

_____

_____

_____

7. What types of park areas does your department operate?

8. Do you use lands or facilities operated by other agencies?

9. List the activities and facilities that your department provides free of charge.

10. List the activities and facilities which your department provides, for which a charge is made.

11. If you wish to comment on your departments philosophy concerning fees and charges, kindly do so on a separate sheet, and include it with this questionnaire when making your return.

12. Does your department subscribe to any standards concerning the size, type, and location of parks in your system?

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Ontario-St. Lawrence Development Commission Act

Parks Assistance Act

Planning Act

Provincial Parks Act

Public Parks Act

Wilderness Areas Act