A PRELIMINARY ASSESSMENT OF MANITOBA'S OUTDOOR RECREATIONAL NEEDS

By

J. David Etcheverry

A Thesis Submitted
In Partial Fulfillment of the
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ABSTRACT

The major purpose of this thesis is to define areas of 'need' in the province of Manitoba with regard to outdoor recreational facilities and to project the 'supply' and 'demand' for outdoor recreational facilities into the future. 'Need' is defined as the difference between the amount of a resource or facility demanded and the amount supplied. To determine the current 'need' for outdoor recreational facilities it is necessary to determine the current 'supply' and the current 'demand' for those facilities.

This study presents an inventory of facilities for various outdoor recreational activities. This study also presents current 'demand' information in the form of participation rates and the frequency of participation as determined through a telephone survey of approximately 2,000 Manitobans. Through various participation rate factors and facility standards, the participation information is transformed into the volume of resources demanded which is then compared to the volume of resources supplied thus revealing a deficit or a surplus of facilities. The surplus or deficit ('need') is then projected to the years 1990 and 2030.

This study also attempts to measure latent demand via the telephone survey but because of a poor response rate the attempt was unsuccessful. Facility adequateness is also examined through the survey along with campsite preference.

Many irregularities appear in the final 'need' figures which indicate problems with the participation rate factors and facility standards. Even with the indicated data limitations and project limitations, an order of priority of 'need' can be determined. With all factors considered, the activities of camping, golfing, and downhill skiing indicate the greatest deficits with regard to the facilities ranking first, second and third respectively on the priority list. These same activities rank fourth, eleventh, and first respectively on a priority list based on levels of registered inadequateness of facilities.

The study recommends that, (a) further work be carried out in the area of participation rates and standards, (b) the precise nature of the facility inadequacies be determined, and (c) emphasis be placed on the facilities which indicate the highest amount of deficit and the highest amount of facility inadequateness.

ACKNOWLEDGEMENTS

A Preliminary Assessment of Manitoba's Recreational Needs has been the result of a vast number of individuals responsible for supplying information for the purposes of doing an inventory of the outdoor recreational facilities in the province. I wish to acknowledge the Research and Planning staff of the Department of Natural Resources, Parks Branch who gave much direction to the project. A special thanks goes to Messrs. R. Wilson and D. Wang of the Parks Branch who contributed much of their valuable time.

I wish to gratefully acknowledge Mr. P. Spevack of the Department of Economic Development and Tourism who provided much of the expertise in the development of the computer program used to analyse the results of the questionnaire. A special thanks also goes to Mrs. J. Creamer who typed the majority of the tables and the final copy and to Miss P. Misko who typed the draft version of this thesis.

I would like to thank the respondents of the questionnaire especially those who gave added information in the form of comments. Suggestions were passed along by Dr. J. Romanowski of the University of Manitoba. Finally, I wish to acknowledge the assistance and encouragement of my wife, Emily, who had to endure many hours of preoccupation with the writing of this thesis and all that it involved.

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CHAPTER ONE

INTRODUCTION

"A Preliminary Assessment of Manitoba's Outdoor Recreational Needs" is an analysis of the relationship between recreation supply and demand as a part of the Manitoba Provincial Park Systems Plan. The study will link the participation rates in various service regions to the supply of recreation resources, and project recreation demand and supply into the future.

1. Purpose

The major purpose of this thesis is to define areas of need in the province of Manitoba with regard to outdoor recreational facilities. In order to define the need for facilities one must define the demand for the facilities and also define the existing supply of facilities. It is also the purpose of this thesis therefore to define and update the estimate of demand for and the supply of outdoor recreational facilities in the province of Manitoba.

Second to the major purpose, this study will attempt to project the supply and demand for outdoor recreational facilities into the future. The results of such a projection will, it is hoped, be used in planning future facilities.

Third, this study will also attempt to determine the 'latent' demand for outdoor recreational facilities. This will, it is hoped, give the reader an indication of the recreational preferences of Manitobans.

A fourth and minor purpose of this thesis is to determine the outdoor recreationists' view toward the adequacy of outdoor recreational facilities.

2. Scope

This study encompasses the entire province of Manitoba in regard to the supply of and the demand for outdoor recreational facilities. The study deals with the province as a whole along with rural-urban and regional breakdowns. Most of the information presented in this thesis is also available by municipality in the Appendices.

3. Sources and Methods of Collecting Data

The sources of data for this study have been many and varied. On the supply side of the study the major sources are: The 1971 Facilities Inventory as created by the Department of Tourism, Recreation and Cultural Affairs which has been updated in part to varying degrees each year since its creation; the 1979-80 Manitoba Vacation Guide published by the Government of Manitoba under the supervision of the Department of Tourism and Cultural Affairs; and various documents obtained from federal, provincial, municipal and city agencies. Much of the information thus obtained was further updated through personal contacts with people in the various agencies, and contacts with people in the field who are directly responsible for the various facilities.

The information for determining the demand for outdoor recreational facilities was obtained from a survey designed and carried out by the author for the purpose of obtaining current participation rates and frequency of participation in various outdoor recreational activities.

4. Limitations

There are two main types of limitations encountered by this project. There are data limitations and project limitations. Under the former there are data limitations associated with each of the 'demand', 'supply' and 'need' data categories. Under the project limitations there are problems associated with the primary and secondary data, the participation rates, formulae promulgating errors, survey design, defining participation (demand) and 'need', and problems in identifying levels of facility inadequateness. Each of the above limitations is discussed in detail in Chapter 5 of this thesis.

5. Background Information

To put this study into an academic perspective, it represents work done in the field of Geography under the sub-discipline of research and planning with regards to our natural resources, specifically the outdoor recreational use of land and water.

The study posed a problem in itself because little has been done to date in the area of defining the need for outdoor recreational facilities. A study entitled "The Need and Associated Benefits of Recreation in the Souris River Basin" contains the basis for much of the methodology used in this report. The above study was completed in co-operation between the Parks Branch and the Research and Data Services Branch both of the Department of Tourism, Recreation and Cultural Affairs in March of 1978. This study represents only a portion of the Souris River Basin Study. The Souris River Basin Study Board was made up of members from the governments of Canada, Manitoba and Saskatchewan.

6. Plan of Presentation

This thesis will first present some recreation research and planning concepts necessary for determining the demand and supply of outdoor recreational facilities. The following chapter will cover the methodology used to determine recreation demand, supply and need. This section will be followed by an analysis of the data and a list of the data limitations. The final results will be evaluated and conclusions and recommendations made.

CHAPTER TWO

RECREATION RESEARCH AND PLANNING

It has been generally accepted by most people that the amount of leisure time available to the general population has been on an upswing for at least the past fifty years. This trend started much earlier but the most dramatic changes can be seen since the 1920's. Problems have arisen because of this increase in free time and many agencies have had to face these problems squarely. Various levels of government have had to cope with planning and administrative problems in order to deal with an increasing demand for active and passive recreational, entertainment and cultural facilities to mention a few. As indicated above, this thesis will deal mainly with the need for recreational facilities as they pertain to the out-of-doors type of recreation.

For the purposes of this study, outdoor recreation is defined as an activity or experience carried on out-of-doors, usually chosen voluntarily by the participant, either because of the immediate satisfaction to be derived from it, or because one perceives some personal or social values to be achieved by it. It is carried on in leisure time, and has no work connotations.

1. Forces Involved in the Growth of Recreational Activity

According to Thomas L. Burton there are three main forces which have caused a rapid growth in recreational activity. They are technological, institutional and socio-economic forces (Burton, 1970:14).

A. Technological Forces.—It appears that improvements in the methods of transportation and in the movement of information and ideas are the major technological forces which influence the growth of recreational activity.

(1) Transportation.—Mobility has and will probably always play a major role in the formation of recreational patterns. The development of the railroad was responsible for making accessible, areas normally out of reach for most people. Excursions to remote areas of the country developed. Seaside resorts were no longer available to only the higher income earners. The relative inexpensiveness of the railroad catered to all classes of society.

The family automobile soon replaced the train as the main form of transportation. With the coming of the automobile greater mobility resulted. People were no longer restricted by the routes and schedules set by the railroads. As the road network developed many formerly isolated places became havens for people pursuing recreational activities. "The way was literally paved for the automobile to become king of travel in America" (Jensen, 1973:39). The automobile has also played a major role in urban recreation especially in the large urban centres.

Air travel has also influenced the mobility of the general population as a whole but this form of travel is not as important as the family auto in terms of movement of people on a local or regional scale.

(2) Movement of Information.—Along with improvements in transportation there has also been a significant development of communication through radio, television, and the telephone. These developments have tended to introduce to people new ideas for leisure-time activity through information flow. In some cases they have become recreational pursuits in themselves (Burton, 1970:16).

B. Institutional Forces.—Changes in labor legislation have played an important role in the development of patterns of recreational activities. The law defines the maximum number of hours of work per week and also guarantees the right to each and every employee that they receive certain statutory holidays and a certain amount of annual leave all without loss of pay.

Trade unions are another institutional force which has shaped recreational patterns. The trade unions have been responsible for negotiating shorter working hours per week, longer periods of paid annual leave, and a general increase in wage rates.

Institutional forces have influenced the balance of time between work and recreation, and in the amount of discretionary income people have available for recreational and other pursuits.

C. Socio-Economic Forces.—According to Thomas L. Burton, the socio-economic forces have been of three main kinds: demographic factors, income and occupation, and education.

(1) Demographic Factors.—Of the demographic factors; age, sex and family structure are the most important. These factors are particularly significant in determining the nature and amount of recreational activities in which people take part. Past trends seem to indicate that participation in most outdoor recreational pursuits are at their highest

levels at ages below 25 years, and that participation rates decline with age thereafter (Burton, 1970:19). Family structure and sex factors affect the type of activity that people pursue, more so than the amount of activity.

(2) Income and Occupation.—Income has been steadily increasing along with the cost of living but C. R. Jensen suggests that "in terms of purchasing power per capita, today's consumer is more than two and one-half times as well off as the consumer in the mid 1930's" (1973:45). This statement was made in the early 1970's. As can be seen from Table 1, the total personal expenditure on recreation, sporting and camping equipment and recreational services in Canada has increased from less than a billion dollars in the late 1940's to over 6 billion in the late 1970's. Figure 1 illustrates this growth in constant (1971) dollars for each person based on population levels from Table 2. The amount of money spent on recreational equipment and services has increased by 384% during the period 1947 to 1978 (Table 3).

One may argue that the expenditure figures represent the Canadian average and not the average of Manitobans. The expenditure data is only available for a Canadian aggregate and is not broken down by province. As a result, a simple linear regression model was applied to find the amount of correlation between the average Canadian expenditure on recreational goods and services on the one part and the Manitoban average participation rate in park use on the second part with the latter being the dependent variable and the former being the independent variable.

The data (Table 4) was plotted and the "best fitting" line which minimizes the sum of squares of the deviations of the observed values of the dependent variable from those predicted was constructed

TABLE 1

TOTAL PERSONAL EXPENDITURE ON RECREATION, SPORTING AND CAMPING EQUIPMENT AND RECREATIONAL SERVICES IN CONSTANT (1971) DOLLARS (IN MILLIONS OF DOLLARS)

Year	Recreation, Sporting & Camping Equipment	Recreational Services	Total
1947	234	442	676
1948	241	444	685
1949	242	488	730
1950	249	519	768
1951	262	510	772
1952	275	551	826
1953	327	560	887
1954	362	543	905
1955	425	515	940
1956	498	479	977
1957	535	475	1,010
1958	570	481	1,051
1959	634	476	1,110
1960	668	475	1,143
1961	733	475	1,208
1962	801	481	1,282
1963	867	507	1,374
1964	974	541	1,515
1965	1,069	585	1,654
1966	1,193	646	1,839
1967	1,299	815	2,114
1968	1,394	767	2,161
1969	1,517	765	2,282
1970	1,568	820	2,388
1971	1,990	942	2,932
1972	2,524	1,023	3,547
1973	3,055	1,118	4,173
1974	3,524	1,346	4,870
1975	3,632	1,421	5,053
1976	4,008	1,574	5,582
1977	4,241	1,589	5,830
1978	4,454	1,650	6,104

Sources: Canada. Statistics Canada. 1975. National Income and Expenditures Accounts. No. 13-531 (1): 94,194,294. Ottawa: Queen's Printer.

Canada. Statistics Canada. 1979. National Income and Expenditures Accounts. No. 13-201 (1): Table A. Ottawa: Queen's Printer.

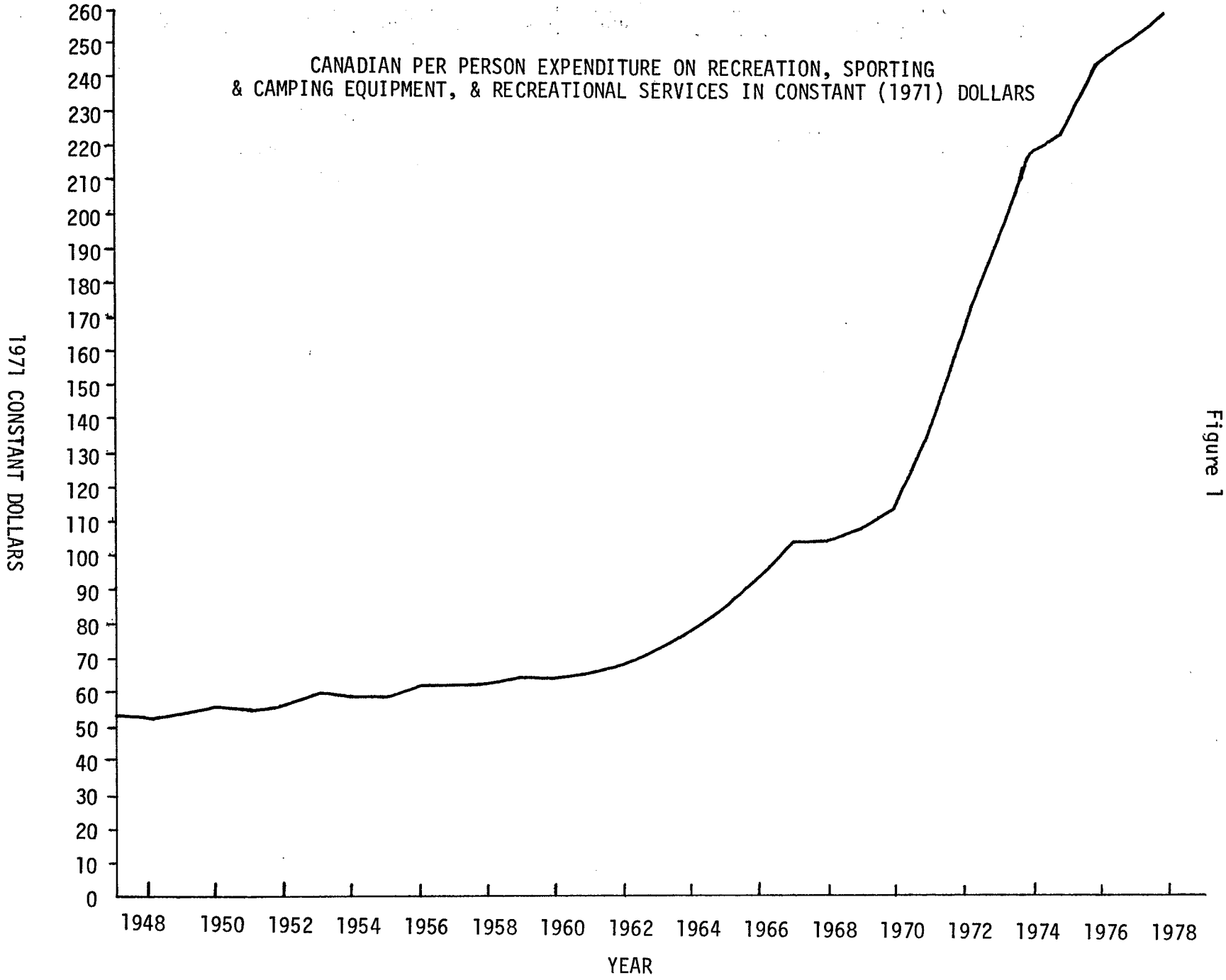

CANADIAN PER PERSON EXPENDITURE ON RECREATION, SPORTING
& CAMPING EQUIPMENT, & RECREATIONAL SERVICES IN CONSTANT (1971) DOLLARS
1971 CONSTANT DOLLARS
260
250
240
230
220
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
1948
1950
1952
1954
1956
1958
1960
1962
1964
1966
1968
1970
1972
1974
1976
1978
YEAR

Figure 1

TABLE 2

POPULATION OF CANADA (IN MILLIONS)

Year	Population	Year	Population
1947	12.6	1964	19.3
1948	12.8	1965	19.6
1949	13.4	1966	20.0
1950	13.7	1967	20.4
1951	14.0	1968	20.7
1952	14.6	1969	21.0
1953	14.8	1970	21.3
1954	15.3	1971	21.6
1955	15.7	1972	21.8
1956	16.1	1973	22.0
1957	16.6	1974	22.4
1958	17.1	1975	22.7
1959	17.5	1976	23.0
1960	17.9	1977	23.3
1961	18.2	1978	23.5
1962	18.6	1979	23.7
1963	18.9		

Source: Canada. Statistics Canada. 1979. National Income and Expenditures Accounts. No. 13-201 (1): Table A. Ottawa: Queen's Printer.

TABLE 3

CANADIAN PER PERSON EXPENDITURE ON RECREATION, SPORTING AND CAMPING EQUIPMENT, AND RECREATIONAL SERVICES IN CONSTANT (1971) DOLLARS

Year	Amount*
1947	$ 53.65
1948	53.52
1949	54.48
1950	56.06
1951	55.14
1952	56.58
1953	59.93
1954	59.15
1955	59.87
1956	60.68
1957	60.84
1958	61.46
1959	63.43
1960	63.85
1961	66.37
1962	68.92

Year	Amount*
1963	$ 72.70
1964	78.50
1965	84.39
1966	91.95
1967	103.63
1968	104.40
1969	108.67
1970	112.11
1971	135.74
1972	162.71
1973	189.68
1974	217.41
1975	222.60
1976	242.70
1977	250.21
1978	259.75

*Calculation Formula: Totals from Table 1 divided by population figures from Table 2.

TABLE 4

SIMPLE REGRESSION DATA
PER FIGURE 2 (1964-1978)

Year	Dependent Variable[1] Manitoba Park Use Participation Rate (Per Capita)	Independent Variable[2] Canadian Expenditure On Recreation Goods & Services (Per Capita)
1964	1.47	78.50
1965	1.63	84.39
1966	1.60	91.95
1967	1.94	103.63
1968	1.83	104.40
1969	2.47	108.67
1970	2.70	112.11
1971	3.03	135.74
1972	3.26	162.71
1973	3.93	189.68
1974	3.68	217.41
1975	4.05	222.60
1976	4.18	242.70
1977	3.92	250.21
1978	3.94	259.75

Sources:

1. Manitoba. Department of Natural Resources. Parks Branch. 1978. "Manitoba Park Use - Participation Rate - Indexed. (Unpublished data). Winnipeg: Parks Branch.

2. From Table 3.

(Figure 2). The simplest functional form is the straight line which is constructed by the formula $Y = a + bX$.

Where: Y = dependent variable - park use

X = independent variable - expenditure

a = the value of Y at the Y axis when X = 0

b = the increase in Y for each unit increase in X

As a result of computing the data (Table 4) using the simple linear regression equation it was determined that there was a correlation coefficient (r) of 0.94. The correlation coefficient varies from zero (no correlation) to ± 1.0 (perfect positive or negative correlation). A correlation coefficient of 0.94 is almost a perfect positive correlation. The square of the correlation coefficient yields the coefficient of determination (r^2) which may be defined as a measure of the extent to which the independent variable accounts for the variability in the dependent variable. The calculated coefficient of determination is 0.89. A test of significance (student's t-test) indicated that the Canadian per capita expenditure on recreational, sporting and camping equipment and recreational services explained 89% of the variation in the Manitoba per capita park use participation rate at the .05 significance level.

As a result of this highly significant correlation, this paper will assume that the recreational expenditure figures as calculated for the average Canadian will also apply to the average Manitoban.

It seems that after a certain point, people make a decision to "choose free time over increased production" (Jensen, 1973:45). In recent decades our productivity has improved greatly and now we have a choice between additional goods or increased leisure time. It is

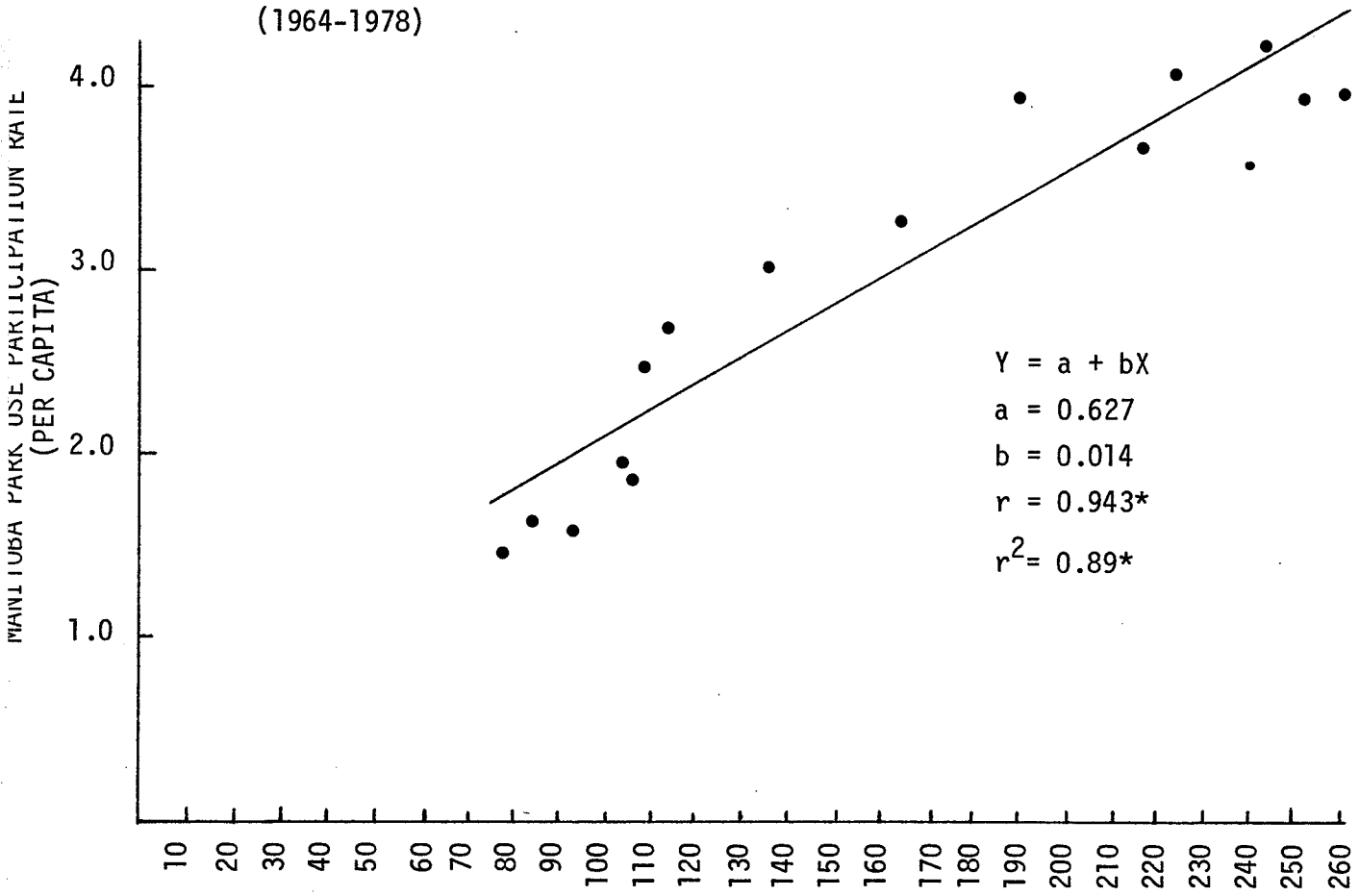
Figure 2

SIMPLE REGRESSION PLOT

INDEPENDENT VARIABLE: CANADIAN EXPENDITURE ON RECREATIONAL GOODS AND SERVICES

DEPENDENT VARIABLE: MANITOBA PARK USE PARTICIPATION RATE

(1964-1978)



CANADIAN EXPENDITURE ON RECREATIONAL, SPORTING AND CAMPING EQUIPMENT AND RECREATIONAL SERVICES IN CONSTANT (1971) DOLLARS (PER CAPITA)

*Statistically significant at the .05 level.

Source: Table 4.

this increased leisure time which has greatly influenced participation rates in outdoor recreation and thus has influenced the demand for outdoor recreational facilities.

Occupation has also been an influencing factor in the types of recreational activities pursued and also in the amounts of leisure time available and the amount of personal disposable income. Most studies show that there is a great deal of intercorrelation among the variables income, occupation and levels and types of recreational activities pursued.

(3) Education.—Education is usually a factor which plays a role in the level of personal income that can be achieved. Higher education usually means higher income; and higher income influences what people do for recreation and where they go to practice it. According to Jensen, "education's effect on recreation is due to the positive relationship between level of education and diversification of interests" (Jensen, 1973:50). He claims that as a result of higher education a person tends to broaden their horizon of interests, appreciations, and skills in recreational pursuits and, therefore, will have higher expectations for areas, facilities and programs in order to satisfy these increased interests. According to Burton, "people who have received formal education beyond the age of 15 years tend to participate more often in a wider range of activities than those who have not" (Burton, 1970:20).

2. Recreation Demand

Recreation demand is a concept which has definition problems. It is a concept which is influenced by many factors. It is in some ways a measurement of considerations other than demand.

A. Defining Recreation Demand.—Demand for recreation will be defined for the purpose of this study as the amount of a recreational facility that is requested by a population as determined by past use. The author is in agreement with J. L. Knetsch who states,

> "...so called 'demand' is not demand at all. The participation rate figures observed are taken under prevailing recreation opportunity conditions. This use or attendance is determined by both demand and the availability of supply" (1973:86).

It is true that past participation is not in itself a measurement of demand. Some people would rather term this application of the word 'demand' as "consumption" (Clawson and Knetsch, 1966:115). They write

> "Attendance or use figures are the net effect of the existing demand and the existing supply, and should be so recognized. Improper accounting of supply considerations leads to the assumption that people will demand increasing quantities of what they now have, and can perpetuate present imbalances" (1966:116).

It is very difficult to determine what level of demand there would be for future facilities. What people do for recreation depends for a large part on the opportunities (supply) available to them and where it is available to them. In an area where there is a large supply of suitable swimming water, the use (consumption) for such purposes as swimming, boating, water skiing and similar water-based activities will be high if the supply is located relatively close to the population centre. If an area is poorly supplied with such water either through the lack of water itself, the poor quality of water which may be available or the distance at which the water is located from the population centre, the use of such water for these activities will be low. If consumption is taken to be demand, care should be taken then

in this example of not providing more access and more facilities for water oriented activities in the area already well supplied but rather to provide suitable water in the area that lacks such an opportunity.

The major question that arises from the above deliberation deals with the concept of 'latent demand'. Latent demand can be defined as 'demand', or for the purpose of this paper, as 'participation' which is dormant. It is demand which is present but not visible or active. It is demand which has the 'potential' to develop into something active.

If we accept as given the factors of present motivation, and present time and money budgets, present latency is due to lack of supply. There is no real means of determining present latency except by drawing parallels between the particular problem situation being dealt with, and another comparable situation in which all variables are the same except for the factor of supply.

Latent demand can also be found in other forms. A person may participate in a substitute activity because there is no facility available for the preferred activity. It is very difficult to measure this form of latent demand.

Even though statistics on participation alone ignores the question of what the recreation choices would be if work-weeks were shorter, more facilities were available and if travel time and costs were reduced, 'participation' for the purposes of this thesis will be treated as synonymous with 'demand' because the concept "What would you do if...?", is extremely difficult to evaluate and qualify. Most studies neglect true demand and concentrate on participation. As used in this study, demand refers only to participation rates and number of recreation users.

B. Factors Affecting Demand.—There are many factors which influence the demand for outdoor recreational facilities. This study will attempt to examine a few.

(1) Available Recreation Time.—There are different periods of time available for recreation. There are evenings, half days, whole days, weekends and even longer periods which can be termed holidays. Total non-working time in a year is not a very good determinant as to the choice of activity pursued. More important is the length of each period of leisure time. The prevalence of shift working or the staggering of working hours affects the distribution of the working population's total opportunities for recreation.

(2) Cost.—The cost of recreating stems from different sources. There are costs associated with the use of the facilities, transportation to the facilities, and equipment required for the chosen activity. Some of the costs may be ongoing and some may be non-repetitive, such as the purchase of a tennis racquet. Some of the costs may be direct and some may be indirect. Indirect costs are involved when a person uses subsidized public transportation (urban), municipal tennis courts, provincial parks and related facilities. In most cases the cost to the user is not the true or total cost.

Cost plays an important role in the decision-making process as to what activity a person can afford to participate in. Cost is clearly related to disposable income. As the amount of disposable income decreases, the selection or range of choice of recreational activities available to a person also decrease.

(3) Education.—The level or the amount of education a person receives also influences the choice of activities pursued. As the

educational system broadens its horizons the students enrolled in that system are introduced to an increasing range of activities. Education affects participation much the same as income does; generally speaking, the more of it people have up to a certain point the more they are likely to participate (demand).

(4) Car Ownership.—The number of automobiles has greatly increased over the last few decades. Being mass produced mostly in this century the automobile has been adopted by almost every family in North America. It has become not only a source of transportation to recreation sites but also the basis of several forms of recreation itself. It has revolutionized society's use of leisure time. Some pursuits are more strongly influenced by car ownership than others. If a person does not have access to a vehicle it is difficult to reach most of the recreational areas, thus restricting participation, which in turn reflects upon demand.

(5) Life Styles.--Recreation patterns are also influenced by life styles and life cycles. The two are closely linked and, of course, subject to change. The social groupings within which an individual moves at different stages of his career draw him to styles of living which will have characteristic recreational activities. The particular life style will therefore be one means by which a person is introduced to an activity and, depending on the enjoyment and satisfaction achieved, regular participation may develop. Complementary to this, the development from single status, to marriage and various stages of raising a family, has a marked effect on recreation patterns. There are changes too within the marriage relationship which are affecting recreation patterns. Couples are increasingly

sharing their leisure time, where previously the wife was left at home to look after the family while the husband went out with the 'guys'. It is these changes in life styles and life cycles which influence the participation (demand) in (for) outdoor recreation.

(6) Demographic Factors.—Population size and growth rates, age and sex structure, family size, etc. all affect the demand for recreational facilities. Of these factors it seems that age has the sharpest influence. It seems that the older people become, the less they engage in outdoor activity. This decline is most noticeable in the more active pursuits. In some cases, the amount of activity increases with age, i.e. lawn bowling. But the general picture is one of declining activity with advancing years.

(7) Geographic Location.—This factor is closely linked to population size in the above demographic section. Demand for outdoor recreation is concentrated in areas where people are also concentrated, in metropolitan areas. The great bulk of the outdoor-recreation demand must be satisfied in the after-work and weekend hours; therefore, even though Canadians are highly mobile they seek most of their recreation close to home. Even on vacation trips the majority seek recreation only one or two days' travel away. This does not mean that the more distant areas are less desirable. They can provide a qualitative element that may be only rarely experienced but that can be very important, especially to people who live in cities. There is a certain amount of gratification received from just knowing that something exists and that maybe someday it will be personally utilized.

C. Other Considerations.—There are many other factors which influence participation in outdoor recreation. Two significant factors

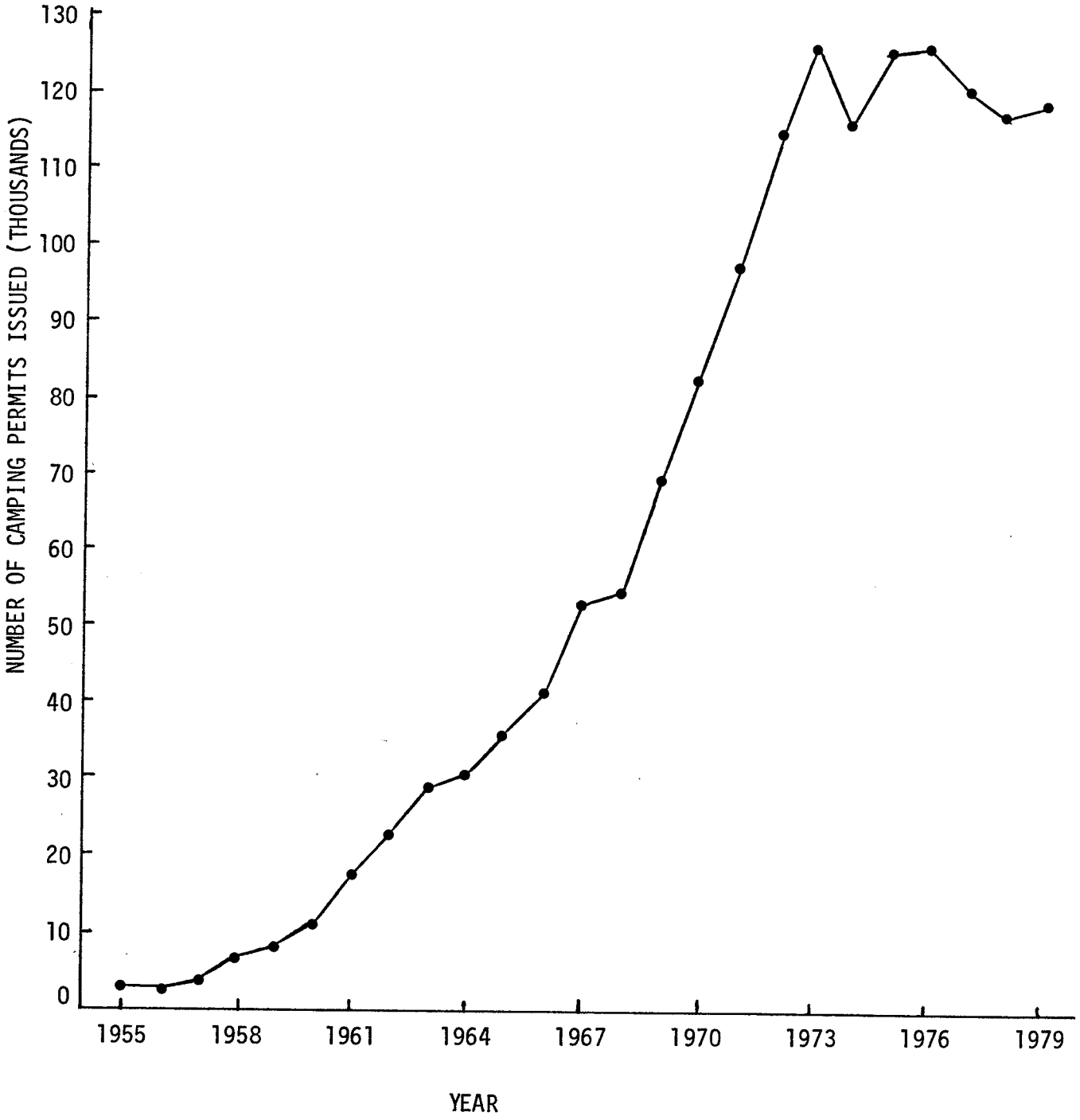
have added to demand. First, there is the popularity and diversity of new recreational equipment, such as motorbikes and snowmobiles. And second, there is the public awareness and concern for the natural environment, resulting in more persons desiring and participating in out-of-door experiences. The new developments in the mass media have been responsible in bringing information into our homes with regard to new recreational equipment. The mass media have also influenced attitudes towards the natural environment through public awareness programs and advertising.

3. Recreation Supply

It is generally accepted that participation in outdoor recreation has increased dramatically over the past few decades. There is not much in the way of participation data which measures only participation. Most participation figures are a composite of interaction between supply and demand. Nevertheless, the data gives an indication of the overall trend in outdoor recreation. For example, the number of camping permits sold in Manitoba gives an indication of how the participation rate in camping has increased over the past years (Figure 3). But camping permit sales are a function of demand and supply. In most cases the number of campsites available far exceeds the number of campsites demanded. There are a number of days each year when the opposite is true, and thus there is a certain amount of unfulfilled demand. Thus, part of the demand is made up of two components. First, there are those campers who are turned away from the full campgrounds and second, there are those who would have gone camping but did not attempt to do so because of the high probability of being turned away. There is also a possibility that some of the

Figure 3

CAMPING PERMIT SALES IN MANITOBA'S PROVINCIAL CAMPGROUNDS, 1955-1979



demand or participation is a direct result of the supply. Some people may go camping just because the facilities are present. Nonetheless, the trend indicated in Figure 3 reflects the direction that participation in camping is taking.

Because of these and other trends, the indications are that the demand for outdoor recreation has increased at a precipitous rate in recent years. If this trend continues even at a reduced rate, the problem will be one of supply keeping up with the demand.

A. Defining Recreation Supply.—Recreation supply for the purposes of this thesis is the amount or quantity of recreational facilities available for use at a particular time.

B. Problems in Determining Supply.—Any consideration of the supply of recreational facilities must consider their effectiveness as a resource. For the user exercising a choice, the effectiveness of a resource will be measured, consciously or subconsciously, by such factors as its location, accessibility, cost (including travel and payment for the use of the facility itself) and management policies. The management and administration of the recreational facilities themselves are also crucial factors in the effectiveness of the total supply of resources. Each recreational facility has a carrying capacity which can differ with various types of management policy. Pricing policies, which are part of management, may add to or limit supply effectiveness.

The complexity of the supply of and demand for recreation facilities is increased when it is recognized that patterns of recreation are constantly changing and that one is discussing problems in an area of community life where individual choice predominates.

C. Types of Recreational Supply.—There are several types of outdoor recreational resources. They can be classified into three types; user-oriented, intermediate, and resource-based recreational resources (Jensen, 1973:195).

(1) User-Oriented.—These are resources which are close at hand to the users. Urban parks, neighbourhood playgrounds, local tennis courts and golf courses are just a few of the user-oriented outdoor recreation resources.

(2) Intermediate.—Intermediate type resources consist of areas and facilities which are a little further away physically from the user. They tend to be located within a short driving distance from the user. They are usually larger in size or more numerous in quantity. Provincial parks and campgrounds, forest reserves, private recreational areas, and associated facilities such as campsites, picnic sites and tables are examples of intermediate supply of resources. A few of the larger urban parks may also fall into this category.

(3) Resource-Based.—These resources are usually areas and facilities which provide uniqueness in terms of recreational opportunities. They are usually areas which have a unique and natural outdoor quality. There is, as a rule, very little development associated with resource-based areas. Wilderness parks and some of the larger provincial parks and most of the national parks are examples of this classification. There may be nodes of user-orientated developments in these parks but strictly speaking most of the area involved is kept 'untouched' or in an "unmodified state" (Jensen, 1973:198). Resource based areas are generally located at greater distances than the intermediate areas and as a result are visited less frequently

but not necessarily by a smaller number of people. In some cases these parks draw people from great distances and from all directions. Jensen points out that "the trends toward increased leisure time, more income, and greater mobility point strongly toward a great escalation in the use of these areas" (1973:198). This increased use will probably be to the detriment of the delicate natural qualities of the area which are in themselves the main drawing card of the park.

D. Distribution of the Supply.—Most user-oriented areas are distributed quite evenly according to the population. This distribution becomes less even for intermediate areas and even less so for the resource-based areas. The resource-based parks are, as the name implies, located where the resource happens to be and as such are independent of proximity to populated areas.

4. Recreation Need

When the volume of demand and supply for recreational resources and facilities has been established the data must be converted to 'needs' for resources and facilities. 'Need' is a very subjective concept. It is not susceptible of completely objective determination. In fact, the word 'need' itself should be recognized as being of limited usefulness. One person's need is another's necessity. 'Need' might more properly be termed space or facility requirements necessary to meet projected demand.

Defining Recreation Need.—'Need', strictly speaking, means that there is a lack of something required. For the purpose of this thesis 'need' will be defined simply as the difference between the amount of a resource or facility demanded and the amount supplied.

CHAPTER THREE

METHODOLOGY

This section of the paper deals with problems associated with regional breakdowns of Manitoba and also with the methods used in determining the supply, demand and need for outdoor recreation in the province of Manitoba.

1. Scope of the Analysis

The data for determining supply, demand and need will be analyzed along three lines. First, the province as a whole will be analyzed, then the city of Winnipeg will be segregated for a rural-urban analysis. And thirdly, a regional breakdown of the province will be used to analyze the data.

A. Provincial Analysis.—The province of Manitoba will be analyzed in order to determine the need for outdoor recreational facilities on a provincial level. The data analyzed will be in the form of provincial totals. Comparisons with other provinces or with the country as a whole are then possible. Trend analysis can also be accomplished, using the provincial data.

B. Rural-Urban Analysis.—Approximately 55% of Manitoba's population is located in the city of Winnipeg. As a result it was deemed necessary to separate the city of Winnipeg from the provincial analysis in order to make rural-urban comparisons. It is acknowledged that there are other urban centres in the province of Manitoba but

for the purposes of this thesis the city of Winnipeg will be considered the urban sector of the province with the remainder being classed as the rural sector.

The rationale behind this decision is two-fold. First, there is not much information with regards to supply that is readily available for the small urban centres. Much of the information available is on a municipal level and as such is difficult to distinguish the urban supply from the rural supply within each municipality. And secondly, there is the problem of determining which population centres will be included as rural and which will be urban. Winnipeg consists of a densely-settled metropolitan type of population which is different enough from the rest of Manitoba's inhabitants to merit segregation. It should really be "metropolitan" vs "other" and not "urban" vs "rural", but for the purposes of this thesis the above decision will stand.

This study will attempt to find existing differences in participation rates on an outdoor recreational activity basis between the city of Winnipeg and the remainder of the province.

C. Regional Analysis.—As noted earlier it is one of the major purposes of this paper to analyze supply, demand and need for outdoor recreational facilities on a regional basis. There are several types of regional breakdowns used in the province of Manitoba. There does not appear to be any particular breakdown which is accepted or used to any great extent. It seems that many of the provincial government departments have adopted regions which are suited to their individual needs.

(1) Types of Regional Breakdowns.

a. Official regions for data collection.

The regions depicted in Figure 4 are the official data collection regions. Through the Rural Region Working Group, the Labour Force Survey Task Force and the Manitoba Bureau of Statistics, the three government departments of Agriculture, Health and Social Development, and Industry and Commerce in 1973 were able to agree on a set of regional boundaries to be used both by Statistics Canada and the Manitoba Government itself.

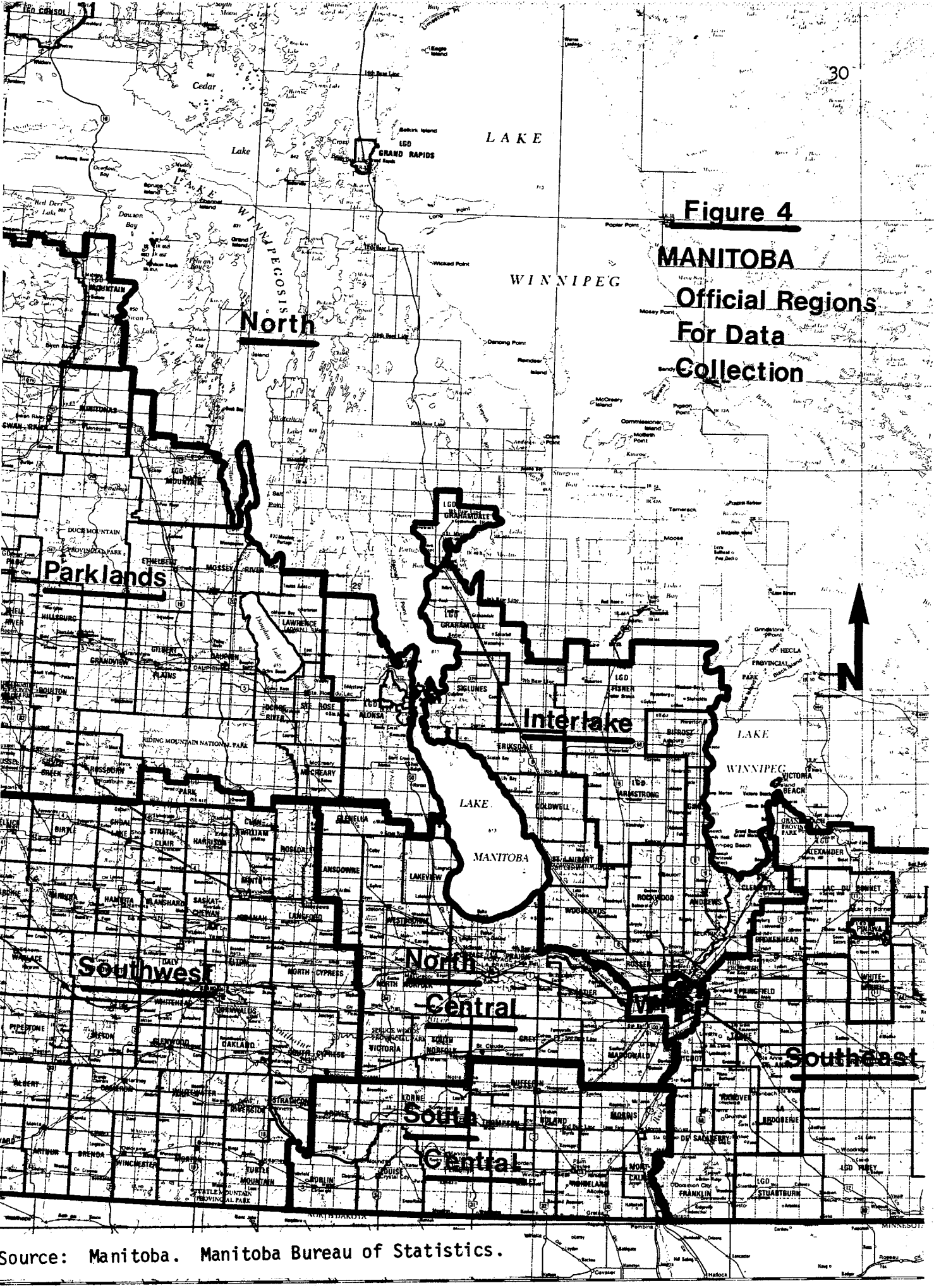
A major criterion in defining the regions was that municipal and Indian Reserve boundaries not be split and that the new regional boundaries follow census divisions. As a result, the official regions for data collection are a combination of legislated boundaries (Northern Affairs and the City of Winnipeg) and departmental administrative regions with an underlying attention given to functional relationships.

b. Parks Branch regions.

It is realized that a single set of regions cannot satisfy all needs. The Parks Branch of the Department of Tourism, Recreation and Cultural Affairs of 1973 decided to operate with regions that were designed toward the park system and its administration. As a result the official data collection regions would not serve any purpose and therefore the regional boundaries as illustrated in Figure 5 were maintained. In July of 1979 the three official regions were reorganized into seven regions (Figure 6). The regions were changed in order to enhance the administration of the divisions or branches within the Department of Mines, Natural Resources and Environment. The Parks Branch was one of seven resource branches within that department. Through an Order-in-Council on November 14, 1979, the Parks Branch

Figure 4

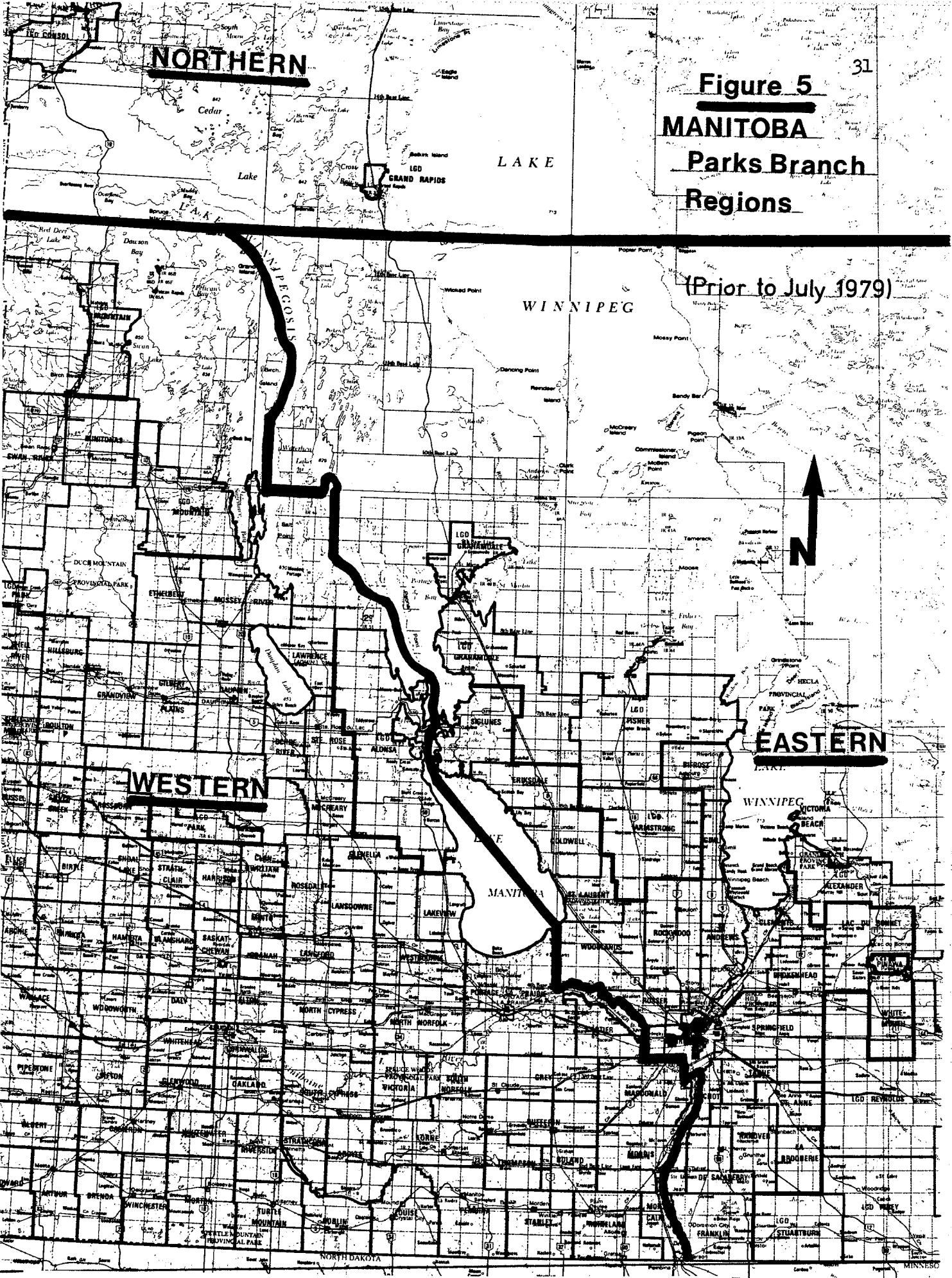
MANITOBA
Official Regions For Data Collection



Source: Manitoba. Manitoba Bureau of Statistics.

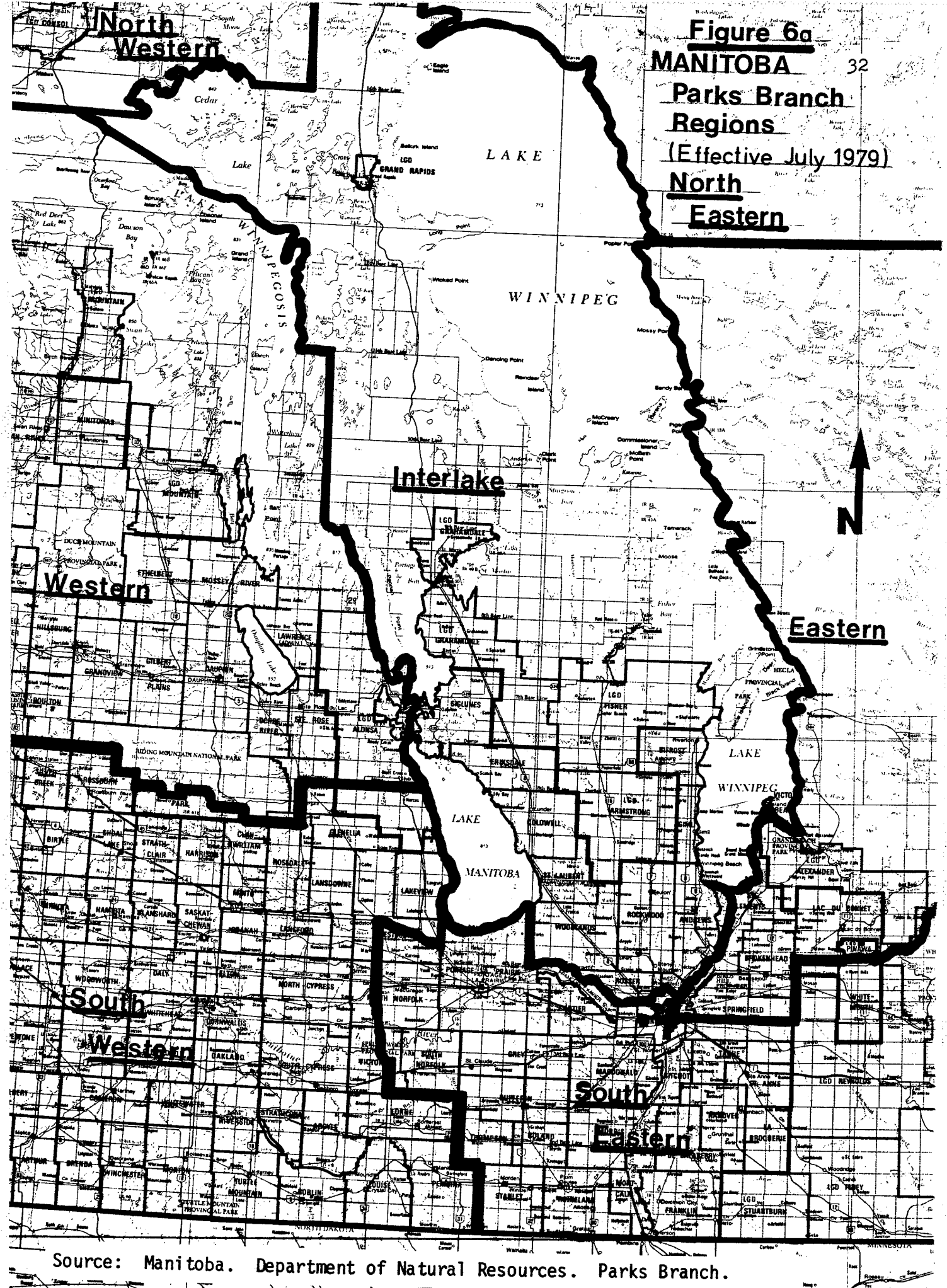
Figure 5
MANITOBA
Parks Branch
Regions

(Prior to July 1979)

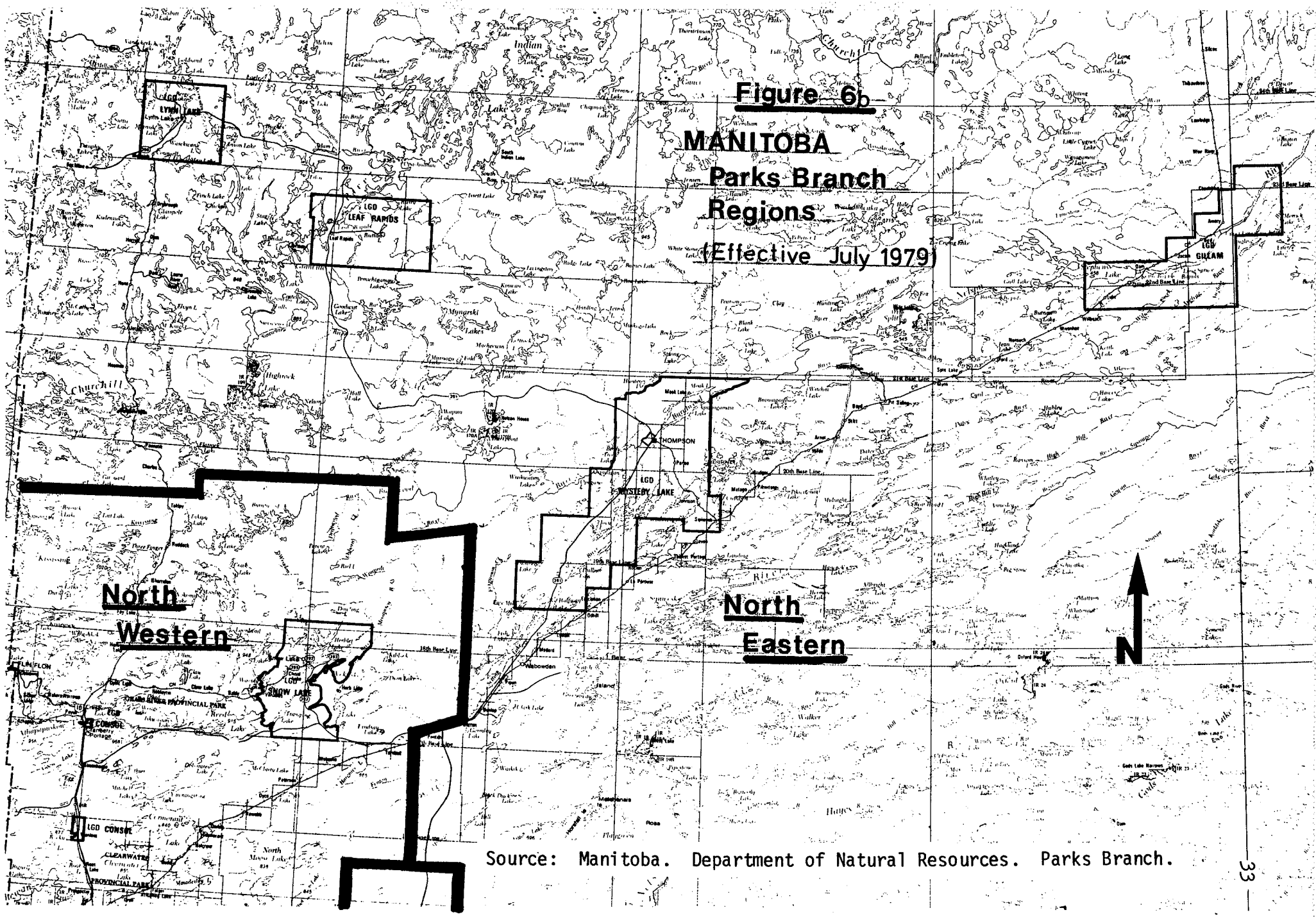


Source: Manitoba. Department of Natural Resources. Parks Branch.

Figure 6a
MANITOBA
Parks Branch Regions
(Effective July 1979)



Source: Manitoba. Department of Natural Resources. Parks Branch.



Source: Manitoba. Department of Natural Resources. Parks Branch.

became part of a new government department, the Department of Natural Resources. The newly formed department adopted the regional breakdown formulated in July 1979 (Figure 6).

c. Service regions.

The service region concept is based on a travel time decay function. An in-house document written by R. Wilson of the Parks Branch, Department of Natural Resources laid out eleven different regions based upon one and two hour service region maps. The main reasons for using a combined approach were that one hour service regions left large areas of the province unassigned and the two hour service regions generated a vast amount of overlap. In order to reduce the amount of overlap and still cover the province a combination map was produced (Figure 7). These service regions coincide closely with the study of the functional relationship of settlements and their spheres of influence as prepared by the Regional Analysis Program of the Department of Industry and Commerce (Carvalho - Page Group, 1971).

It was found that a regional approach which considered some function of outdoor recreation facility use was preferable to one which considered mainly administrative objectives. The service region concept considers the amount of time a recreationist is willing to travel in order to engage in an outdoor activity. A study done in New York State shows that seventy-eight percent of the camping, ninety-two percent of the day-use activities and one hundred percent of the community based recreation is pursued within a two-hour travel time radius. The one-hour time zone applies to thirty-five percent of the camping, sixty-three percent of the day-use activities and ninety-

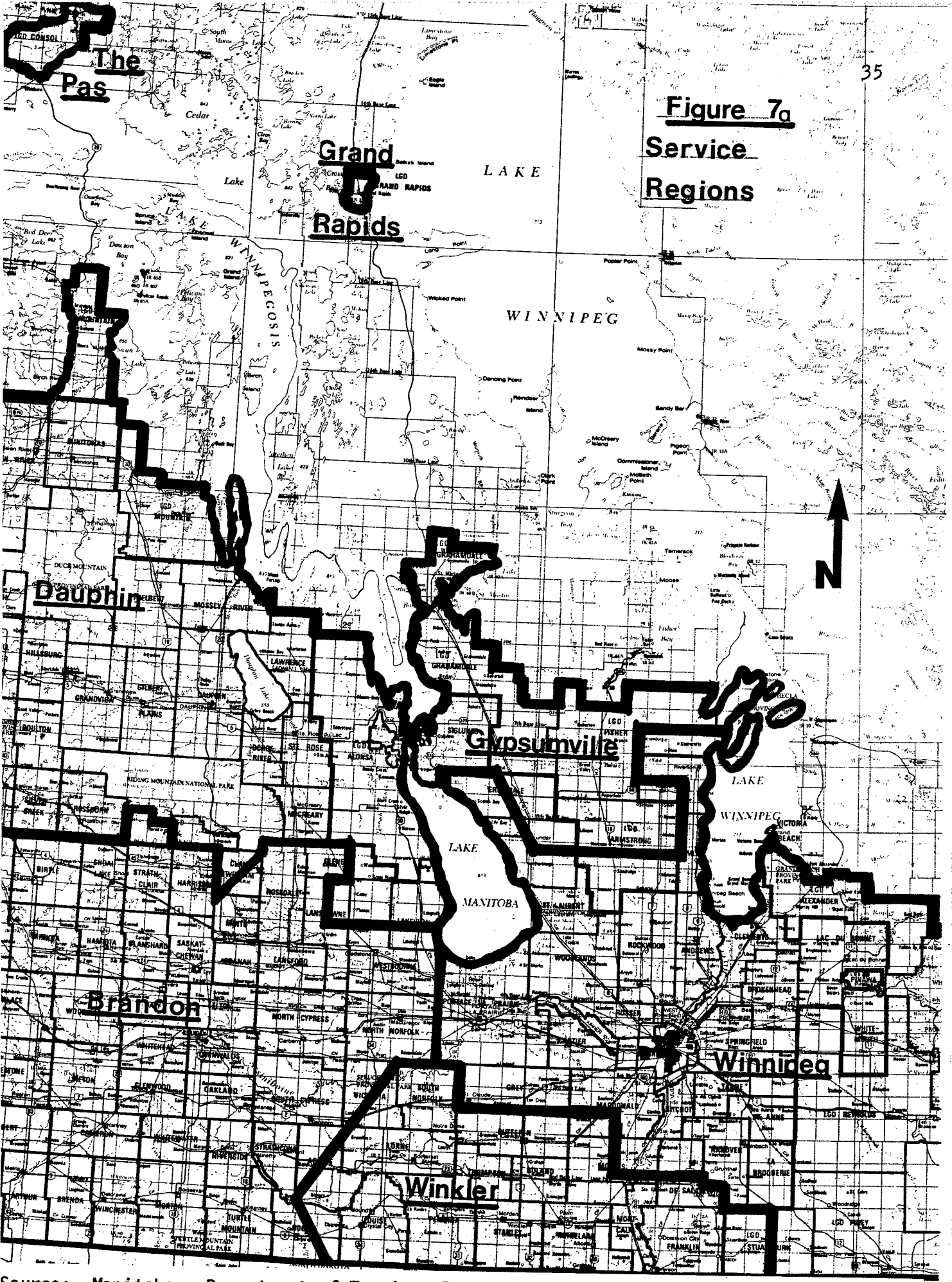


Figure 7a
Service Regions

Source: Manitoba. Department of Tourism, Recreation and Cultural Affairs. Parks Branch. 1976. "Manitoba Population Projections and Service Region Statistics". (Unpublished document prepared by R. Wilson). Winnipeg: Parks Branch.

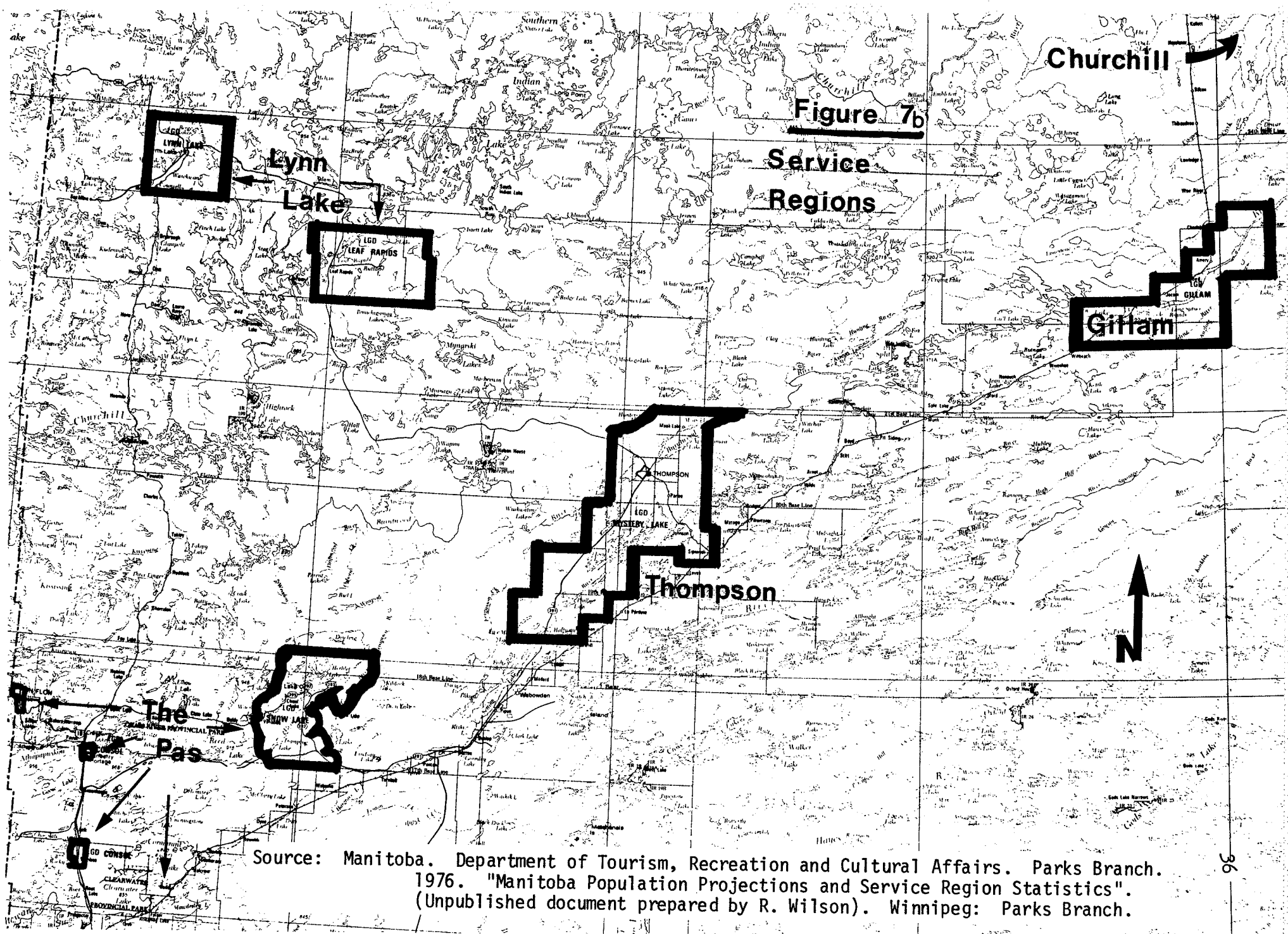


Figure 7b
Service Regions

Source: Manitoba. Department of Tourism, Recreation and Cultural Affairs. Parks Branch. 1976. "Manitoba Population Projections and Service Region Statistics". (Unpublished document prepared by R. Wilson). Winnipeg: Parks Branch.

four percent of the community-based recreation. (New York State Parks and Recreation, 1972:82).

From the above study it appears that the duration of the activity is positively related to travel time.

> "People will generally travel further for the full day outing usually associated with 'day-use' activities than for the hour or two associated with sports such as games or skating, and they will travel even further for the overnight stays associated with camping. The distribution of supply generally reflects these attitudes and, in turn, affects the observed 'decay' patterns" (New York State Parks and Recreation, 1972:82).

There are exceptions where people seek a unique environment or wish to avoid crowds and will therefore travel greater distances.

(2) Regional Breakdown Modification.

a. Regional breakdown chosen.

Based upon the above studies it was decided that travel time is a good basis upon which the province could be divided regionally for the purposes of analyzing recreational facility use and facility supply. As pointed out earlier, most regional breakdowns and associated boundaries are arbitrarily set for purposes of administering government departments. The main reason for subjectively selecting most government regional layouts is to equalize work loads amongst regional managers. This method is not acceptable for the purposes of this paper. A more sophisticated method, one which forms the basis for which recreationists view their physical space, is more applicable.

The regional breakdown as presented by R. Wilson is objective in nature and considers population centres or nodes and travel patterns (Manitoba. Department of Tourism, Recreation and Cultural Affairs. Parks Branch, 1976). A form of this regional layout will be used in this paper.

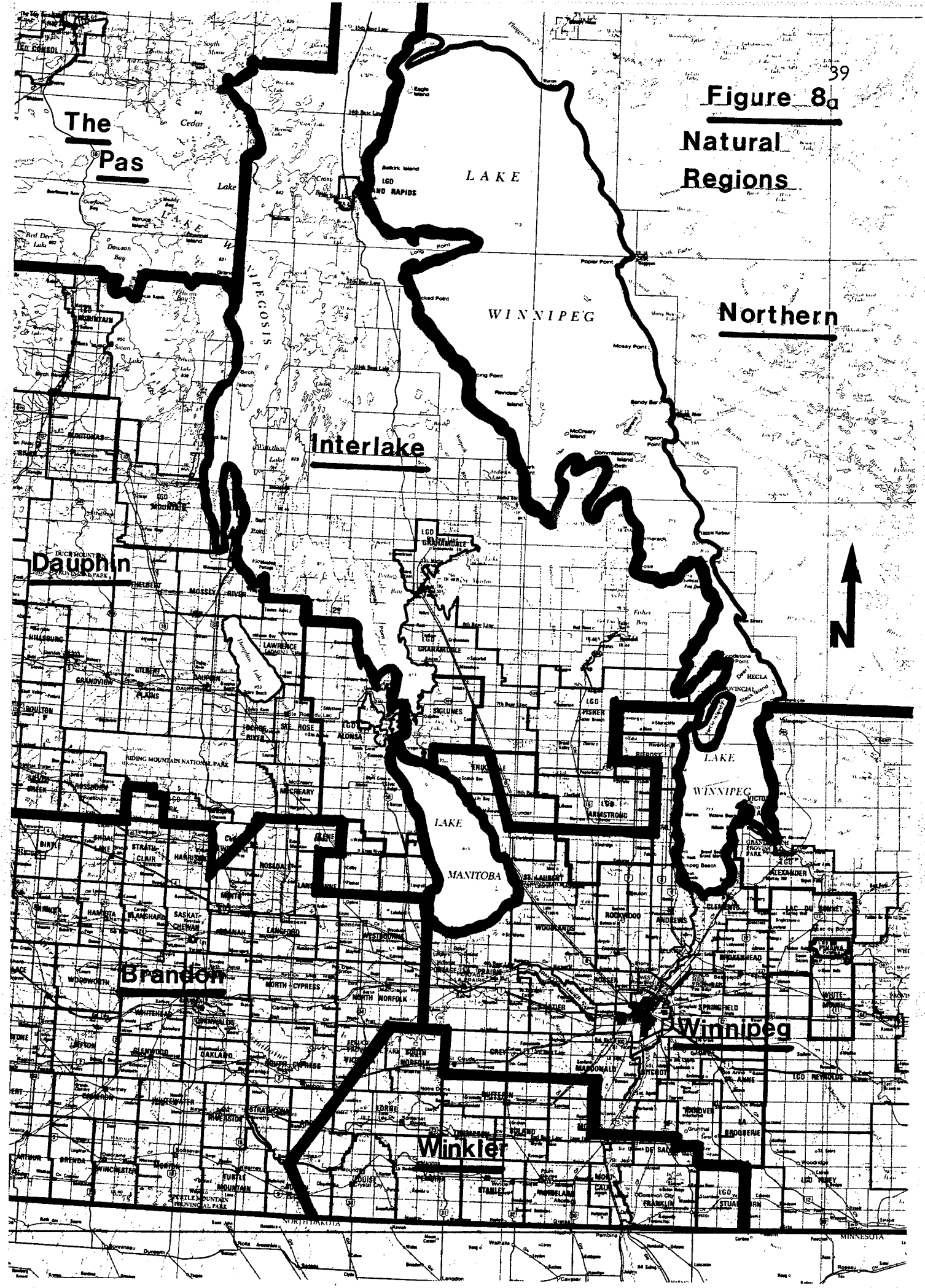
b. Modifications to the service regions.

It was found that the number of regions Wilson used in his service region approach were too numerous for the purposes of this thesis. The service region approach was comprised of six northern regions which contained less than five percent of Manitoba's population and five southern regions which contained all the rest. It was therefore decided that the service regions of Churchill, Gillam, Lynn Lake and Thompson would be combined for the purpose of this thesis in a "Northern" region (Figure 8). The service regions of Gypsumville and Grand Rapids were amalgamated into an "Interlake" region. The remainder of the service regions (Brandon, Dauphin, The Pas, Winkler and Winnipeg) remained intact.

There exist areas of overlap between the regions. It can be reasoned that the people living in these areas do not associate themselves on a regional basis in terms of outdoor recreational pursuits. They may be halfway between two regional centres and therefore may choose either region to participate in outdoor activities. The regional boundaries are along municipal lines. The regions of overlap are depicted in Figure 9 by municipalities which have diagonal lines through them. Half of the participation and half of the supply of facilities of these municipalities is assigned to the adjacent regions.

In order to keep the two time-travel region approaches separate, the revised service regions will be called 'Natural Regions'. It is upon these regions that all further regional analysis in this thesis will be based on. Most information is presented on a rural municipal level in appendix form except for participation rates and frequencies which, because of the volume has not been reproduced but are available

Figure 8a
Natural Regions



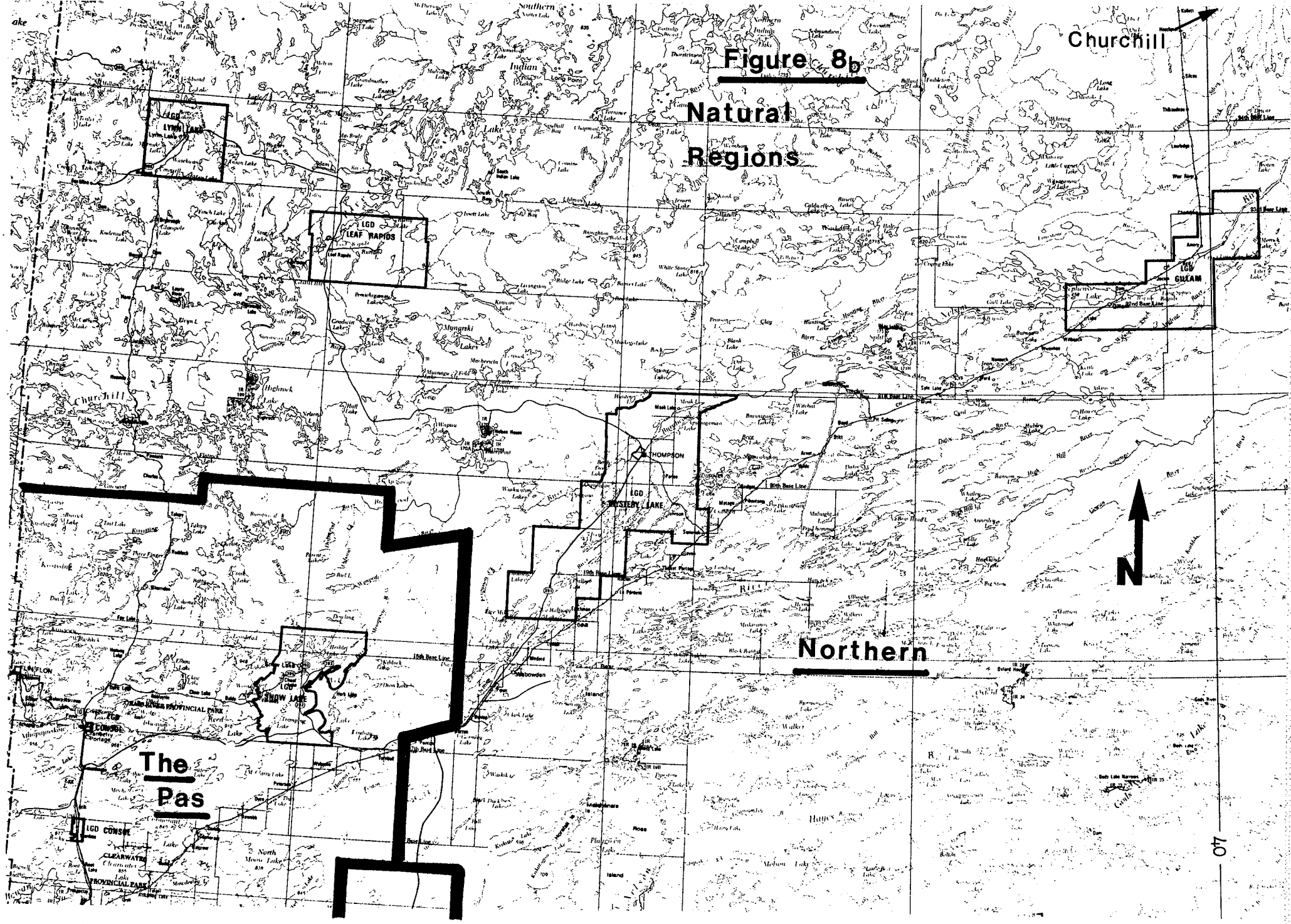
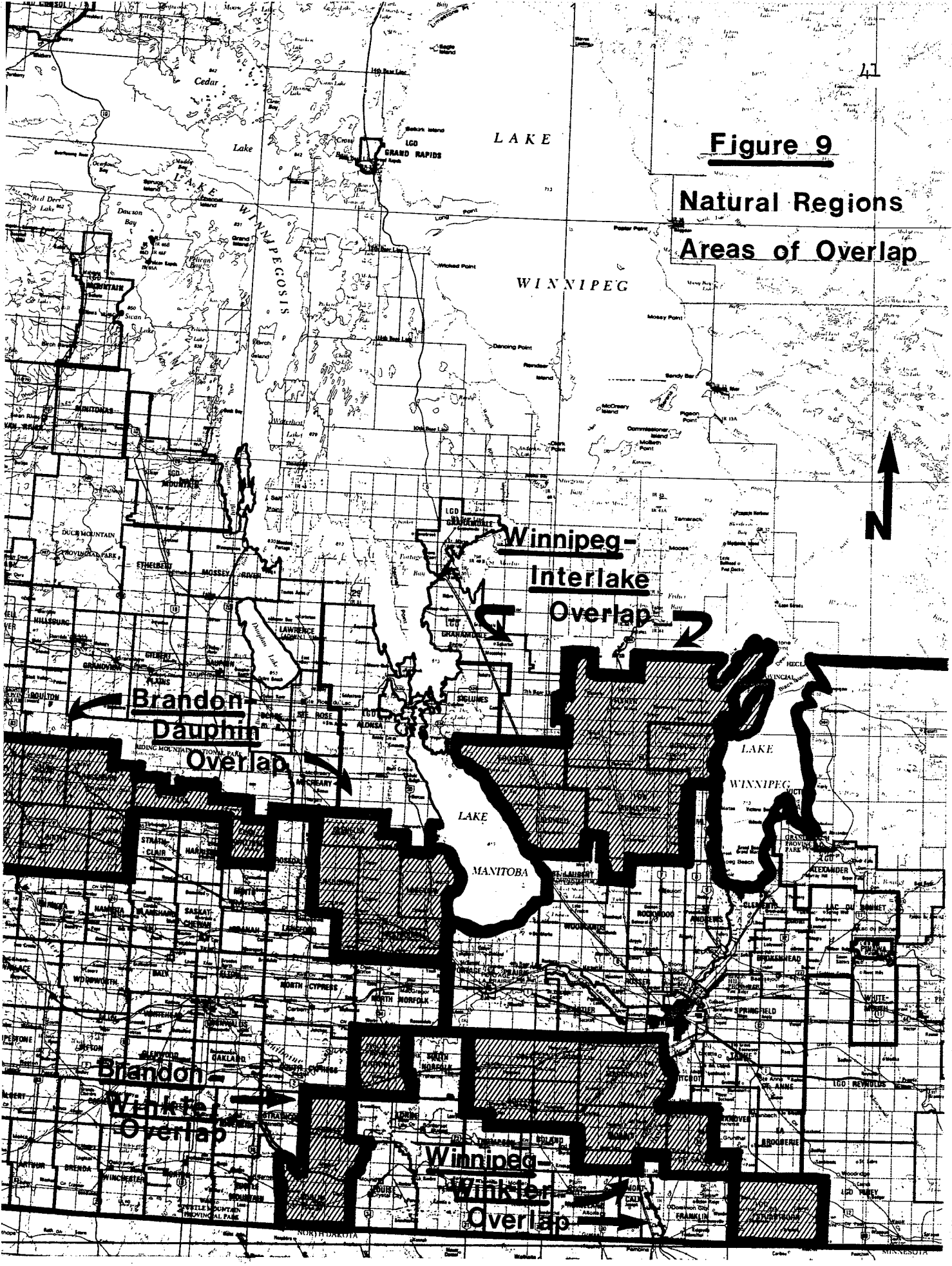


Figure 8b
Natural
Regions
Churchill
LGD
LYNN LAKE
LGD
LEAF RAPIDS
LGD
GILLAM
THOMPSON
LGD
MYSTERY LAKE
LGD
SNOW LAKE
LGD
CONSUL
LGD CONSUL
CLEARWATER
PROVINCIAL PARK
FLIN FLON
The
Pas
Northern
N

Figure 9

Natural Regions Areas of Overlap



Source: Manitoba. Department of Tourism, Recreation and Cultural Affairs. Parks Branch. 1976. "Manitoba Population Projections and Service Region Statistics". (Unpublished document prepared by R. Wilson). Winnipeg: Parks Branch.

on magnetic tape through the Systems Section of Administrative Services of the Department of Natural Resources. Because supply and demand information is available at the municipal level, the need for outdoor recreational facilities can be calculated for any regional breakdown of the province.

2. Determining Recreation Demand

This portion of the paper will deal with the problems and methods used in determining the demand of outdoor recreational facilities.

A. Participation vs. Demand.--As noted earlier, most people consider participation rates as a measure of consumption rather than demand. But because demand as such is very difficult to measure in terms of recreational facilities it was decided that past participation would be a good indicator as to how much of a recreational facility is demanded by the population. Since there were no current statistics with regards to participation rates and frequencies and also since participation rates in various activities seemed to have changed quite drastically in the past few years, it was decided that a telephone survey would be the most economical and quickest method of obtaining current figures.

B. The Survey Design.—The survey was designed to obtain the maximum amount of information in the shortest possible time. It had been determined that a telephone survey would be the fastest and least costly method of obtaining the information. Because of the nature of the telephone it was decided that a short survey would be required.

The first objective of the survey was to obtain current participation and frequency rates in selected outdoor recreational activities. Secondly, some measurement of latent demand was required. A third

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objective was to determine the interviewee's feeling about the adequacy of various facilities associated with each of the selected activities. A final and minor objective was to determine why the respondents thought the facilities inadequate.

In response to these objectives, the survey in Appendix A was designed. Section 'A' deals with the questions of participation rate and frequencies in the various selected activities. Section 'B' deals with the 'adequacy question' of facilities and the reasons for an 'inadequate response'. Section 'C' allows the respondent to add to the list of outdoor activities and offer information on frequency rates and adequacy of associated facilities. Section 'D' is in response to the question of latent demand. Respondents were able to mention any activities they would participate in if the facilities were provided. And finally, Section 'E' was aimed at obtaining visitation rates for Manitoba's Provincial Parks.

(1) Survey Sample Selection.—The sample was selected from the Winnipeg and Manitoba Provincial Exchange Telephone Directories in the following manner:

a. Urban Manitoba.

The last name and telephone number was selected from each column of the Winnipeg directory except the last column of the odd numbered pages. This method of selection resulted in 1,760 names and telephone numbers being identified.

b. Rural Manitoba.

The last name and telephone number of each column of the Provincial directory was selected to be part of the sample. As a result, 1,414 names and telephone numbers were identified.

It should also be mentioned that if the last number in a column was associated with anything other than a private residence the number was not selected as part of the sample.

c. Rural-Urban Split.

The rural-urban split which resulted from this method of selection was 44.5% and 55.5% respectively. The actual split as calculated from the Manitoba Health Services Commission population figures is 44.8% and 55.2% for the rural and urban respectively.

(2) Method of Conducting the Survey.—A government contract was signed with a Winnipeg based telephone service agency to make the necessary calls in order to survey the sample selected. The telephone interviewers were instructed to survey only persons 18 years of age and older. This was deemed necessary in order to avoid meaningless responses from young children. Each telephone number selected was called. If there were three unsuccessful attempts to make contact with the number, it was abandoned. Another number was not selected to replace it. If contact was made and the respondent was willing to participate in the survey, the interviewer would ask questions in Section 'A', and subsequently would only ask the Section 'B' questions for those activities of Section 'A' in which a positive response was given. For example, if a person did not participate in camping there would be no use in determining that person's feelings about the adequacy of campsites and sanitary facilities.

The interviewers were also instructed to vary the order in which the questions under each section were asked in order to avoid any order bias. It has been shown in many studies that people give more of their undivided attention to the first part of a questionnaire

and become less enthusiastic as the questionnaire progresses.

If a questionnaire was completed, the telephone exchange number (the first three numbers of a seven digit telephone number) or the N,X,X. code was written on the top right-hand corner of the first page of the questionnaire. This code was later used in identifying the area of the province from which the questionnaire was obtained (Appendix B).

C. The Programm (SPSS).—The completed questionnaires were keyed to magnetic tape which was later retrieved and analyzed by a computer program specifically designed for extracting information from the questionnaires. The questionnaire was designed to facilitate the keying of the data. Alongside each response on the questionnaire are the associated card columns (Appendix A). This technique eliminated much of the coding of the information. Only Sections 'C' and 'D' had to be coded by activity. The format in which the data was keyed is better visualized by Figure 10.

The Statistical Package for the Social Sciences (SPSS) is a system of computer programs (Nie, et al, 1975). This system enables the user to perform many different types of data analysis. It provides the user with a comprehensive set of procedures for data transformation and file manipulation.

A computer program was written utilizing SPSS to extract participation rates and frequencies for each of the selected outdoor recreational activities. The data file was recoded along telephone exchange codes and then aggregated into various groups in order to apply various statistical routines. Three computer runs using the aggregate routine were applied to the activities of Section 'A'.

Figure 10

KEY TO TAPE FORMAT

I.D. CODE	EXC. NO.	CAMPING	PICNICKING	VISITING HISTORIC SITES	DRIVING	WALKING HIKING BACKPACKING	CYCLING	HORSE-BACK RIDING	BEACH SWIMMING	FISHING	HUNTING	SAILING	CANOEING	BOATING & WATER SKIING
4	7	16	21	27	31	39	43	47	52	56	58	62	66	72

Figure 10

X-COUNTRY SKIING SNOWSHOEING	DOWN-HILL SKIING	SNOW-SLED-DING	ICE SKATING	SNOW-MOBILING	OFF-ROAD VEHICLE DRIVING	GOLFING	TENNIS	COT-TAG-ING	OTHERS (WITH FACILITIES)			OTHERS (WITHOUT FACILITIES)	PARK VISITATIONS ↓
80	85	88	92	97	105	109	112	115	120	125	130	139	140

The data were analyzed by regions, rural-urban, and by provincial totals. The results of the aggregate run yielded participation rates and frequencies of participation for each region, for rural Manitoba, for Winnipeg, and for the province as a whole.

The SPSS BREAKDOWN routine was used to extract participation rates and frequencies of participation for Sections 'C' and 'D' dealing with "other" outdoor activities. Breakdown was also used to calculate the preference for the various types of campsites available. As in the aggregate runs, breakdown was applied in the same manner with respect to regions, rural-urban sectors, and the province as a whole.

The CROSSTAB routine of SPSS was used to analyze Section 'B' of the questionnaire which deals with the adequacy of available facilities. The results of the crosstab analysis yield percentages of respondents who feel the facilities are adequate, inadequate and also percentages of those who are indifferent towards the adequacy of the facilities. The calculations were again done for the same three data files.

D. Calculations for Determining Demand.—In order to determine the demand for outdoor recreational resources, the participation rates have to be determined as outlined above.

(1) The Demand Equations.—Once the participation rates are calculated, the volume of resources demanded are obtained through the following equations:

$$a \cdot b = c \qquad c \cdot d = e \qquad e \cdot f = g$$

$$g/h = i \qquad i/j = k \qquad k/l = m \qquad m \cdot n = D$$

Where:

a = participation rate determined from the primary data
b = population of the area
c = number of participants
d = average frequency of participation as determined from the primary data
e = number of participant days or number of person visits
f = peaking factor
g = number of person visits during peak period
h = number of days during peak period
i = number of visits per day during peak period
j = average party size
k = number of party visits per day during peak period
l = turnover rate
m = number of units of supply demanded per day
n = standard
D = volume of resources demanded per day (Souris River Basin Study Board, 1978:II-18).

The variables f, h, j, i and n were obtained from Table 5. They are the participation rate factors which deserve further attention.

(2) Participation Rate Factors.

a. Peaking factor (f).

Peaking is a concept in recreational jargon which refers to the fact that the use patterns of most recreational facilities exhibit periods during which the facilities are overcrowded and periods during which they are grossly underutilized. For example, if one was to examine the use of campsites, one would be most likely to find that the campsites would be fully utilized on most summer weekends and probably overcrowded during the summer long weekends. During the week (Monday through Thursday) during the summer, one would find under-utilization of campsites. One could see little or no use at all during the winter months.

TABLE 5

PARTICIPATION RATE FACTORS BY ACTIVITY

Activity	Turnover Rate	Average Party Size	Seasonal Activity Days	Peak Days	Peaking Factor	Standard
Camping	0.5/Day	3.50	108	30.9	0.5	1 Site
Picnicking	1.65/Day	3.75	114	32.6	0.5	1 Table
Visiting Historic Sites	16/0.5 hr.	4.00	90	25.7	0.5	1 Party/0.2 Centres
Driving for Pleasure	4/Day	4.00	240	68.6	0.5	1 Car/0.4 km.
Walking or Hiking	40/0.25 hr.	4.00	114	32.6	0.5	1 Party/0.5 km.
Back Packing	2/Day	4.00	114	32.6	0.5	1 Party/0.4 km.
Bicycling	5/Day	2.00	160	45.7	0.45	1 Party/0.03 km.
Horseback Riding	2/Day	4.00	160	45.7	0.45	1 Party/0.8 km.
Swimming	2/Day	4.00	74	21.0	0.45	1 Party/0.61 m.*
Fishing	2/Day	2.00	124	35.4	0.45	1 Boat/3.24 ha.
Hunting	2/Day	2.00	240	35.4	0.45	1 Party/5 ha.
Sailing	2/Day	2.50	108	30.9	0.5	1 Boat/6.1 ha.
Canoeing	2/Day	2.00	108	30.9	0.5	1 Canoe/0.8 km.
Power Boating	4/Day	2.50	108	30.9	0.5	1 Boat/16.2 ha.
Water Skiing	4/Day	3.00	74	21.0	0.5	1 Boat/16.2 ha.
Cross-country Skiing	2/Day	3.00	82	23.4	0.45	1 Party/0.3 km.
Snowshoeing	1/Day	4.00	82	23.4	0.5	1 Party/0.4 km.

*Metres of Beach Front.

TABLE 5 - Continued

Activity	Turnover Rate	Average Party Size	Seasonal Activity Days	Peak Days	Peaking Factor	Standard
Downhill Skiing	1/Day	4.00	82	23.4	0.5	1 Party/0.05 runs
Snowsledding-Tobogganing	2/Day	4.00	82	23.4	0.45	1 Party/0.08 runs
Outdoor Ice Skating	16/Day	3.00	82	23.4	0.5	1 Party/0.2 Rink
Snowmobiling	2/Day	4.00	82	23.4	0.45	1 Snowmobile/1.6 km.
Trail Biking	2/Day	4.00	160	45.7	0.45	1 Party/0.8 km.
Cross-country Biking	2/Day	2.00	160	45.7	0.45	1 Party/5 ha.
Off-road Four Wheel Driving	2/Day	2.00	160	45.7	0.45	1 Party/5 ha.
Golfing	108.26/Day	3.00	114	32.6	0.45	18 Holes/Golf Course
Tennis	16/Day	3.00	114	32.6	0.45	1 Party/Court
Cottaging	1/Day	4.00	240	68.6	0.5	Cottages
Visiting Provincial Parks	4/Day	3.75	240	68.6	0.5	1 Party

Source: Souris River Basin Study Board. 1978. The Souris River Basin Study - The Need and Associated Benefits of Recreation in the Souris River Basin. Supplement 5. Vol. 2. (Table IIi): II-6. Regina: Saskatchewan Government Printing Co.

Peaking is a major problem for planning agencies. It is not economically feasible to develop facilities to cater to peak use since the amount of overcrowding does not necessarily justify the idleness of facilities that results for the rest of the year.

In order to consider the peaking factor in determining demand the planner must not examine the weekend with the highest use but rather the third highest peaking weekend.

> "The third highest peak day is a reasonable selection since it represents a peak period that is reached on more than 70% of Saturdays and Sundays. Therefore the third highest peak Saturday or Sunday was selected, based on Provincial Parks Campground statistics from the Western Administrative Region of the Provincial Parks Branch. The total use that occurred on the 7 days which included the third peak Saturday and Sunday was then calculated; the amount of use occurring on Saturday and Sunday was then calculated; the ratio expressed in percentage terms determined was 45 and represented the 'Peaking Factor'," (Souris River Basin Study Board, 1978:II-11 and 12).

A final peaking factor of 50% was chosen by the study based upon comparisons with other Parks Branch studies. A peaking factor of 45% was assigned to those activities which were more accessible due to the relative closeness of the facilities. A peaking factor of 45% was also given to activities which because of their nature do not require the need for extensive facilities (Table 5).

b. Number of days during peak period (h).

The number of days which are involved in the peak period is determined by dividing the number of seasonal activity days by the number of days within that period which are considered to be at a peaking level. If weekends are considered to be the peak period during the week then two-sevenths or 28.57% of the seasonal activity

days can be considered the peak days in Table 5 or the 'number of days during the peak period' (variable h) in the above equation.

The seasonal activity days refers to the number of days in a year in which an activity will likely take place, other factors considered. Temperature, precipitation, ice-cover duration are the main factors considered (Manitoba. Department of Tourism, Recreation and Cultural Affairs. Research and Data Services Branch, 1975). The seasonal activity days are based upon 30 year averages for the climatic factors above.

c. Average party size (j).

The average number of people pursuing the same activity together as a group is considered to be the average party size. Actual facility capacities would create a false impression in terms of demand for recreational resources. For example, even though a picnic table is 3.75 persons (Table 5). "If the figure 8 were to be used, the area set aside for picnicking would be larger than necessary, and the number of picnic areas and tables established would be fewer than required" (Souris River Basin Study Board, 1978:II-8).

d. Turnover Rate (i).

Turnover rate refers to the ability of a facility to handle more than one person or group of persons in a specified time frame. This concept is influenced by the capacity of a facility. For example, it has been determined that an 18 hole golf course can handle 108.26 golfing parties per day of 3 people per party (Table 5).

e. Standards (n).

Standards are guides which transform number of users into number of facilities. Determining the demand for outdoor recreational

facilities is the major objective of this paper. Determining activity levels in outdoor recreation is a minor objective. There is a major factor which influences standards.

> "A factor included in the standard is a measure of area involved. This simply refers to the area needed for the activity to take place considering comfort levels, the physical carrying capacity of the resource and required infrastructures such as roads, parking areas and washrooms" (Souris River Basin Study Board, 1978:II-13).

This factor allows 'need' comparisons to be made with resources available in a constant unit measure (Souris River Basin Study Board, 1978:II-13).

The Study Board set their standards according to established standards set by agencies responsible for areas which are geographically and demographically similar to Manitoba.

3. Determining Recreation Supply

The supply of facilities for the selected outdoor recreational activities is the second part of the equation for determining 'need'.

A. Listing the Inventory.—The majority of the inventory or supply of facilities is listed in four forms.

(1) Rural Municipalities and Local Government Districts.—

The first form is a provincial listing by rural municipalities and local government districts. Some of the facilities inventory information lends itself to a detailed presentation by community within the rural municipality or local government district. For a listing of rural municipalities and local government districts the reader is referred to Appendix C. Maps of the rural municipalities and local government districts are in Appendix D. The purpose for supplying

the detailed inventory by community and/or municipalities is threefold.

a. Locating facilities.

The first purpose is to allow the reader to readily locate specific sites by community within municipalities.

b. Specific data.

The second purpose is to allow the reader to obtain detailed information with regards to an outdoor recreational facility. The listing is meant to be a source of information for the reader.

c. Regional formulations.

The third purpose is to enable the reader to arrange the supply of information according to any regional formation with ease. All that is necessary is a list of communities and/or municipalities within a new regional breakdown and a tally of facilities which fall within the new regions.

(2) Urban Inventory.--Some of the urban outdoor recreational facilities inventory information, when available, comprises the second form of listing the inventory. This portion of supply is very important especially when one considers that this supply services more than half of the population of the province. The urban listings of facilities are also located in Appendix G of this paper as is their rural counterparts.

(3) Natural Regions.--The third form of listing the facilities inventory is by the natural regions which are discussed above. The main purpose for supplying the inventory information in this form is to facilitate regional analysis of the data which is in itself a purpose of this thesis. Most of the detailed information by natural regions is also available in the Appendix portion of this thesis. For a listing

of the rural municipalities and local government districts by natural regions, the reader is referred to Appendix E. For a map of the natural regions the reader is referred to Figure 6 above.

(4) Provincial Summaries.— The fourth major form of presenting the outdoor recreational facilities inventory is a provincial summary. The provincial summaries are broken down by natural regions. All of these tables are located within the text.

The only form of presentation of facilities which does not fall into one of the above three categories is that of Parks Branch regional listings. The listings associated with picnicking and camping facilities and those associated with size of provincial parks are presented by the Parks Branch regional breakdown along with the above three forms of presentation. These tables will only be presented in the Appendix portion of this thesis. The major function of these listings is to assist park planners in locating facilities according to the Parks Branch regions.

B. Source of Supply Information.—The supply information with regards to outdoor recreational facilities has various sources.

(1) Rural Information.—The facilities for outdoor recreation associated with the rural portion of the province are derived from a number of sources. They are:

Canada. Department of Indian and Northern Affairs. Parks Canada. 1976. Cross-country Skiing and Snowshoeing - Riding Mountain National Park. INA Publication No. QA-R049-000-BB-A1. Ottawa: Queen's Printer.

Canada. Department of Indian and Northern Affairs. Parks Canada. 1978. Trail Guide - Riding Mountain National Park. INA Publication No. QA-R078-000-EE-A1. Ottawa: Queen's Printer.

Canada. Department of Indian and Northern Affairs. Parks Canada. 1979. "Campground and Picnic Area Statistics". (unpublished data). Winnipeg: Parks Canada.

Manitoba. Department of Economic Development and Tourism. 1971. "Facilities Inventory". (Computer printout). Winnipeg: Manitoba Bureau of Statistics.

Manitoba. Department of Mines, Natural Resources and the Environment. Parks Branch. 1979. "Manitoba Trails Guide". (Unpublished manuscript compiled by W. M. Nanka, April 1976, updated by F. A. Merkl, April 1979). Winnipeg: Parks Branch.

Manitoba. Department of Tourism, Recreation and Cultural Affairs. Tourist Branch. 1979. 1979-1980 Manitoba Vacation Guide. Winnipeg: Queen's Printer.

(2) Urban Information.—The major sources for the urban sector of outdoor recreational facilities are:

Manitoba. Department of Economic Development and Tourism. 1971. "Facilities Inventory". (Computer printout). Winnipeg: Manitoba Bureau of Statistics.

Manitoba. Department of Tourism, Recreation and Cultural Affairs. Tourist Branch. 1979. 1979-1980 Manitoba Vacation Guide. Winnipeg: Queen's Printer.

(3) Parks Branch Information.—Much of the Parks Branch information related to outdoor recreational facilities is in the form of unpublished material. The major source of published statistics is:

Manitoba. Department of Mines, Natural Resources and the Environment. Parks Branch. 1979. Manitoba Parks Statistics 1978. Winnipeg: Queen's Printer.

This manual is published on a very limited basis and is available for reference purposes only at the Parks Branch.

For unpublished material the main source is:

Manitoba. Department of Mines, Natural Resources and the Environment. Parks Branch. 1979. "Parklands Compilation". (An unpublished dossier intended for general references only). Winnipeg: Parks Branch.

C. Updating the Inventory.—In most instances the above sources of facility information had to be updated to current levels. Updating the information on the supply of outdoor recreational facilities took the following form.

(1) Rural Supply.—Updates for the rural portion of the supply were received from:

a. Department of Tourism and Cultural Affairs.

The staff responsible for updating the Manitoba Vacation Guide provided much information with regard to deletions and additions of recreational facilities.

b. Municipal Offices.

When in question, the information pertaining to facilities was clarified with staff in the municipal offices.

c. Department of Cultural Affairs and Historical Resources.

Additions and deletions with regards to historical sites and museums in the province were supplied by the Historic Resources Branch.

d. Parks Canada.

The public relations personnel of the Department of Indian and Northern Affairs, Parks Canada supplied further information in the form of pamphlets and in telephone conversations which helped to update data on outdoor recreational facilities within Riding Mountain National Park.

(2) Urban Supply.—The urban supply data were updated with the help of information supplied by:

a. Department of Tourism and Cultural Affairs.

The 1980/81 Manitoba Vacation Guide was in the process of being updated at the time the facility information was being collected for

this thesis. The use of their pre-publication data sheets proved invaluable in updating the outdoor recreational facilities inventory.

b. City of Winnipeg.

The Parks and Recreation Department of the City of Winnipeg was another source of update information. The unpublished "Inventory and Analysis Sheets and Summary Sheets" were a source for added information and changes with regard to facilities within the city's parkland.

c. Department of Cultural Affairs and Historical Resources.

The Historic Resources Branch provided information which updated the historical sites and museums data for the City of Winnipeg.

(3) Provincial Parks Branch.--Where necessary, the data on outdoor recreational facilities within the provincial parks were updated from:

a. Facilities inventory update sheets.

The facilities inventory update sheets are sent out to each provincial campground office on an annual basis. The information on these sheets was used to update the Manitoba Parks Statistics manual for the 1979/80 fiscal year.

b. Regional managers.

Statistics with regard to facilities at provincial wayside parks was not available in the Manitoba Parks Statistics manual. The regional managers of the Parks Branch submitted information concerning numbers, sizes and locations of the wayside parks, new and old, and also listed the facilities located at each site. When necessary, data were confirmed with the field staff (park rangers) via telephone.

c. Parks Branch personnel.

Many people within the main office and the regional offices of the Provincial Parks Branch of the new department of Natural Resources provided information which allowed the information on facilities to be further updated.

D. Calculations for Determining Supply.—The calculations for determining the supply of outdoor recreational facilities are basically very simple. In most cases the statistics generated from the inventory were in a form which related directly to 'volume of resources'. A few facilities had to be transformed by the 'standards' discussed above.

4. Determining Recreation Need

Recreation 'need' is determined by subtracting the demand from the effective supply in order to derive a surplus or deficit of outdoor recreational facilities in the province. A (S) before the 'need' figure represents a surplus of supply over demand or in effect no 'need'; (D) indicates that the demand for the facility exceeds the supply and therefore, represents a deficit.

CHAPTER FOUR

DATA ANALYSIS

The data analysis portion of this thesis will examine the results of the survey sample. It will also examine the results of determining supply and demand, and ultimately the 'need' for outdoor recreational facilities.

1. Survey Sampling Results

As a result of the sampling technique used, there were 2,089 telephone questionnaires completed from the possible 3,174 telephone numbers selected. Information with regard to the actual number of calls placed is not known. These questionnaires represent 0.19% of the population. There were 206 questionnaires which did not have a telephone exchange code in the allotted space or if they did, it was a code which did not match up with a currently used exchange code. Because the exchange code on these 206 questionnaires did not match the list used in Appendix B, the questionnaires could only be used in determining provincial totals. Of the remaining 1,883 questionnaires, there were 926 associated with urban (city of Winnipeg) telephone exchange codes and 957 with rural exchange codes. This represented an urban-rural split of 49.2 - 50.8% which is reasonably close to the actual split of 55.2 - 44.8%. The difference between the received and the actual split is only 6%. For the purpose of this study, this difference will be considered negligible.

The percentage of the total population within each region is very close to the percentage of the total sample within the region (Table 6). But it is questionable whether or not the regional samples taken are significant. For example, the Interlake region has a population of 15,050 and a 0.14% sample size of 21 questionnaires. The percent sample size is similar to the 0.19% obtained for the province but the actual number of questionnaires is much lower. The significance of the provincial sample is also questionable. This is one of the major limitations of the data which is discussed in Chapter Five.

2. Analysis of Demand (Participation)

The data and data analysis for this portion of the thesis is presented in Appendix F in order to keep the factual presentation from obscuring the text.

3. Analysis of Supply (Inventory)

As with the analysis of demand (participation) the analysis of supply (inventory) is presented in appendix form (Appendix G).

4. Analysis of Need

The amount of resources needed is the difference between the amount supplied and the amount demanded. The portion of this thesis that deals with the resources demanded and supplied at the various levels is presented in summarized form in Appendix H, thus restricting this section for the presentation and analysis of the resources needed in the province.

Resources Needed.—As pointed out above, the amount of resources needed is the difference between the amount supplied and the amount

TABLE 6

REGIONAL SURVEY SAMPLE

Regions	Population[1]	% Of Total Population	Sample	% Of Total Sample	% Sample Of Population
Winnipeg	756,447	68.8	1262	67.0	0.17
Winkler	55,896	5.1	98	5.2	0.18
Brandon	119,739	10.9	269	14.3	0.22
Dauphin	58,971	5.3	111	5.9	0.19
Interlake	15,050	1.4	21	1.1	0.14
The Pas	23,837	2.2	43	2.3	0.18
Northern	68,964	6.3	79	4.2	0.11
Manitoba SUB-TOTAL:	1,098,904	100.0	1883*	100.0	0.17*
Manitoba TOTAL:	1,098,904	100.0	2089	100.0	0.19

*These figures do not include the 206 questionnaires which have missing telephone exchange codes.

1. Manitoba. Department of Health and Community Services. Manitoba Health Services Commission. 1979. "Manitoba Population Statistics - June 1979". (Unpublished data sheets). Winnipeg: Manitoba Health Services Commission.

demanded. Table 7 shows all three amounts. A (S) sign in the need column indicates that there is an excess of supply in terms of outdoor recreational facilities by the amount indicated. A (D) sign indicates a deficit.

(1) Camping.—On the whole, for the province of Manitoba, there is a need for an additional 6,229 campsites (Table 7). There are no urban camping facilities. The camping facilities inventory is totally rural (Table 8).

On a regional basis, the Winnipeg region's supply of campsites does not meet the demand by 7,279 campsites (Table 9). This figure is higher than the provincial total demand mainly because the Winkler, Brandon, Dauphin, and Interlake regions combined are oversupplied by 2,775 campsites. The Pas and Northern regions are short by a total of 1,723 campsites (Table 9).

(2) Picnicking.—The province is short of picnicking facilities by the amount of 228 picnic tables (Table 7). The amount of facilities supplied by the urban sector is not available, therefore, any discussion is applicable to only the rural sector (Table 8).

Deficits in picnicking facilities are associated with the Winnipeg, Winkler, Northern and The Pas regions (Table 9). The Northern and Winnipeg regions have the greatest deficits with a shortage of 340 and 295 picnic tables respectively. The Brandon region is oversupplied by 405 tables.

(3) Visiting Historic Sites.—Historic sites and museums in the province are generally in abundance except for the urban sector which is undersupplied by ten museums. The Brandon and Northern regions are also undersupplied by four historic sites and two museums respectively.

TABLE 7

CURRENT NEED OF RECREATIONAL FACILITIES FOR MANITOBA (TOTAL SUPPLY - TOTAL DEMAND)

Activity	Demand[1]	Supply[2]	Need
Camping	22,347 Sites	16,118 Sites	D 6,229 Sites
Picnicking	6,153 Sites	5,925 Sites	D 228 Sites
Visiting Historic Sites	52 Historic Sites	91 Historic Sites	S 39 Historic Sites
	52 Museums	105 Museums	S 53 Museums
Driving for Pleasure	1,150 km.	4,151 km.	S 3,001 km.
Walking or Hiking	425 km.	583 km.	S 158 km.
Back Packing	146 km.	200 km.	S 54 km.
Bicycling	112 km.	N/A	N/A
Horseback Riding	565 km.	684 km.	S 119 km.
Swimming	8,226 metres	30,996 metres	S 22,770 metres
Fishing	24,219 ha.	N/A	N/A
Hunting	12,022 ha.	N/A	N/A
Sailing	3,009 ha.	N/A	N/A
Canoeing	2,957 km.	10,005 km.	S 7,049 km.
Power Boating	25,137 ha.	N/A	N/A
Water Skiing	15,714 ha.	N/A	N/A
Cross-country Skiing	2,179 km.	443 km.	D 1,736 km.
Snowshoeing	308 km.	59 km.	D 249 km.

D: Deficit.
S: Surplus.

TABLE 7 - Continued

Activity	Demand[1]	Supply[2]	Need	
Downhill Skiing	136 Runs	101 Runs	D	35 Runs
Snowsledding-Tobogganing	261 Runs	21 Runs	D	240 Runs
Outdoor Ice Skating	202 Rinks	515 Rinks	S	313 Rinks
Snowmobiling	8,280 km.	932 km.	D	7,348 km.
Trail Biking	119 km.	N/A		N/A
Cross-country Biking	792 ha.	N/A		N/A
Off-road Four Wheel Driving	730 ha.	N/A		N/A
Golfing	1,519 Holes	1,008 Holes	D	511 Holes
Tennis	389 Courts	415 Courts	S	26 Courts
Cottaging	3,725 Cottages	18,061 Cottages	S	14,336 Cottages
Visiting Provincial Parks	Unknown	1,325,496 ha.		Unknown

D: Deficit.
S: Surplus.

Source: 1. Table 83.
2. Table 86.

TABLE 8

CURRENT NEED OF RESOURCES PER ACTIVITY (RURAL-URBAN BREAKDOWN)

Activity		Resources Needed					
		Provincial[1]		Urban[2]		Rural[2]	
Camping	(Sites)	D	6,229	N/A		D	6,229
Picnicking	(Sites)	D	228	Unknown		D	228
Visiting Historic Sites	(Historic Sites)	S	39	0		S	39
	(Museums)	S	53	D	10	S	63
Driving for Pleasure	(km.)	S	3,001	Unknown		S	3,001
Walking or Hiking	(km.)	S	158	Unknown		S	158
Back Packing	(km.)	S	128	N/A		S	128
Bicycling	(km.)		N/A	N/A			N/A
Horseback Riding	(km.)	S	119	Unknown		S	119
Swimming	(metres of beach)	S	22,770	N/A		S	22,770
Fishing	(ha.)		N/A	N/A			N/A
Hunting	(ha.)		N/A	N/A			N/A
Sailing	(ha.)		N/A	N/A			N/A
Canoeing	(km.)	S	7,049	Unknown		S	7,049
Power Boating	(ha.)		N/A	N/A			N/A
Water Skiing	(ha.)		N/A	N/A			N/A
Cross-country Skiing	(km.)	D	1,736	Unknown		D	1,736
Snowshoeing	(km.)	D	249	Unknown		D	249

D: Deficit.
S: Surplus.

TABLE 8 - Continued

Activity		Resources Needed					
		Provincial[1]		Urban[2]		Rural[2]	
Downhill Skiing	(Runs)	D	35		N/A	D	35
Snowsledding-Tobogganing	(Runs)	D	240	D	136	D	104
Outdoor Ice Skating	(rinks)	S	313	S	178	S	134
Snowmobiling	(km.)	D	7,348		N/A	D	7,348
Trail Biking	(km.)		N/A		N/A		N/A
Cross-country Biking	(ha.)		N/A		N/A		N/A
Off-road Four Wheel Driving	(ha.)		N/A		N/A		N/A
Golfing	(holes)	D	511	D	616	S	105
Tennis	(courts)	S	26	S	133	D	107
Cottaging	)	S	14,336		N/A	S	14,336
Visiting Provincial Parks	(ha.)		Unknown		Unknown		Unknown

D: Deficit.
S: Surplus.

Source: 1. Table 7.
2. Table 87 Minus Table 84.

TABLE 9

CURRENT NEED OF RESOURCES PER ACTIVITY (REGIONAL BREAKDOWN)

Activity		Winnipeg Region	Winkler Region	Brandon Region	Dauphin Region	Interlake Region	The Pas Region	Northern Region
Camping	(Sites)	D 7,279	S 319	S 733	S 1,146	S 578	D 260	D 1,463
Picnicking	(Sites)	D 295	D 15	S 405	S 15	S 90	D 68	D 340
Visiting Historic Sites	(Historic Sites)	S 17	S 9	D 4	S 5	S 1	S 2	S 2
	(Museums)	S 8	S 13	S 21	S 11	S 2	0	D 2
Driving for Pleasure	(km.)	S 673	S 202	S 812	S 640	S 86	S 414	S 174
Walking or Hiking	(km.)	D 119	D 25	S 142	S 185	S 6	D 12	D 20
Back Packing	(km.)	D 34	0	S 65	S 104	0	D 1	D 6
Bicycling	(km.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Horseback Riding	(km.)	D 138	D 34	S 164	S 147	D 17	0	D 7
Swimming	(metres of beach)	S 13,480	S 278	S 2,377	S 3,672	S 2,163	S 888	D 88
Fishing	(ha.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hunting	(ha.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sailing	(ha.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Canoeing	(km.)	S 506	D 11	S 12	D 92	0	S 621	S 6,013
Power Boating	(ha.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Water Skiing	(ha.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cross-country Skiing	(km.)	D 1,392	D 115	D 75	S 3	D 18	D 26	D 112
Snowshoeing	(km.)	D 189	D 1	0	D 2	S 7	D 2	D 61

D: Deficit.
S: Surplus.

TABLE 9 - Continued

Activity		Winnipeg Region	Winkler Region	Brandon Region	Dauphin Region	Interlake Region	The Pas Region	Northern Region
Downhill Skiing	(Runs)	D 133	S 15	S 10	S 20	0	S 1	D 2
Snowsledding-Tobogganing	(Runs)	174	11	24	10	1	6	17
Outdoor Ice Skating	(rinks)	S 217	S 30	S 19	S 22	S 6	S 17	S 2
Snowmobiling	(km.)	D 3,520	D 810	D 1,273	D 632	D 294	D 184	D 635
Trail Biking	(km.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cross-country Biking	(ha.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Off-road Four Wheel Driving	(ha.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Golfing	(holes)	D 565	S 73	S 120	S 55	S 27	D 30	D 191
Tennis	(courts)	S 24	D 20	S 35	S 7	S 2	0	D 21
Cottaging	(Cottages)	S 10,605	S 73	S 1,379	S 633	S 718	S 935	D 7
Visiting Provincial Parks		N/A	N/A	N/A	N/A	N/A	N/A	N/A

D: Deficit.

S: Surplus.

Source: Table 88 Minus Table 85.

(4) Driving for Pleasure.—There are a total of 3,000 kilometers of designated driving tours in the province which are surplus (Table 7). The rural portion makes up the majority of the inventory (Table 8). Every region is in a state of oversupply with the Brandon and Winnipeg regions having the most excess (Table 9).

(5) Walking or Hiking.—The inventory of walking trails within the city of Winnipeg is not known but in the province there is an oversupply of walking and hiking trails by 158 kilometers. The Brandon, Dauphin and Interlake regions exhibit surpluses totalling more than 330 kilometers. The remaining regions exhibit a deficit totalling more than 175 kilometers. The Dauphin region has the highest number of kilometers of trails in oversupply. The Winnipeg region has the most need for additional trails (Table 9).

(6) Back Packing.—There is an excess of 127.91 kilometers over that of demand of back packing or long hiking trails (over 20 km. in length) (Table 7). The supply is totally within the rural sector and the oversupply is associated mainly with the Riding Mountain National Park area. The Brandon and Dauphin regions reflect this fact in their combined total of oversupply of almost 170 kilometers. The Winnipeg region exhibits a deficit of 34 kilometers, the highest deficit (Table 9).

(7) Bicycling.—The current need for bicycle paths, routes or trails could not be calculated because the supply of such was not available. Only the demand figures are available as they were determined from the questionnaire.

(8) Horseback Riding.—Horseback riding is strictly a rural based activity with a surplus of trails in the province of almost 120

kilometers (Table 7). Even though this surplus exists, it is localized in the Brandon and Dauphin regions. All the other regions show a deficit with the Winnipeg region needing more than 130 kilometers of horseback riding trails (Table 9).

(9) Swimming.—There is in the province of Manitoba an over-abundance of serviced beaches according to the factors used to determine supply and demand. There exists a surplus in every region except the Northern region where they are short of less than a 100 metres of serviced beaches.

(10) Fishing.—As mentioned above, the supply of fishing waters in the province is difficult to inventory and as a result the current need for fishing waters could not be calculated.

(11) Hunting.—An inventory on hunting lands in the province was not readily available, therefore, the 'need' for hunting lands could not be obtained.

(12) Sailing.—The inventory on sailing waters was not available and as a result the current need for sailing waters was not assessed.

(13) Canoeing.—Canoeing is the only water-based activity aside from swimming for which an inventory was obtained. Most of the water-based activities are concerned with the square area of water which is difficult to assess whereas canoeing is concerned with the length of designated canoe routes which are more readily obtainable.

There appears to be an excess of canoe routes in the province (Table 7). The urban portion of the canoe routes is incorporated with the rural inventory (Table 8). The greatest excess is located in the Northern region which has 85% of the oversupply (Table 9). The Pas and Winnipeg regions are second and third with 8.8% and 7.2% respectively.

The deficits associated with the Dauphin and Winkler regions are negligible. The demand for these facilities is low (Table 85).

(14) Power Boating.—Power boating is one of the water-based activities for which the area of water has to be known in order to be inventoried and used in a 'need' analysis. Because the area of boating waters is unknown, a 'need' analysis is impossible.

(15) Water Skiing.—The hectares of water skiing waters is not known, therefore, a 'need' analysis can not be undertaken.

(16) Cross-country Skiing.—According to the 'demand' and 'supply' calculations there is a total provincial 'need' for an additional 1,736 kilometers of designated cross-country ski trails (Table 7). There is a generous supply of trails in the urban sector which has not been inventoried and would affect the need for rural supplies of trails in the Winnipeg region close to the city of Winnipeg (Table 8).

The Winnipeg region shows a deficit of almost 1,400 kilometers of cross-country ski trails (Table 9). That is more than three times as much as the current supply in the whole province. The amount of urban inventory may reduce the 'need' figure somewhat but probably not to the 'no need' level. The Winkler and Northern regions each show a 'need' of just over a hundred kilometers of trails each (Table 9). The Dauphin region is the only region which has a surplus but it is not of a great amount.

(17) Snowshoeing.—There is a need for almost 250 kilometers of designated snowshoeing trails in the province of Manitoba (Table 7). There are no known trails within the defined urban sector (Table 8). Most of the deficit is associated with the Winnipeg region (75.9%) (Table 9). The second most deficient region is the Northern region

which shows a deficit of 61 kilometers or 24.7% of the total provincial deficit.

(18) Downhill Skiing.—In the province of Manitoba there is a deficit of 35 ski runs (Table 7). There are no substantial downhill ski runs in the urban sector (Table 8). The Winnipeg region exhibits the greatest deficit which is almost 4 times as great as the deficit for the whole province. This stems from the fact that the Winkler, Brandon, Dauphin and The Pas regions all show a surplus which in effect lessens the severity of the provincial deficit.

(19) Snowsledding-Tobogganing.—There is a demand for 261 tobogganing runs but there are only 21 designated runs supplied (Table 7). The runs are supplied by the city of Winnipeg and are man-made tobogganing tracks which take up very little land as opposed to the open area sledding associated with natural runs. There exists a need for an additional 240 runs in the province.

(20) Outdoor Ice Skating.—As far as outdoor ice skating rinks are concerned, there appears to be a surplus. The urban sector has 57% of the total provincial surplus (Table 8). The Winnipeg region has the most surplus of all the regions with 69.5% of the total excess (Table 9). None of the regions show a deficit.

(21) Snowmobiling.—According to the demand for snowmobiling facilities and the supply of same, there is a need for an additional 7,350 kilometers of designated snowmobile trails (Table 7). That is to say, there would be a need for these trails if one was assuming that the demand was in fact related to designated trails. Much of the current use takes place in areas other than those designated. If snowmobile use was banded to only designated trails then it would be

safe to say that such a 'need' existed. The figures may not show actual 'need' but they can be used to show where the most need exists in regional comparisons.

Almost 50% of the total deficit is associated with the Winnipeg region, 17% with the Brandon region, and 11% with the Winkler region (Table 9). All regions show a deficit.

(22) Trail Biking.--The inventory on trail biking facilities was not available, therefore, the 'need' could not be calculated (Table 7). If one assumes that there are no trail bike trails in the province then the demand figures as calculated from the telephone survey and the participation rate factors would apply as the 'need' figures. In that situation there would be 119 kilometers of trails needed in the province with 84.3% of the trails needed in the Winnipeg region (Table 85).

(23) Cross-country Biking.—As in trail hiking, the inventory is not available. Based on participation in non-designated areas there is a need for almost 800 hectares of cross-country biking areas in the province (Table 7). The need is split 60/40 between the Winnipeg and Northern regions respectively.

(24) Off-road Four Wheel Driving.—Only the demand figures are known for this activity. If there is no 'supply' then the 'demand' becomes the 'need'. Based on this assumption there is a 'need' for 730 hectares of land for off-road four wheel driving. The Dauphin, Northern and Winnipeg regions are the only regions which show a 'need' (demand). The 'need' shown is 51.7%, 37.8%, and 10.5% of the total provincial 'need' respectively.

(25) Golfing.--For the outdoor recreational activity of golfing there is a need of an additional 511 holes in the province (Table 7).

The problem is worsened when one realizes that there exists a surplus in the rural sector thus leaving the urban sector with a deficit which is greater than the provincial deficit.

The Winnipeg regional deficit is 565 golfing holes. The Northern region is short of almost 200 holes whereas the Brandon, Winkler and Dauphin regions are oversupplied by a combined total of 275 holes.

(26) Tennis.—On a provincial total basis there is a surplus of tennis courts but this surplus is associated with only the rural sector. The urban sector is short of 133 tennis courts (Table 8). There are many surplus tennis courts in the Winnipeg region outside the city of Winnipeg because the region ends up with a surplus of 24 courts even with the urban deficit of 133 courts. The Winkler and Northern regions are each short 20 courts and the Brandon region has an excess of 34 courts.

(27) Cottaging.—It appears that there is a surplus of over 14,000 cottages in the province of Manitoba. The participation rate factors as pertaining to cottaging in Table 5 must not be accurate. There could not possibly be an oversupply of that magnitude.

On a regional basis there is a surplus in all regions except for the Northern region. They are only short of approximately 7 cottages. The Winnipeg region has 74% of the surplus using the factors listed in Table 15. The Brandon, The Pas, Interlake and Dauphin regions have 9.6%, 6.5% 5.0% and 4.4% of the provincial surplus.

(28) Visiting Provincial Parks.—In the case of visiting provincial parks or for that matter, any park, there are no clear cut standards and participation rate factors which could be used to establish the amount of land needed to satisfy the demand. The amount of

supply or inventory is known but the demand is not. What is known is that there are some 642 thousand participants who visit provincial parks at an average rate of 6.8 times per year for a total of 4.3 million person visits or participant days per year (Table 84). On the supply side there are over 1.3 million hectares of urban, provincial and federal parkland (Tables 78 and 81). The problem lies in relating this supply with the demand in order to calculate the need for more or less parkland.

Priorities can be set according to participation rates and by need. Table 10 ranks the outdoor activities according to participation by person visits and according to need by person visits. The current need figures were converted from a measurement of resources to one of person days or visits using the 'need table' (Table 7) and the participation rate factors of average party size, turnover rate, and standards (Table 5). For example, camping shows a need for an additional 6,229 campsites (Table 7). This figure is converted to person visits by multiplying it by the average party size (3.5), the turnover rate (0.5) and the standard (1) as determined from Table 5 resulting in the demand for campsites being greater than the supply by over 10,900 person visits.

Bicycling would be at the top of the 'need' list if there were no facilities. Snowmobiling would be second only if the users snowmobiled on designated trails. This high ranking is probably largely due to the pursuit of snowmobiling on farms, and general open space areas. The next activity on the 'need' list is cross-country skiing. As suggested earlier, the main causes for the high deficit are the lack of information from the urban sector, the high number of urban parti-

cipants [58.9% of the provincial total, (Table 27)], and the high 'need', associated with the Winnipeg region [80.29% of the province's total 'need', (Table 9)]. The point is that there are many urban participants and the urban supply of cross-country ski trails has not been inventoried.

Fishing is fourth on the need list but once again, the need was calculated without the inventory information. Snowsledding-tobogganing, power boating and water skiing have either an inadequate inventory or no inventory of facilities (Table 10).

Camping is the first activity on the 'need' list which has a fairly accurate inventory. There is a deficit of more than 10,000 person visits or in terms of facilities, there is a deficit of more than 6,000 campsites.

Golfing is the second activity on the 'need' list which also has a more or less accurate inventory. There is a deficit of more than 9,000 person visits or an equivalent of over 500 holes. Golfing is thirteenth on the participation list whereas camping is in seventh place (Table 10). Golfing is therefore second to camping, both in terms of 'need' and in the number of participants.

Downhill skiing and snowshoeing are the next activities on the 'need' list which have a complete inventory. They both show fewer participant days than camping or golfing. But picnicking which has almost half the deficit in terms of person visits than downhill skiing or snowshoeing has almost 5 times as many participants in terms of person visits (Table 10). As a result it is suggested that the deficit in picnicking have a higher priority than either downhill skiing or snowshoeing.

TABLE 10

ACTIVITIES RANKED ACCORDING TO PARTICIPATION AND NEEDS

Participation		Need		
Activity	Person Visits[1]	Activity	Person Visits	
Walking or Hiking	8,868,320	*Bicycling	D	37,382
Driving for Pleasure	6,310,258	Snowmobiling	D	36,738
Swimming	5,034.442	Cross-country Skiing	D	34,714
Visiting Provincial Parks	4,374,137	*Fishing	D	29,900
Bicycling	3,796,335	Snowsledding-Tobogganing	D	26,056
Picnicking	2,482,193	*Power Boating	D	15,516
Camping	2,416.792	*Water Skiing	D	11,640
Fishing	2,352,145	Camping	D	10,900
Outdoor Ice Skating	2,271,725	*Hunting	D	9,618
Snowmobiling	2,152,674	Golfing	D	9,227
Cottaging	2,044,377	Downhill Skiing	D	2,802
Cross-country Skiing	2,039,238	Snowshoeing	D	2,489
Golfing	1,986.115	*Sailing	D	2,467
Snowsledding-Tobogganing	1,354,920	Picnicking	D	1,423
Tennis	1,353,653	*Trail Biking	D	1,191
Power Boating	958,912	*Cross-country Biking	D	633
Canoeing	913,558	*Off-road Four Wheel Driving	D	584
Visiting Historic Sites	854,213	Horseback Riding	S	1,189
Hunting	756,595	Tennis	S	1,235
Horseback Riding	573,896	Back Packing	S	2,558
Downhill Skiing	509,924	Visiting Historic Sites	S	12,503
Water Skiing	488,878	Canoeing	S	35,243
Back Packing	190,243	Walking or Hiking	S	50,636
Sailing	152,433	Cottaging	S	57,344
Snowshoeing	144,064	Outdoor Ice Skating	S	75,062

*Need based on 'No Supply' or 'Supply Not Inventoried'.
D: Deficit. S: Surplus.

TABLE 10 - Continued

Participation		Need	
Activity	Person Visits[1]	Activity	Person Visits
Trail Biking	121,003	Driving for Pleasure	S 120,047
Cross-country Biking	64,308	Swimming	S 298,623
Off-road Four Wheel Driving	59,341	Visiting Provincial Parks	Unknown

D: Deficit.

S: Surplus.

[1]Source: Table 22.

The remaining activities having a complete inventory fall within the surplus portion of the 'need' list.

5. Projection Analysis

This section of the thesis deals with projecting the need for outdoor recreational facilities based upon the demand and supply projections in Appendix I.

Need Projections.—One approach to projecting the need for outdoor recreational facilities is to examine the projected demand in light of current supply. Table 11 subtracts each of the projected demand figures from the current supply for each activity. This in effect will reveal the amount of facilities needed in future years based upon current supply and upon the demand figures increasing proportionately with increasing population levels. Based upon the formula used to project the 'demand' and 'supply' figures, the population levels for the projected years for the province of Manitoba would be:

1980 : 1,142,860
1990 : 1,759,380
2030 : 4,032,566

(1979: 1,098,904 - Manitoba Health Services Commission. Projections Calculated as in Table 90).

In order to calculate the amount of projected 'need' for any region and for any activity, all that is necessary is to compute the regional percentage of the total current 'need' using Table 9. The resulting percentage is used as the regional percentage of the total projected need and applied to Table 11. This in turn will reveal the amount of 'need' for a particular region for a particular activity.

The 'need' for outdoor recreational facilities can also be projected along the lines of person visits (Table 12). There is a deficit in most activities by 1990. Considering the lack of accurateness in

TABLE 11

PROVINCIAL NEED PROJECTIONS[1]

Activity		1979	1980	1990	2030
Camping	(Sites)	D 6,229	D 7,123	D 19,660	D 65,886
Picnicking	(Sites)	D 228	D 475	D 3,939	D 16,660
Visiting Historic Sites	(Historic Sites)	S 39	S 37	S 8	D 100
	(Museums)	S 53	S 51	S 22	D 86
Driving for Pleasure	(km.)	S 3,001	S 2,955	S 2,310	D 68
Walking or Hiking	(km.)	S 158	S 141	D 97	D 977
Back Packing	(km.)	S 128	S 122	S 40	D 262
*Bicycling	(km.)	D 112	D 117	D 180	D 412
Horseback Riding	(km.)	S 119	S 96	D 221	D 1,390
Swimming	(metres)	S 22,770	S 22,441	S 17,826	S 810
*Fishing	(ha.)	D 24,219	D 25,188	D-38,776	D 88,875
*Hunting	(ha.)	D 12,022	D 12,503	D 19,248	D 44,117
*Sailing	(ha.)	D 3,009	D 3,130	D 4,818	D 11,043
Canoeing	(km.)	S 7,049	S 6,930	S 5,272	D 844
*Power Boating	(ha.)	D 25,137	D 26,142	D 40,244	D 92,242
*Water Skiing	(ha.)	D 15,714	D 16,343	D 25,159	D 57,665
Cross-country Skiing	(km.)	D 1,736	D 1,823	D 3,045	D 7,552
Snowshoeing	(km.)	D 249	D 261	D 434	D 1,071
Downhill Skiing	(Runs)	D 35	D 40	D 117	D 398
*Snowsledding-Tobogganing	(Runs)	D 261	D 271	D 417	D 956
Outdoor Ice Skating	(rinks)	S 313	S 305	D 191	D 227
Snowmobiling	(km.)	D 7,348	D 7,679	D 12,324	D 29,451
*Trail Biking	(km.)	D 119	D 124	D 191	D 437
*Cross-country Biking	(ha.)	D 792	D 823	D 1,267	D 2,905
*Off-road Four Wheel Driving	(ha.)	D 730	D 760	D 1,169	2,681

D: Deficit. S: Surplus.

TABLE 11 - Continued

Activity	1979	1980	1990	2030
Golfing (holes)	D 511	D 572	D 1,425	D 4,568
Tennis (courts)	S 26	S 10	D 208	D 1,014
Cottaging (cottages)	S 4,336	S 14,187	D12,097	S 4,391
Visiting Provincial Parks (ha.)	N/A	N/A	N/A	N/A

[1]Calculated as follows: Effective Supply from Table 7 minus the projected demand from Table 10.

*Assuming current supply is Nil. Figures presented are the projected demand figures.

D: Deficit.

S: Surplus.

TABLE 12

PROJECTION OF NEED BY PERSON VISITS/ACTIVITY

Activity	1979	1980	1990	2030
*Bicycling	- 37,382	- 38,878	- 59,851	-137,178
Snowmobiling	- 36,738	- 38,393	- 61,619	-147,254
Cross-country Skiing	- 34,714	- 36,456	- 60,903	-151,038
*Fishing	- 29,900	- 31,096	- 47,871	-109,722
Snowsledding-Tobogganing	- 26,056	- 27,098	- 41,716	- 95,616
*Power Boating	- 15,516	- 16,137	- 24,842	- 56,939
*Water Skiing	- 11,640	- 12,106	- 18,636	- 42,714
Camping	- 10,900	- 12,465	- 34,405	-115,300
*Hunting	- 9,618	- 10,002	- 15,398	- 35,293
Golfing	- 9,227	- 10,324	- 25,705	- 82,417
Downhill Skiing	- 2,802	- 3,237	- 9,342	- 31,852
Snowshoeing	- 2,489	- 2,612	- 4,339	- 10,707
*Sailing	- 2,467	- 2,565	- 3,949	- 9,051
Picnicking	- 1,423	- 2,938	- 24,308	-103,047
*Trail Biking	- 1,191	- 1,239	- 1,908	- 4,372
*Cross-country Biking	- 633	- 659	- 1,014	- 2,324
*Off-road Four Wheel Driving	- 584	- 608	- 936	- 2,144
Horseback Riding	+ 1,189	+ 963	- 2,208	- 13,897
Tennis	+ 1,235	+ 487	- 9,996	- 48,648
Back Packing	+ 2,558	+ 2,441	+ 805	- 5,231
Visiting Historic Sites	+ 12,503	+ 11,838	+ 2,515	- 31,862
Canoeing	+ 35,243	+ 34,651	+ 26,358	- 4,223
Walking or Hiking	+ 50,636	+ 45,196	- 31,113	-312,479
Cottaging	+ 57,344	+ 56,748	+ 48,388	- 17,564
Outdoor Ice Skating	+ 75,062	+ 73,120	+ 45,887	- 54,524
Driving for Pleasure	+120,047	+118,207	+ 92,403	- 2,738
Swimming	+298,623	+294,307	+233,783	+ 10,621
Visiting Provincial Parks	Unknown	Unknown	Unknown	Unknown

-: Deficit. +: Surplus.

some of the standards and participation rate factors (i.e. cottaging), it is still safe to assume that there will be plenty of facilities by 1990 for the activities of canoeing, driving for pleasure and swimming. The surpluses associated with visiting historic sites, cottaging, and outdoor ice skating for the year 1990 are questionable. This question is dealt with in the data limitations section of this study.

6. Analysis of Latent Demand

As outlined above, 'latent demand' is demand which is present but not active. It is demand which has the 'potential' to develop into something active. Section 'D' of the questionnaire tries to deal with latent demand (Appendix A). The respondents of the survey were given an opportunity to mention activities they would participate in if the facilities were provided. More than 96% of the 2,089 respondents failed to give a response to the question. The majority of those that did respond indicated only one activity. Only a few indicated two activities. There were a total of 27 activities mentioned for a total of 66 times (Table 13). Tennis was mentioned 12 times with skating running second with only half that count. Jogging trails and playgrounds were mentioned by 5 respondents each. In total, the response rate was very poor and warrants little discussion.

7. Analysis of Additional Outdoor Activities

Section 'C' of the questionnaire allows the respondents to add to the list of activities of Section 'A' and offer frequency of participation information (Appendix A). Table 14 presents an urban-rural breakdown of participation rates and average annual frequency of participation for the additional activities mentioned by the respondents.

TABLE 13

ADDITIONAL ACTIVITIES IF FACILITIES PROVIDED

Activity Mentioned by Respondent	Number of Respondents		
	Rural	Urban	Total
Badminton	-	2	2
Baseball	1	-	1
Bicycle (paths)	-	1	1
Canoeing (rentals)	1	-	1
Cross-country Skiing (trails)	1	1	2
Curling	-	1	1
Dog Team Racing	-	1	1
Downhill Skiing	1	2	3
Family Type Sports	-	1	1
Hang Gliding	-	3	3
Horseback Riding	1	3	4
Horseshoes	-	1	1
Jogging (trails)	-	5	5
Lawn Bowling	-	2	2
Motor Biking (trails)	1	-	1
Playgrounds	2	3	5
Sailing	-	2	2
Scuba Diving	-	1	1
Skating	3	3	6
Sleigh Rides	-	1	1
Soccer	2	-	2
Swimming	-	3	3
Tennis	4	8	12
Volleyball	1	-	1
Walking (trails)	1	1	2
Water Skiing	1	-	1
Winter Sports (Warming Shelters)	-	1	1

TABLE 14

DEMAND

PARTICIPATION AND FREQUENCY OF OTHER OUTDOOR ACTIVITIES

Activity	Manitoba		Urban Manitoba		Rural Manitoba	
	Participation Rate (%)	Average Frequency	Participation Rate (%)	Average Frequency	Participation Rate (%)	Average Frequency
Baseball	23.91	10.75	20.00	10.89	31.43	6.68
Gardening	19.57	3.47	11.58	8.18	34.29	1.46
Broomball	7.61	3.21	12.63	2.08	2.86	10.00
Soccer	6.52	16.33	8.42	11.00	1.43	30.00
Jogging	6.52	8.25	5.26	7.40	8.57	10.33
Football	4.89	12.22	5.26	18.00	4.29	6.67
Lawn Bowling	3.80	12.43	3.16	17.33	2.86	NR
Hockey	3.26	9.33	2.11	6.50	4.29	6.00
Roller Skating	2.17	8.75	3.16	11.67	1.43	NR
Ice Fishing	2.17	6.00	2.11	7.00	1.43	10.00
Horseshoes	1.63	16.67	1.05	NR	1.43	30.00
Photography	1.63	10.67	3.16	10.67	-	-
Volleyball	1.63	9.00	1.05	NR	1.43	15.00
Hang Gliding	1.63	3.33	3.16	3.33	-	-
Badminton	1.63	1.00	-	NR	2.86	NR
Croquet	1.09	18.00	1.05	6.00	-	-
Sky Diving	1.09	14.00	1.05	NR	-	-
Basketball	1.09	12.50	1.05	NR	-	-
Wind Surfing	1.09	2.50	2.11	2.50	-	-

TABLE 14 - Continued

Activity	Manitoba		Urban Manitoba		Rural Manitoba	
	Participation Rate (%)	Average Frequency	Participation Rate (%)	Average Frequency	Participation Rate (%)	Average Frequency
Snorkling	0.54	30.00	1.05	30.00	-	-
Cricket	0.54	25.00	1.05	25.00	-	-
Lawn Darts	0.54	15.00	1.05	15.00	-	-
Festivals	0.54	5.00	1.05	5.00	-	-
Climbing	0.54	3.00	1.05	3.00	-	-
Scuba Diving	0.54	3.00	1.05	3.00	-	-
Auto Racing	0.54	NR	1.05	NR	-	-
Barbecuing	0.54	NR	1.05	NR	-	-
Bird Watching	0.54	NR	1.05	NR	-	-
Dog Sledding	0.54	NR	1.05	NR	-	-
Motorcycling	0.54	NR	1.05	NR	-	-
Nature Study	0.54	NR	1.05	NR	-	-

NR - No Response.

Almost 93% of the survey respondents did not offer any additional activities. The participation rates are indicative of only the respondents who offered additional information. Of the 157 respondents who listed additional outdoor activities, almost 24% indicated that baseball was an activity which they pursued that was not included in Section 'A' of the questionnaire. Those that played baseball, did so at an average rate of 10.75% times per year. Thirty-one percent of the rural respondents indicated baseball as an additional activity as compared to only 20% for the urban respondents but the urban respondents participated 4 times a year more than the rural respondents.

Gardening was the second favorite outdoor activity which was not included in the outdoor recreational activities of Section 'A' of the questionnaire. Gardening was mentioned by 19.6% of the respondents at an average frequency rate of 3.5 times per year. Almost 3 times as many rural respondents pursue gardening as do urban respondents but they do so at an average frequency rate which is less than 18% of the urban rate.

Broomball was the third highest activity and was favoured by the urban respondents. The participation rates decrease rapidly and cannot be considered representative for the entire population. The participation rates are probably underestimated. It would be a safe assumption that if the additional activities mentioned by the 157 respondents were brought to the attention of the other 1,932 respondents, the participation rates would increase.

The frequency responses are accurate for the few people responding to the question but they do not reflect the frequencies of the participants who it is assumed failed for whatever reason to respond to the question.

8. Analysis of Facility Adequateness

Section 'B' of the questionnaire deals with the question of facility adequateness (Appendix A). The respondents were given a choice of adequate, inadequate and indifferent as responses to the facilities which they used. Table 92 presents a provincial and a rural-urban analysis of the responses. Table 93 contains a regional breakdown of the responses. There are only a few respondents from the Interlake region thus any inferences would be unwarranted.

A. Levels of Inadequateness.—Table 15 presents the different levels or categories of facility inadequateness according to the percentage of respondents indicating inadequate facilities. These levels will be used in the discussion of the adequacy of the facilities for each of the selected activities.

TABLE 15

LEVELS OF FACILITY INADEQUATENESS

Level	Percent Inadequate	Level of Importance or Concern
4	> 30%	Major
3	20% - 30%	Intermediate
2	10% - 19%	Minor
1	< 10%	Negligible

B. Facility Adequateness per Activity.

(1) Camping.—Level three inadequacy is associated with the number and variety of camping areas, the number of campsites, and with the shower facilities at campgrounds for the provincial percentages (Table 92). Camping sanitary facilities are at the high end of level

two and camping information and area maps are at the low end of level two. Camping fees are level one.

The only facility in the rural-urban analysis that deviates from the provincial percentages is the sanitary facilities. The urban sector rates the sanitary facilities at a level 3 whereas the rural portion rate is at level 2.

On a region basis, the Winkler, Dauphin, Northern and The Pas regions are all at level 4 with regard to the number and variety of camping areas (Table 93). The Winnipeg region is at level three and the Brandon region at level two. Most of the regions are at level 3 with regard to the number of campsites and camping sanitary facilities. The Winnipeg and Winkler regions indicate level 4 concern and the Dauphin and Northern regions show a level 3 concern with regard to showering facilities. All other facilities associated with camping are generally at level 2 or lower for most of the regions.

(2) Picnicking.—There are no level four concerns in connection with picnicking facilities on a provincial or a rural-urban basis (Table 92). But there is a level three concern associated with the number of picnic tables and shelters. The rural and urban sectors do not differ much from the provincial trend.

On a regional basis there is a level 4 concern in the Dauphin and The Pas regions in connection with the number and variety of picnic areas and in the Dauphin and Northern regions for the number of picnic tables and shelters (Table 93). Almost one-half of the people in the Northern region that participate in picnicking feel that the number of picnic tables and shelters is inadequate.

(3) Visiting Historical Sites.—The facilities associated with visiting historical sites are considered to be at a level one concern right across the board (Tables 92 and 93).

(4) Driving for Pleasure.—There does not appear to be any concern with regard to the adequacy of the facilities associated with driving for pleasure.

(5) Walking or Hiking for Pleasure.—On a provincial and rural-urban basis, the concern for the facilities is minimal but on a regional basis, the Northern region has a level 3 concern associated with the adequacy of hiking trail information and maps and with lookout points and towers (Tables 92 and 93). The remaining regions are at a level 1 or 2 concern.

(6) Back Packing.—The responses which applied to walking and hiking also apply to back packing.

(7) Bicycling.—The urban sector is more dissatisfied with bicycling facilities than is the rural sector but the variety of bicycle paths which is at the third level. This concern is also brought forth in the Winnipeg regional analysis. Only 14% of the Northern region's bicyclists that were surveyed felt that the bicycle path information and maps were adequate. The remaining bicyclists in the Northern region were evenly split between inadequate responses and responses of indifference (Tables 92 and 93).

(8) Horseback Riding.—The greatest concern associated with horseback riding is with the Northern region. The concern is with the number and variety of horseback riding trails and it is in the level 4 category. There is level 3 concern connected with both facilities

for the provincial, urban, and the Winnipeg region percentages of inadequacy (Tables 92 and 93).

(9) Beach Swimming.—Serviced beaches, swim changing facilities and beach supervision and safety measures are generally felt to be of the 3rd level of inadequateness right across the board except for the Winkler and Northern regions where the level fluctuates between the 3rd and 4th categories (Tables 92 and 93). One other exception is the 4th level concern recorded for the Dauphin region in regard to beach supervision and safety measures.

(10) Fishing.—Respondents seem to feel indifferent about the fishing facilities. The only exception is Winkler's 3rd level concern for marinas for fishing boats and equipment rentals.

(11) Hunting.—There were no facilities associated with hunting included in the questionnaire.

(12) Sailing.—Generally there seems to be little concern shown for the sailing facilities selected for the questionnaire. But because of the very low participation rates, one must use caution in analyzing the data. Inferential statements may be highly inaccurate.

(13) Canoeing.—The facilities listed for canoeing show negligible amounts of concern about inadequacy among the canoeists (Tables 92 and 93).

(14) Power Boating.—Most the the people that participate in power boating feel that the facilities listed are adequate. One exception is the Dauphin region which shows that 50% of the participants feel that the launching ramps are inadequate (Table 93).

(15) Water Skiing.—The facilities for water skiing were in included with those associated with power boating. Therefore, the same remarks apply.

(16) Cross-country Skiing.—On a provincial basis, the number and variety of trails, trail information and maps, and warm-up facilities are at the low end of a level 3 concern (Table 92). The urban participants are more dissatisfied with the number and selection of trails and with the warm-up facilities than are the rural participants. The urban results are also reflected in the responses from the Winnipeg region (Table 93). The only fourth order response is in the Northern region and lies with the warm-up facilities.

(17) Snowshoeing.—The discussion that applies to cross-country skiing also applies for snowshoeing.

(18) Downhill Skiing.—Almost half of the participants of downhill skiing feel that the number of downhill skiing areas are inadequate. The warm-up facilities are in the third order of concern with a negligible amount of concern associated with downhill skiing equipment rentals.

(19) Snowsledding-Tobogganing.—There is a third order concern for the urban participants and for the province as a whole with regard to snowsledding and tobogganing runs (Table 92). The Winnipeg, Dauphin and The Pas regions also reflect the same order of concern (Table 93).

(20) Outdoor Ice Skating.—With regard to the number of outdoor ice skating areas and warm-up facilities, the magnitude of concern is generally in the third and second orders respectively. The major deviants from this generalization are the Winkler and The Pas regions which exhibit a fourth level concern for the number of outdoor ice skating areas (Table 93).

(21) Snowmobiling.—Most of the snowmobilers who were surveyed feel that the facilities listed are adequate (Tables 92 and 93). The

only exception is in The Pas region where snowmobilers feel that the access to snowmobile trails and the warm-up facilities are inadequate at the third order level.

(22) Trail Biking.— , (23) Cross-country Biking.— , and (24) Off-road Four Wheel Driving.—These activities have very few participants that were surveyed and as a result any analysis of the responses would be statistically insignificant.

(25) Golfing.—The number and variety of golf courses and miniature golf courses are generally acceptable except for a rural response which is at the 3rd level of inadequacy and a 4th level response from The Pas and Northern regions, both with regard to regular golf courses (Tables 92 and 93).

(26) Tennis.—There is an overall feeling of the fourth level that the number of tennis courts are inadequate (Tables 92 and 93).

(27) Cottaging.—The municipal services for cottages is generally at an acceptable level except in the regions of Winkler and The Pas where the level of inadequacy lies in the fourth and third categories respectively (Tables 92 and 93).

(28) Visiting Provincial Parks.—There were no facilities examined in the survey for this activity.

9. Analysis of Campsite Preference

A. Provincial Analysis.—On a provincial basis, the campers of Manitoba prefer unserviced campsites over the fully serviced, electrical and wilderness campsites (Table 16). There is an even split between the combined fully and partially serviced sites and the unserviced and wilderness sites.

TABLE 16

DEMAND

TYPE OF CAMPSITE PREFERENCE

Area	% Fully Serviced Sites	% Electrical Only Sites	% Unserviced Sites	% Wilderness Sites
Manitoba	23.91	26.61	37.01	12.47
Urban Manitoba	30.23	16.74	35.35	17.67
Rural Manitoba	18.50	35.24	39.21	7.05
Regions				
Winnipeg	33.92	29.52	47.14	19.82
Winkler	11.54	38.46	50.00	0.00
Brandon	16.13	35.48	41.94	6.45
Dauphin	20.00	30.00	40.00	10.00
Interlake	0.00	33.33	66.67	0.00
The Pas	53.85	15.36	30.77	0.00
Northern	27.27	36.36	22.73	13.64

B. Rural-Urban Analysis.—Both the rural and urban campers prefer unserviced campsites over the other types of sites but the urban preference for fully serviced and for wilderness campsites is higher than the provincial average (Table 16). The rural sector has a preference for the 'electrical only' sites which is higher than the provincial preference for the same type of site.

C. Regional Analysis.—One-half of the camping populations of the Winnipeg and Winkler regions indicate a preference for unserviced sites with an additional 20% of the Winnipeg region preferring wilderness campsites (Table 16). The Pas and Northern regions are the only regions in the province which do not show unserviced sites as their highest campsite preference. Just over half of The Pas region's campers indicate a preference for fully serviced sites whereas the Northern region's preference lies with the 'electrical only' sites.

On a percentage basis, the highest preference for the fully serviced sites lies with The Pas region, the 'electrical only' site with the Winkler region, the unserviced sites with the Interlake region and the wilderness sites with the Winnipeg region.

CHAPTER FIVE

LIMITATIONS OF THE PROJECT AND DATA

There are basically two types of limitations encountered by this project. The first type of limitation deals with the problems encountered with the data, both primary and secondary data. The second type of limitation deals with problems encountered by the methodology used in the study. The latter is of a more complex nature and is not as conspicuous as the former.

1. Data Limitations

The data limitations fall into three categories. They are the 'demand', 'supply' and 'need' data limitations.

A. 'Demand' Data Limitations.--The data limitations connected with the demand portion of the thesis stem mainly from the problems incurred while conducting the survey and problems with the design of the questionnaire.

The questionnaire and the survey were designed to obtain participation rates and the frequency of participation from residents of Manitoba. Residents are made up of all age groups but because it is difficult to receive accurate or realistic responses from children, the interviewers were instructed to elicit responses from only those people who were 18 years or older. Herein lies one of the major data limitations. From some of the responses and comments on the returned questionnaires, it appears that some respondents were under 18 years

of age and also that some people responded on behalf of their children. For example, some respondents would add "I do not personally participate in this activity but my children do." It is therefore suggested that some of the participation rates and frequencies as determined from the questionnaire do in fact include participation from the under 18 year age group. But at the same time it is also impossible to determine the exact amount which is included. The under 18 age group represented 23.4% of Manitoba's total population.

The total population figures used in Tables 22, 25, 26 and 29 through to 35 are the actual population figures for the areas being examined. An argument can be made that the number of persons capable of participating in any given activity (the target population) does not necessarily equal the total population. For example, in the activity of back packing, one should rightfully exclude all persons who could not physically participate. This may include all persons who are very young and very old, severely handicapped people and people who are incarcerated. On the other hand, a given participation rate of 5% for example does not mean that 95% of the population could participate but don't. It only means that they don't participate. The reason being unknown. This problem of target population and total population stands as a limitation in determining the demand for outdoor recreational facilities.

Another data limitation involves the respondents' perception of the questions. For example, some respondents would not be able to differentiate between back packing, hiking or walking for pleasure. Others indicated that they do not participate in any of the activities because they are senior citizens but at the same time added that all

they do is go for a walk sometimes (even though they had previously indicated that they do not participate in walking or hiking for pleasure).

While the survey was being conducted there was a change in management and personnel within the telephone agency which conducted the survey. At the time of the change-over (about one-quarter of the way through the survey) there appeared to be a change in the quality of the registered responses. Many of the comments that were jotted down on the questionnaire forms by the original group of interviewers were lacking in the second group's forms. There was also an apparent drop in the rural participation rates and also more incidences of rural questionnaires returned having no participation whatsoever in any of the selected activities. There was also a marked decrease of information supplied for sections 'C' and 'D' of the questionnaire which pertains to 'additional activities' and 'activities that would be participated in if the facilites were provided'. Many of the above occurrences may be coincidental but they do raise doubts.

Another limitation connected with the participation or demand information has to do with the fact that the telephone exchange (N,X,X.) code boundaries do not match the municipal or local government district boundaries (Figures 11 and 12). The decision was made to allocate an exchange according to two priorities. First, an exchange code is usually related to a city, town or village. In this case the telephone exchange code would be allocated to the rural municipality or local government district in which the city, town or village was located. Secondly, if there were two population centres involved in one exchange code and if they were also located

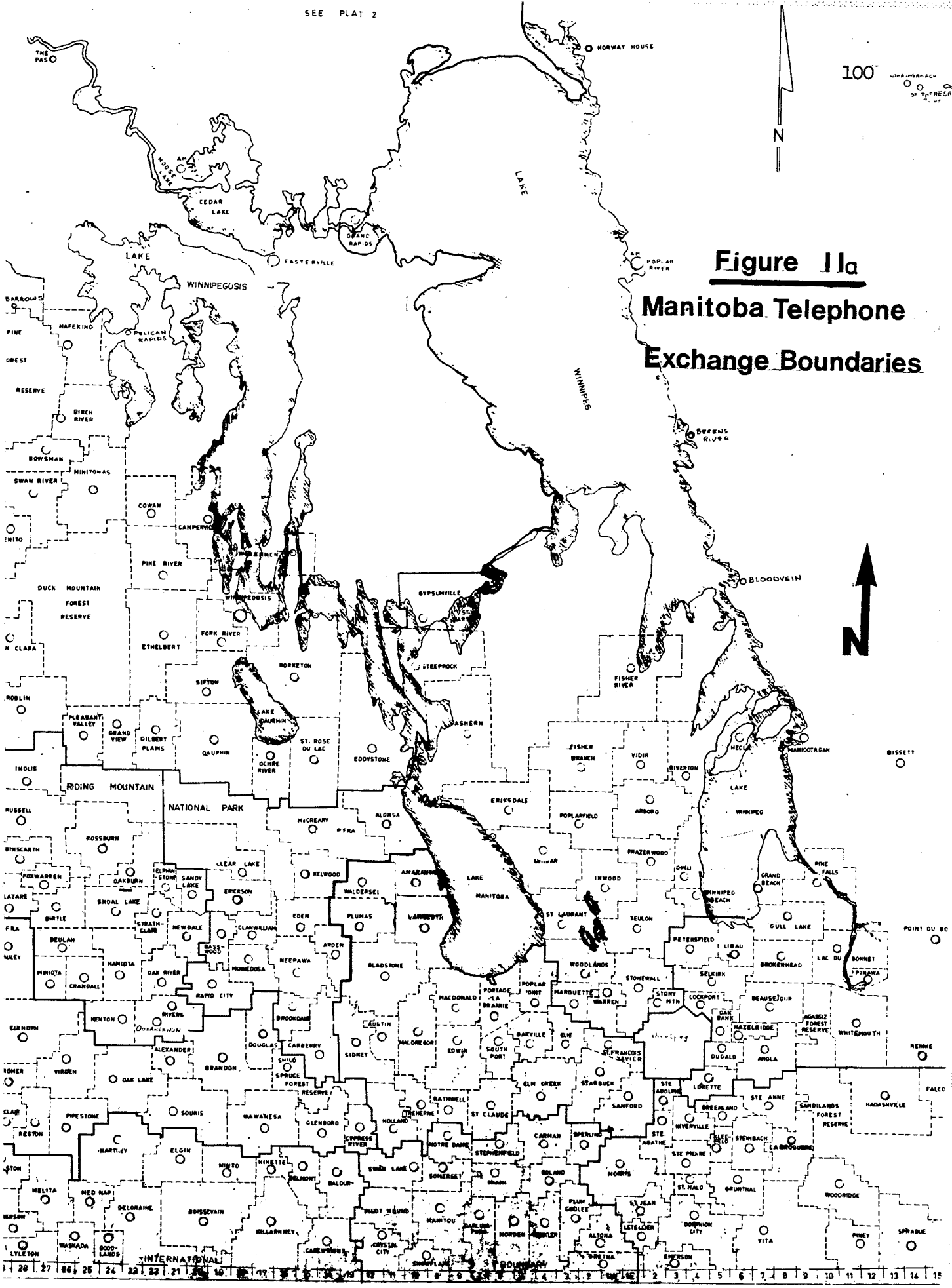


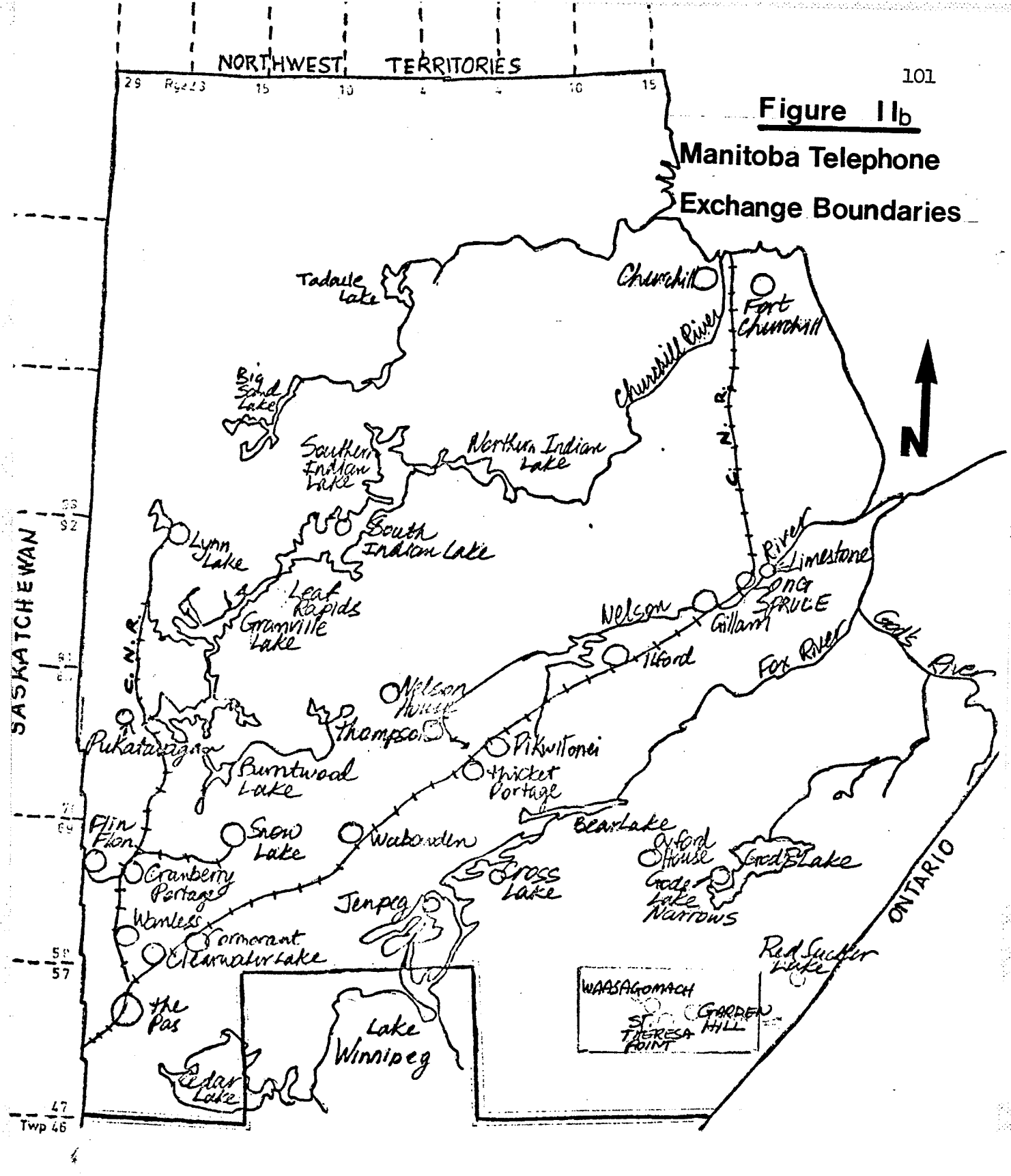
Figure IIa

Manitoba Telephone Exchange Boundaries

Source: Manitoba Telephone System. Public Relations Department. "Manitoba Telephone Exchange Codes". (Unpublished data sheets and maps). Winnipeg: Manitoba Telephone System.

Figure IIb

Manitoba Telephone Exchange Boundaries

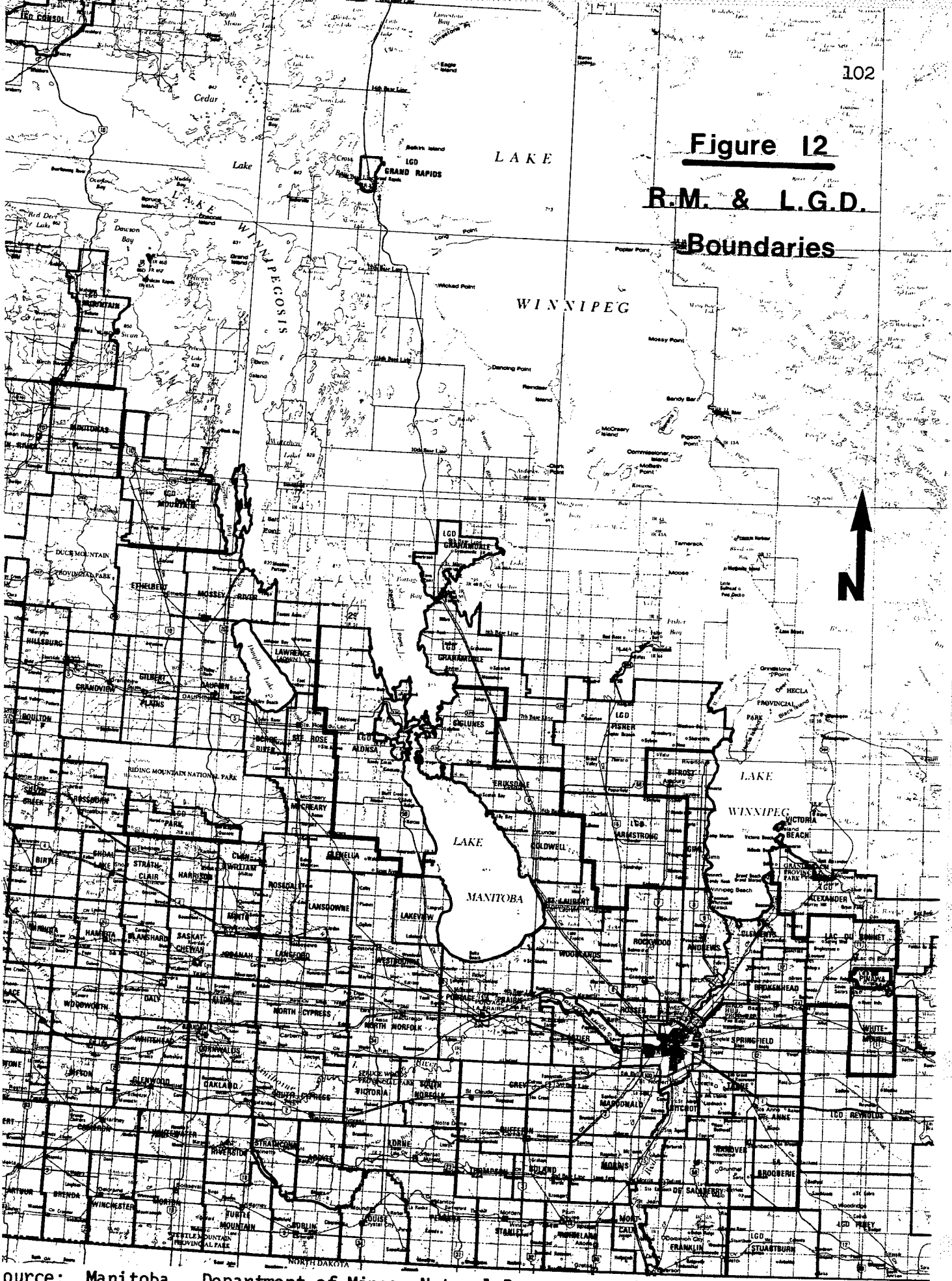


O: individual exchanges.

Source: Manitoba Telephone System. Public Relations Department. "Manitoba Telephone Exchange Codes". (Unpublished data sheets and maps). Winnipeg: Manitoba Telephone System.

Figure 12

R.M. & L.G.D. Boundaries



Source: Manitoba. Department of Mines, Natural Resources and Environmental Management. Surveys, Mapping and Lands Branch. Municipalities and Local Government Districts. Winnipeg: Surveys, Mapping and Lands Branch. 1977.

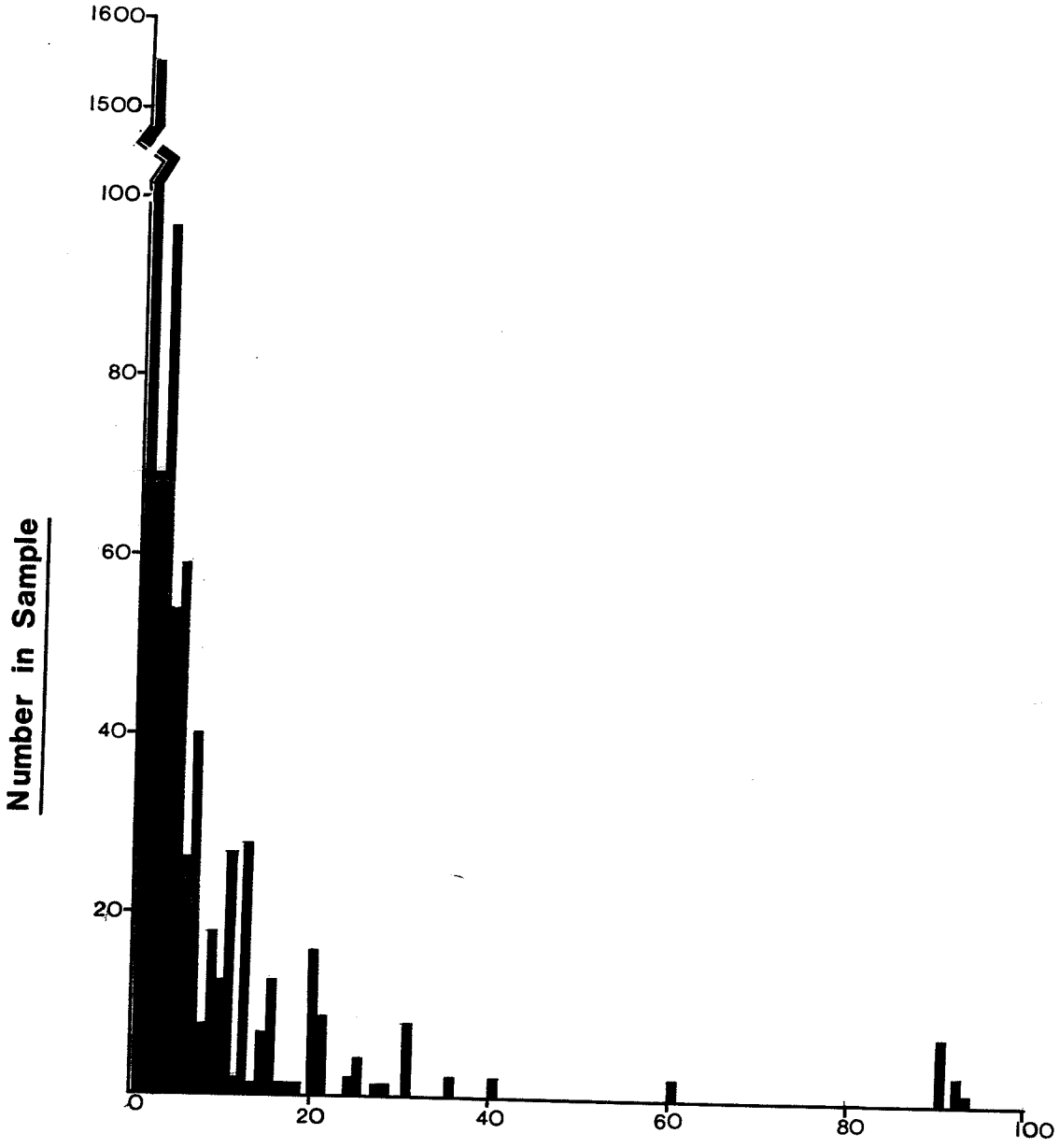
in two adjacent municipalities, the exchange code would be assigned to the municipality which contained the largest portion of the exchange.

A further 'demand' data limitation deals with the area of sample sizes and their significance. As shown in Table 6, the provincial sample is 0.19% or 2,089 respondents out of a total population of 1,098,904. This sample, when examined carefully after data analysis through SPSS does not represent a significant portion of the total population. Statistical inferences cannot be made unless a significant sample is present. In the case of camping, there was a mean response of 2.2 and a standard deviation of 7.86 relating to the question of - "How often do you participate in camping per year?" The interval as a result is - 5.66 to 10.06 times per year. It is impossible for the average response to deviate to a negative point for this particular set of responses. It was assumed therefore that the distribution of responses did not fit a normal bell shaped curve and as a result the sample response distribution for camping was plotted (Figure 13). The distribution is highly skewed to the left. The minor problem stems from the fact that almost 75% of the responses fall into the zero frequency category. Because of the skewed distribution, the dispersion statistics (mean, variance, and standard deviation) are not of any value.

B. 'Supply' Data Limitations.—The major data limitation related to the 'supply' portion of the equation has to do with the lack of inventory information and the fact that there were not many activities for which the inventory could be obtained from a single source. In many instances a facility's inventory was a conglomeration of up to four or more sources because there did not exist an agency solely responsible for that facility in the province. In some cases there were discrepancies

FIGURE 13

SAMPLE DISTRIBUTION FOR CAMPING



between two sources (i.e. provincial-municipal, municipal-civic, etc.) and therefore a third source was consulted.

A minor limitation to the inventoried data is related to the lack of current information for various parts of the province. For example, the City of Winnipeg lacked much of the inventory information necessary for the urban analysis portion of the supply (i.e. picnicking facilities, cross-country skiing facilities, etc.). This lack of information in some cases artificially inflated the 'need' figures for some of the facilities.

Another limitation pertaining to the 'supply' data for outdoor recreational facilities is the sometimes questionable level of accuracy with which some people supply information. In some cases the information supplied was rounded off to the nearest whole number or to units of five or ten or even a hundred depending on the number of digits in the figure.

C. 'Need' Data Limitations.—Basically, the data limitations associated with the 'need' portion of this thesis stem from the fact that the 'supply' and 'demand' data was used to produce the 'need' data thus transferring both the 'supply' and 'demand' data limitations to the 'need' data. Thus, in some cases the problems are compounded.

2. Project Limitations

The project limitations pertain to problems encountered in the project which limit the usefulness of the final product. Much of this type of limitation deals with apprehension that exist with respect to the methodology. In some instances the 'project limitations' stem from the 'data limitations'.

A. Insufficient Data.—As a result of conducting a survey on a per capita basis and because of the uneven distribution of the population throughout the province there exists an uneven sample distribution of the participation (demand) data for the province. As far as the provincial analysis is concerned, the sample distribution is acceptable but with regard to a regional analysis, some regions are represented by a smaller sample than others because they have a smaller proportion of the province's population. This problem is exemplified by the Interlake and The Pas regions having 1.1% and 2.3% of the total sample instead of 14.3% each, being that there are seven regions (Table 6). For many purposes, the analysis of the demand data may not be significant for these two regions. The percent sample of the population for the Winkler, Dauphin and Northern regions may also pose questions with regard to the significance of any analysis, considering the size of their regional populations. Generally, the rule is, the smaller the target population the larger the sample size needed.

B. Participation Rate Factors.—The subjectivity involved in determining the participation rate factors and the standards is another project limitation (Table 5). The concept behind the use of the various participation rates and the standards to determine the volume of resources demanded is a good one. The problem lies with actual figures chosen not with the factors selected. This problem is one which stems from the Souris River Basin Study and is carried forward to this study.

C. Formulae Promulgating Errors.—This type of limitation is concerned with the increasing awareness of an error's presence as the steps of a multi-stepped equation are computed. If there is a negligible amount of error associated with each factor and if the factors

are multiplied by each other, directly or indirectly, the amount of error may be increased and magnified to such a level that it poses a problem in using the final product of the equation.

D. The Survey Design.—The survey was designed to obtain the greatest amount of information on outdoor recreational participation while at the same time requiring the least amount of time on the telephone. The design limited to a certain extent the number and type of people able to participate in the survey. If a person did not have a residence telephone there would be no chance that he or she would be called upon to participate in the survey from his or her own home.

The survey, even though designed to elicit responses on 'additional activities' and 'activities participated in if the facilities were provided', was fairly lengthy for a telephone survey. The length of time involved in answering sections 'A' and 'B' of the questionnaire may have limited the responses to sections 'C' and 'D'. This could possibly explain the lack of responses in the latter sections of the questionnaire.

Many of the limitations discussed under the above section entitled 'Demand' Data Limitations which concern the questionnaire also apply as Project Limitations.

E. Participation vs. Demand.—The problem of participation not being a true measurement of demand is also a limiting factor which should be considered in the final analysis. Demand, if not available in its latency form also limits the usefulness of the participation rate and frequency information. The measurement of recreation demand, both in its active form and latent form is an

area which has been for sometime and currently is the subject of much concern in recreation research. As done in the past in much of the recreation research, an assumption was made in this thesis that the demand for recreation is that amount of a recreational facility that is requested by a population as determined by past use.

F. Defining 'Need'.—As mentioned above, the concept of 'need' is very subjective and as a result is another project limitation. The determination of 'need', as computed in this thesis is done so with the use of the 'supply' data and the 'demand' data along with their limitations resulting in the 'need' limitations outlined above. 'Need' is different for each and every person and initiates the concept of one person's need being another's necessity.

G. Levels of Inadequateness.—The levels of facility inadequateness as listed in Table 14 were selected subjectively. The level of importance or concern associated with each level of inadequateness was determined by consulting the Planning Section of the Provincial Parks Branch. This noted subjectivity is the last specified limitation of the 'project limitations'.

CHAPTER SIX

EVALUATION OF THE FINAL RESULTS

The most notable irregularities in the 'need' analysis can be found in cottaging, picnicking, snowmobiling and swimming. The 'need' analysis information as presented in this thesis should be considered only in light of the following:

- the sources of the 'supply' and 'demand' information;
- the methodology used to determine 'need' from the 'supply' and 'demand' data;
- and the limitations of the data and the project.

The participation rates and standards as used in the methodology are not to be considered infallible. For example, the participation rate factors of seasonal activity days, peak days and the peaking factor as they relate to cottaging are questionable (Table 5). Considering the fact that most cottages are privately owned and used mainly by the owner and his or her family, the peaking factor of 0.5% should not apply. The seasonal activity days of 240 days seems to be fairly high. A more appropriate figure might be 108 days as used in camping. If one still assumes that most of the cottaging activity takes place on weekends then two-sevenths or 28.57% of the seasonal activity days (30.86%) can be considered the number of peak days.

With reference to Table 82, the peaking factor for cottaging in the province of Manitoba becomes 1.0 thus the number of person visits

(2,044,376.82). With the number of days during the peak period being changed to 30.9 from 68.6, the number of visits per day during the peak period becomes 66,161.06. Further, if the average party size and turnover rates remain the same, the new number of units of supply demanded per day becomes 16,540.27 cottages. If this figure is considered to be the revised demand figure for cottaging in Table 7 then the current need figure (supply minus demand) becomes a surplus of 1,521 cottages instead of 14,336 cottages.

Even a surplus of 1,521 cottages does not appear accurate in light of the fact that there are cottages being constructed constantly. This study should show a deficit just in the fact that there are people who go cottaging do not necessarily own a cottage. Some people rent a cottage for a weekend or even a week or two and others have the use of a friend's or relative's cottage.

Another irregularity as mentioned above is exemplified by the activity of swimming. There appears to be a great surplus of designated beaches in the province (Table 7). The methodology does not consider the uneven distribution of site use patterns. There are a few beaches which are excessively overutilized and others which are underutilized. There are many factors to be considered when examining the use patterns of designated beaches. Distance from population centres, demographic factors, beach attractivity, and quality and quantity of the water are just a few of the factors.

More detailed background information is needed in order to determine the actual 'need' for outdoor recreational facilities. The activity of snowmobiling exhibits a great need for additional facilities (i.e. trails). But if further information was obtained on

snowmobile use patterns, the actual 'need' for facilities would be reduced if it was learned that much of the use took place on private lands and not on developed trails. Further research would show that there is a certain percentage of snowmobilers who would not use the trails even if they were easily accessible. Some snowmobilers prefer virgin territory.

As has been pointed out in this section, there are problems with some of the participation rate factors and standards. The activities mentioned are examples of some of the problems and some of the activities which need further research.

An analysis of the activities by person visits eliminates many of the problems associated with the standards, average party size, and turnover rates (Table 12). But person visits does not provide planners with the amount of resources needed for outdoor recreational activities. This problem can only be solved as a result of further research.

CHAPTER SEVEN

CONCLUSIONS AND RECOMMENDATIONS

1. Conclusions

A notion exists that the 'need' for outdoor recreational facilities can be computed if the current 'demand' and 'supply' data of the facilities are known and are available. This concept is not impeccable. There are many problems which are inherent to the concept. There are problems associated with: measuring 'latent demand'; determining the 'need for who'; inferring that past and present participation rates are a meausre of 'current demand'; and subtracting the 'volume of resources demanded' from the 'volume of resources supplied' to achieve the 'volume of resources needed'. From the literature available there does not appear to be a simple answer in order to determine the 'need' for outdoor recreational facilities.

The main conclusion that can be drawn from this study is that the amount of outdoor recreational facilities 'needed' by the people of Manitoba can be roughly estimated from the 'demand' and 'supply' data if one accepts the idea that past and present participation is the major factor in measuring 'demand'. The current 'need' as presented in 'person visits' (Table 24) as opposed to 'volume of resources' (Table 6) presents a more accurate and more comparable analysis of the present situation if one takes into consideration the problems associated with the participation rates and standards.

It has also been concluded that the value of this thesis does not lie so much in the analysis of 'need' but rather in the presentation of outdoor recreational participation rates and frequencies and in the inventory of outdoor recreational facilities. This thesis should be viewed as the basis for further research with the 'supply' and 'demand' Tables providing much of the basic information.

Taking all factors into consideration, the activities as selected by the study should be priorized in the following order of 'need':

	Person Visits	Resources
* Camping	10,900	6,229 Sites
* Golfing	9,227	511 Holes
* Downhill Skiing	2,802	35 Runs
* Snowshoeing	2,489	249 Km.
* Picnicking	1,423	228 Sites
** Snowmobiling	36,738	7,348 Km.
** Cross-country Skiing	34,714	1,736 Km.
** Snowsledding-Tobogganing	26,056	240 Runs
*** Bicycling	37,382	***
*** Fishing	29,900	***
*** Power Boating	15,516	***
*** Water Skiing	11,640	***
*** Hunting	9,618	***
*** Sailing	2,467	***
*** Trail Biking	1,191	***
*** Cross-country Biking	633	***
*** Off-road Four Wheel Driving	584	***

These activities show a 'need' for additional facilities based upon the participation data and one of the following:

* - a fairly accurate inventory,

** - an inventory which has some inherent problems as discussed earlier,

TABLE 17

ACTIVITIES PRIORIZED ALONG FACILITY WITH HIGHEST LEVEL OF REGISTERED INADEQUACY*

Rank	Activity	Level
1	Downhill Skiing	4
2	Off-road Trail Biking and Motoring	4
3	Tennis	4
4	Camping	4
5	Picnicking	3
6	Swimming	3
7	Horseback Riding	3
8	Skating	3
9	Snowsledding-Tobogganing	3
10	Cross-country Skiing	3
11	Golfing	2
12	Bicycling	2
13	Power Boating	2
14	Sailing	2
15	Walking or Hiking	2
16	Visiting Historic Sites	1
17	Cottaging	1
18	Snowmobiling	1
19	Fishing	1
20	Canoeing	1
21	Driving for Pleasure	1

*Based on Table 92.

*** - an inventory which is for one reason or another not available resulting in a demand but no registered supply and therefore an unknown 'need' is registered.

The remaining activities register a surplus of facilities (Table 10).

With regard to areas of need in the province of Manitoba, Table 8 contains the surplus and deficit of outdoor recreational facilities according to a regional breakdown. This Table should be reviewed in light of the data limitations.

Table 7 presents the demand and supply of outdoor recreational facilities along with the need for additional facilities and the facilities which are in surplus of demand. This Table should also be reviewed in light of the data limitations.

The projection of demand and supply for outdoor recreational facilities into the future are contained in Tables 90 and 91, respectively. The 'need' projections are contained in Table 11. These Tables are subject to the data limitations presented in Chapter 5.

The determination of 'latent' demand for outdoor recreational facilities failed due to a poor response rate, interview techniques and survey design. Therefore there are no indications of what activities the people of Manitoba would participate in if the facilities were provided.

Along the lines of the adequacy of facilities it is concluded that for the province as a whole, the activities which registered the highest level of inadequacy for a facility are downhill skiing, off-road biking and motoring, tennis and camping (Table 17). These activities each had a facility which was considered by more than 30% of the survey respondents to be inadequate. The level three and four

activities should be considered as having facility problems and worthy of the attention of planners.

One final conclusion stems from the campsite preference data obtained from the questionnaire. It has been pointed out that 50% of the province's campers prefer either fully serviced sites or sites with electricity (Table 15). Of the campsites managed by the Provincial Parks Branch, only 16.5% are either electrical or fully serviced (with the overflow discounted) (Table 38). It is therefore concluded that there is a shortage of the partial and full serviced campsites.

2. Recommendations

As a result of the gathering, tabulation and analysis of the data, I recommend that further work be carried out in the area of participation rate factors and standards used to transform demand data from the number of visits demanded to the volume of resources demanded. I would also suggest that further research be employed to determine a precise measure of demand, one which also includes a measurement of 'latent demand'. A survey on 'latent demand' would be in order.

It is recommended that, in order to generate valuable dispersion statistics for the type of participation data that has been presented in this thesis, a larger sample size be utilized. To predetermine a sample size one must have knowledge of the varying degrees of reliability which is in itself highly dependent upon the subject matter. Because of the larger number of activities being measured, ranging from quite common (e.g. picnicking, with a participation rate of 37%) to back-packing (less than 2%), the most appropriate measure of reliability

is the relative standard error, or co-efficient of variation (C.V.). The C.V. is determined by dividing the standard error of the estimate by the estimate itself (Manitoba Bureau of Statistics, 1977:2).

A C.V. of 10% gives a 95% confidence interval of plus-minus 20% of the true value. The question of what particular C.V. should be used for a particular set of characteristics or activities depends on the uses to which the data will be put. In the absence of a precise, decision-making framework, it is suggested that most estimates for analysis purposes should have a C.V. of 15% (confidence interval of ± 30% of the true value) or less while the estimates that are most important for analysis and/or will be of wide interest in publications should have a C.V. of 10% or less (Manitoba Bureau of Statistics, 1977:2).

It has been suggested by the Manitoba Bureau of Statistics that a sample of 7,200 represents a compromise between cost and reliability. This would allow participation rates of 10% to be measured with a C.V. of:

5% at the Manitoba level,

10% for sub-groups making up 25% of the total sample,

15% for sub-groups making up one-eighth of the sample (for example, the seven regions plus a breakdown of Winnipeg).

It would also allow participation rates of 25% to be measured with a C.V. of:

5% for sub-groups making up one-third of the total sample (for example, grouped regions).

10% for sub-groups making up one-twelfth of the sample (for example, three grouped regions by four age categories, or six grouped regions by two sex categories).

15% for sub-groups making up about one-twenty-fifth of the sample.

This size of sample would allow good perishable estimates at the regional level and allow two-way classification of the data for most activities of interest (Manitoba Bureau of Statistics, 1977:3).

Another course of action could entail the breakdown of the sample distribution into types. For example, the camping distribution could be broken down into non-campers, transient campers, vacationing campers and seasonal campers with participant days of zero, 1 to 15, 16 to 30, and greater than 30 times per year respectively. The transient group could further be broken down into casual transient and frequent transient campers with participant days of 1 to 6 and 7 to 15 times per year. If applied to the distribution graph of Figure 13, the response curves in each of the categories would closely resemble that of a normal curve. This procedure of course would not lessen the problem of having a statistically insignificant sample.

Failing this one could zero in on the target population which would entail sampling only those people who could possibly participate in the selected outdoor activity, thus reducing the sample size required. But as mentioned earlier, the target population is very difficult to predetermine because the type of statistics required are not available.

The final recommendation of this thesis is that the facility adequacy data as presented in this thesis be examined thoroughly to

determine the precise nature of the inadequacies. Comparison of the 'need' and 'facility adequacy' Tables could possibly reveal additional information necessary in planning. For example, snowmobiling indicates a great deficit with regards to the amount of designated snowmobile trails (Table 7). But at the same time the number and variety of snowmobile trails are considered to be inadequate by only 4.2% of the snowmobilers, thus less importance should be placed on the deficit (Table 92). One other consideration is the fact that only 39.2% of the snowmobilers feel that the number of trails are adequate resulting in over 56% responding with feelings of indifference. This type of comparison could be an indication of demand in its latency form.

This section has tried to point out that much more research is needed before an accurate 'needs analysis' of outdoor recreational facilities can be accomplished. Emphasis should be placed on the areas noted.

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APPENDIX A

MANITOBA OUTDOOR RECREATIONAL PARTICIPATION QUESTIONNAIRE

MANITOBA OUTDOOR RECREATIONAL PARTICIPATION QUESTIONNAIRE

I.D. CODE (CC1-4) ____

TELEPHONE EXCHANGE NO. (CC5-7) ___

SECTION 'A'

HOW OFTEN DO YOU PARTICIPATE IN THE FOLLOWING OUTDOOR ACTIVITIES PER YEAR ?

		FREQUENCY
CAMPING	(CC8-9)	____
WHAT TYPE OF CAMPSITES DO YOU PREFER? 1-FULLY SERVICED 2-ELECTRIC ONLY 3-UNSERVICED 4-WILDERNESS	CIRCLE ONE (CC10)	1 2 3 4
PICNICKING	(CC17-18)	____
VISITING HISTORIC SITES	(CC22-23)	____
DRIVING FOR PLEASURE	(CC28-29)	____
WALKING OR HIKING FOR PLEASURE	(CC32-33)	____
BACK PACKING	(CC34-35)	____
BICYCLING	(CC40-41)	____
HORSEBACK RIDING	(CC44-45)	____
BEACH SWIMMING	(CC48-49)	____
FISHING	(CC53-54)	____
HUNTING	(CC57-58)	____

SECTION 'B'

HOW DO YOU FEEL ABOUT THE ADEQUACY OF THE FOLLOWING :

0-NO RESPONSE
1-ADEQUATE
2-INADEQUATE
3-INDIFFERENT

	CIRCLE ONE		IF INADEQUATE WHY ?
NUMBER & VARIETY OF CAMPING AREAS	(C11)	0 1 2 3	
NUMBER OF CAMPSITES	(C12)	0 1 2 3	
CAMPING INFORMATION & AREA MAPS	(C13)	0 1 2 3	
SANITARY FACILITIES	(C14)	0 1 2 3	
SHOWERS	(C15)	0 1 2 3	
CAMPING FEES	(C16)	0 1 2 3	
NUMBER & VARIETY OF PICNIC AREAS	(C19)	0 1 2 3	
NUMBER OF PICNIC TABLES & SHELTERS	(C20)	0 1 2 3	
COOKING FACILITIES (ie. barbecue pits)	(C21)	0 1 2 3	
HISTORICAL INFORMATION	(C24)	0 1 2 3	
INTERPRETIVE DISPLAYS	(C25)	0 1 2 3	
GUIDED TOURS	(C26)	0 1 2 3	
SANITARY FACLITIES	(C27)	0 1 2 3	
MARKED ROUTES	(C30)	0 1 2 3	
PROPER SIGNS AT POINTS OF INTEREST	(C31)	0 1 2 3	
NUMBER & VARIETY OF TRAILS	(C36)	0 1 2 3	
TRAIL INFORMATION & MAPS	(C37)	0 1 2 3	
INTERPRETIVE CENTRES	(C38)	0 1 2 3	
LOOKOUT POINTS & TOWERS	(C39)	0 1 2 3	
NUMBER & VARIETY OF CYCLE PATHS	(C42)	0 1 2 3	
CYCLE PATH INFORMATION & MAPS	(C43)	0 1 2 3	
NUMBER & VARIETY OF RIDING TRAILS	(C46)	0 1 2 3	
TRAIL INFORMATION & MAPS	(C47)	0 1 2 3	
BEACHES	(C50)	0 1 2 3	
CHANGING FACILITIES	(C51)	0 1 2 3	
BEACH SUPERVISION & SAFETY MEASURES	(C52)	0 1 2 3	
MARINAS FOR BOAT & EQUIPMENT RENTALS	(C55)	0 1 2 3	
BOAT LAUNCHING RAMPS	(C56)	0 1 2 3	

SECTION 'A'	FREQUENCY	SECTION 'B'		ADEQUACY	IF INADEQUATE - WHY ?
SAILING	(CC59-60) ____	MOORING FACILITIES	(C61)	0 1 2 3	
		BOAT LAUNCHING RAMPS	(C62)	0 1 2 3	
CANOEING	(CC63-64) ____	NUMBER & VARIETY OF CANOE ROUTES	(C65)	0 1 2 3	
		ROUTE INFORMATION & MAPS	(C66)	0 1 2 3	
POWER BOATING	(CC67-68) ____	BOAT LAUNCHING RAMPS	(C71)	0 1 2 3	
WATER SKIING	(CC69-70) ____	BOAT DOCKS	(C72)	0 1 2 3	
CROSS-COUNTRY SKIING	(CC73-74) ____	NUMBER & VARIETY TRAILS	(C77)	0 1 2 3	
SNOWSHOEING	(CC75-76 ____	TRAIL INFORMATION & MAPS	(C78)	0 1 2 3	
		WARM-UP FACILITIES	(C79)	0 1 2 3	
		EQUIPMENT RENTALS	(C80)	0 1 2 3	
DOWNHILL SKIING	(CC81-82) ____	NUMBER OF DOWNHILL SKIING AREAS	(C83)	0 1 2 3	
		WARM-UP FACILITIES	(C84)	0 1 2 3	
		EQUIPMENT RENTALS	(C85)	0 1 2 3	
SNOWSLEDDING-TOBOGGANING	(CC86-87) ____	SNOWSLEDDING-TOBOGGANING RUNS	(C88)	0 1 2 3	
OUTDOOR ICE SKATING	(CC89-90) ____	NUMBER OF OUTDOOR SKATING AREAS	(C91)	0 1 2 3	
		WARM-UP FACILITIES	(C92)	0 1 2 3	
SNOWMOBILING	(CC93-94) ____	NUMBER & VARIETY OF SNOWMOBILE TRAILS	(C95)	0 1 2 3	
		ACCESS TO TRAILS	(C96)	0 1 2 3	
		WARM-UP FACILITIES	(C97)	0 1 2 3	
OFF-ROAD TRAIL BIKING	(CC98-99) ____	OFF-ROAD TRAILS & AREAS	(C104)	0 1 2 3	
OFF-ROAD CROSS-COUNTRY BIKING	(C100-101) ____	ACCESS TO AREAS	(C105)	0 1 2 3	
OFF-ROAD FOUR-WHEEL DRIVING	(CC102-103) ____				
GOLFING	(CC106-107) ____	NUMBER & VARIETY OF GOLF COURSES	(C108)	0 1 2 3	
		NUMBER & VARIETY OF MINIATURE GOLF COURSES	(C109)	0 1 2 3	
TENNIS	(CC110-111) ____	NUMBER OF TENNIS COURTS	(C112)	0 1 2 3	
COTTAGING	(CC113-114) ____	MUNICIPAL SERVICES TO COTTAGES	(C115)	0 1 2 3	

SECTION 'C'

ARE THERE ANY OTHER OUTDOOR ACTIVITIES YOU PARTICIPATE IN ?
(IE. CLIMBING, HANG-GLIDING, WIND-SURFING, ETC.)

ACTIVITY TYPE	FREQUENCY	FACILITIES	ADEQUACY	COMMENTS
			0 1 2 3	
			0 1 2 3	
			0 1 2 3	

(CC116-120) _____ (CC121-125) _____ (CC126-130) _____

SECTION 'D'

ARE THERE ANY OUTDOOR ACTIVITIES YOU WOULD PARTICIPATE IN IF THE FACILITIES WERE PROVIDED ? (CC131-138) _____

SECTION 'E'

HOW OFTEN DO YOU VISIT MANITOBA PROVINCIAL PARKS PER YEAR ? (CC139-140) _____

APPENDIX B

MANITOBA TELEPHONE EXCHANGES

TABLE 18

RURAL MANITOBA EXCHANGE CENTRES LISTED BY N,X,X. CODE

N,X,X. Code	Exchange	Municipality, L.G.D. or Region
232	Barrows	The Pas Region
234	Oakburn	Shoal Lake (R.M.)
236	Birch River	Mountain (L.G.D.)
238	Bowsman	Minitonas (R.M.)
242	Manitou	Pembina (R.M.)
243	Poplar Point	Portage la Prairie (R.M.)
244	Poplar River	Northern Region
246	Darlingford	Pembina (R.M.)
248	Notre Dame Du Lourdes	Lorne (R.M.)
252	Edwin	Portage la Prairie (R.M.)
263	Pine River	Mountain (L.G.D.)
265	Brokenhead	Brokenhead (R.M.)
267	Oakville	Portage la Prairie (R.M.)
268	Beausejour	Brokenhead (R.M.)
275	MacDonald	Portage la Prairie (R.M.)
276	Bloodview	Northern Region
277	Bissett	Winnipeg Region
278	Inwood	Armstrong (L.G.D.)
286	Thicket Portage	Northern Region
288	Ilford	Northern Region
322	Warren	Woodlands (R.M.)
324	Altona	Rhineland (R.M.)
325	Winkler	Stanley (R.M.)
326	Steinbach	Hanover (R.M.)
327	Gretna	Rhineland (R.M.)
328	Rivers	Daly (R.M.)
329	Easterville	Interlake Region
335	God's Lake Narrows	Northern Region
343	Roland	Roland (R.M.)
344	Stony Mountain	Rockwood (R.M.)
345	Lac du Bonnet	Lac du Bonnet (R.M.)
346	Oo-za-we-kwun	Daly (R.M.)
347	St. Malo	De Salaberry (R.M.)
348	Whitemouth	Whitemouth (R.M.)

N,X,X. Code	Exchange	Municipality, L.G.D. or Region
349	Falcon Beach	Winnipeg Region
352	Waldersee	Glenella (R.M.)
353	Elie	Cartier (R.M.)
354	Brookdale	North Cypress (R.M.)
355	Greenland	Ste. Anne (R.M.)
356	Lynn Lake	Northern Region
357	Cormorant	The Pas Region
358	Snow Lake	The Pas Region
359	Norway House	Northern Region
363	Manigotagan	Winnipeg Region
364	Vidir	Bifrost (R.M.)
365	Strathclair	Strathclair (R.M.)
367	Pine Falls	Alexander (L.G.D.)
368	Arden	Lansdowne (R.M.)
369	Rennie	Reynolds (L.G.D.)
372	Fisher Branch	Interlake Region
373	Emerson	Montcalm (R.M.)
374	South Indian Lake	Northern Region
375	Marquette	Rosser (R.M.)
376	Arborg	Birfrost (R.M.)
377	Kleefield	Hanover (R.M.)
378	Riverton	Bifrost (R.M.)
379	Ste. Claude	Grey (R.M.)
382	Berens River	Northern Region
383	Woodlands	Woodlands (R.M.)
385	Gladstone	Westbourne (R.M.)
386	Plumas	Westbourne (R.M.)
388	Niverville	Hanover (R.M.)
389	Winnipeg Beach	St. Andrews (R.M.)
397	Little Grand Rapids	Northern Region (R.M.)
422	Ste. Anne	Ste. Anne (R.M.)
423	Piney	Piney (L.G.D.)
424	La Broquerie	La Broquerie (R.M.)
425	Vita	Stuartburn (L.G.D.)
426	Hadashville	Reynolds (L.G.D.)
427	Dominion City	Franklin (R.M.)

TABLE 18 - Continued

N,X,X. Code	Exchange	Municipality, L.G.D. or Region
428	Southport	Portage la Prairie (R.M.)
429	Woodridge	Piney (L.G.D.)
433	St. Pierre	De Salaberry (R.M.)
434	Grunthal	Hanover (R.M.)
435	Miami	Thompson
436	Elm Creek	Grey (R.M.)
437	Sprague	Piney (L.G.D.)
444	Oakbank	Springfield (R.M.)
445	Langruth	Lakeview (R.M.)
447	Ste. Rose Du Lac	Ste. Rose (R.M.)
448	Eddystone	Alonsa (L.G.D.)
449	Steeprock	Grahamdale (L.G.D.)
456	Garden Hill	Northern Region
457	Waasagomach	Northern Region
458	Pickwitonei	Northern Region
462	Ste. Theresa Point	Northern Region
466	Sidney	Northern Region
467	Stonewall	Rockwood (R.M.)
469	Red Sucker Lake	Northern Region
472	Cranberry Portage	Consul (L.G.D.)
473	Leaf Rapids	Leaf Rapids (L.G.D.)
476	Neepawa	Langford (R.M.)
482	Selkirk	St. Andrews (R.M.)
483	Souris	Glenwood (R.M.)
484	Nelson House	Northern Region
485	Jenpeg	Northern Region
486	Limestone	Northern Region
522	Melita	Arthur (R.M.)
523	Killarney	Turtle Mountain (R.M.)
524	Camperville	Mountain (L.G.D.)
525	Minitonas #1	Minitonas (R.M.)
526	Holland	Victoria (R.M.)
528	Ninette	Riverside (R.M.)
529	Cartwright	Roblin (R.M.)
532	Binscarth	Russell (R.M.)
534	Boissevain	Morton (R.M.)

N,X,X. Code	Exchange	Municipality, L.G.D. or Region
535	Baldur	Argyle (R.M.)
537	Belmont	Strathcona (R.M.)
538	Oxford House	Northern Region
539	Benito	Swan River (R.M.)
543	Pleasant Valley	Hillsburg (R.M.)
545	Mafeking	Mountain (L.G.D.)
546	Grandview	Grandview (R.M.)
547	Minitonas #2	Minitonas (R.M.)
548	Gilbert Plains	Gilbert Plains (R.M.)
553	Pukatawagan	Northern Region
564	Inglis	Shellmouth (R.M.)
566	Oak River	Blanshard (R.M.)
567	Miniota	Miniota (R.M.)
568	Beulah	Miniota (R.M.)
569	Cowan	Mountain (L.G.D.)
585	Sandy Lake	Harrison (R.M.)
587	Pelican Rapids	Dauphin Region
623	The Pas	Consul (L.G.D.)
624	Clearwater Lake	The Pas Region
625	Elphinstone	Strathclair (R.M.)
626	Sperling	Morris (R.M.)
628	Waterhen	Dauphin Region
634	Pierson	Edward (R.M.)
635	Gull Lake	Alexander (L.G.D)
636	Erickson	Clanwilliam (R.M.)
637	Austin	North Norfolk
638	Dauphin	Dauphin (R.M.)
639	Grand Rapids	Grand Rapids (L.G.D.)
642	Gimli	Gimli (R.M.)
643	Fraserwood	Armstrong (L.G.D.)
645	Fisher River	Interlake Region
646	St. Laurent	St. Laurent (R.M.)
649	Lyleton	Edward (R.M.)
652	Gillam	Gillam (L.G.D.)
656	Winnipegosis	Mossey River (R.M.)
655	Sifton	Dauphin (R.M.)

TABLE 18 - Continued

N,X,X. Code	Exchange	Municipality, L.G.D. or Region
657	Fork River	Dauphin (R.M.)
658	Goodlands	Brenda (R.M.)
659	Gypsumville	Grahamdale (L.G.D.)
662	Sinclair	Pipestone (R.M.)
664	Poplarfield	Fisher (L.G.D.)
665	Medora	Brenda (R.M.)
673	Waskada	Brenda (R.M.)
675	Churchill	Churchill (L.G.D.)
676	Cross Lake	Northern Region
677	Thompson #1	Mystery Lake (L.G.D.)
678	Moose Lake	The Pas Region
682	Wanless	Consul (L.G.D.)
683	St. Lazare	Ellice (R.M.)
685	MacGregor	North Norfolk (R.M.)
686	Tilston	Albert (R.M.)
687	Flin Flon	The Pas Region
689	Wabowden	Northern Region
722	McAuley	Archer (R.M.)
723	Treherne	South Norfolk (R.M.)
725	Brandon #1	Cornwallis (R.M.)
727	Brandon #2	Cornwallis (R.M.)
728	Brandon #3	Cornwallis (R.M.)
732	Rorketon	Lawrence (R.M.)
733	Ochre River	Ochre River (R.M.)
734	Swan River	Swan River (R.M.)
736	Sanford	MacDonald (R.M.)
737	Letellier	Montcalm (R.M.)
738	Petersfield	St. Andrews (R.M.)
739	Eriksdale	Eriksdale (R.M.)
742	Ethelbert	Ethelbert (R.M.)
743	Cypress River	Victoria (R.M.)
744	Somerset	Lorne (R.M.)
745	Carman	Dufferin (R.M.)
746	Morris	Morris (R.M.)
747	Deloraine	Winchester (R.M.)
748	Virden	Wallace (R.M.)

N,X,X. Code	Exchange	Municipality, L.G.D. or Region
749	Rathwell	South Norfolk (R.M.)
752	Alexander	Whitehead (R.M.)
753	Pinawa	Pinawa (L.G.D.)
754	Grand Beach	Alexander (L.G.D.)
755	Hazelridge	Springfield (R.M.)
756	Kelwood	Rosedale (R.M.)
757	Lockport	St. Andrews (R.M.)
758	St. Jean Baptiste	Montcalm (R.M.)
759	Shoal Lake	Shoal Lake (R.M.)
762	Lundar	Coldwell (R.M.)
763	Douglas	Elton (R.M.)
764	Hamiota	Hamiota (R.M.)
765	Shilo	North Cypress (R.M.)
766	Libau	St. Clements (R.M.)
767	Alonsa	Alonsa (L.G.D.)
768	Ashern	Siglunes (R.M.)
769	Elgin	Whitewater (R.M.)
773	Russell	Russell (R.M.)
776	Minto	Whitewater (R.M.)
778	Thompson #2	Mystery Lake (L.G.D.)
822	Morden	Stanley (R.M.)
824	Wawanesa	Oakland (R.M.)
825	Pilot Mound	Louise (R.M.)
826	Rapid City	Saskatchewan (R.M.)
827	Glenboro	North Cypress (R.M.)
829	Plum Coulee	Rhineland (R.M.)
834	Carberry	North Cypress (R.M.)
835	McCreary	McCreary (R.M.)
836	Swan Lake	Lorne (R.M.)
838	Kenton	Woodworth (R.M.)
842	Birtle	Birtle (R.M.)
843	Amaranth	Alonsa (L.G.D.)
845	Elkhorn	Wallace (R.M.)
847	Foxwarren	Birtle (R.M.)
848	Clear Lake	Park (L.G.D.)
849	Newdale	Harrison (R.M.)
853	Dugald	Springfield (R.M.)

TABLE 18 - Continued

N,X,X. Code	Exchange	Municipality, L.G.D. or Region
854	Pipestone	Pipestone (R.M.)
855	Oak Lake	Sifton (R.M.)
856	Fort Churchill	Churchill (L.G.D.)
857	Portage la Prairie	Portage la Prairie (R.M.)
858	Hartney	Cameron (R.M.)
859	Rossburn	Rossburn (R.M.)
864	St. Francois Xavier	St. Francois Xavier (R.M.)
865	Clanwilliam	Minto (R.M.)
866	Anola	Springfield (R.M.)
867	Minnedosa	Odanah (R.M.)
873	Crystal City	Louise (R.M.)
874	Basswood	Saskatchewan (R.M.)
876	Snowflake	Pembina (R.M.)
877	Reston	Pipestone (R.M.)
878	Lorette	Tache (R.M.)
882	St. Agathe	Ritchot (R.M.)
883	St. Adolphe	Ritchot (R.M.)
884	Pointe du Bois	Winnipeg Region
886	Teulon	Rockwood (R.M.)
935	San Clara	Park (L.G.D.)
937	Roblin	Shell River (R.M.)
966	Eden	Rosedale (R.M.)

Source: Manitoba Telephone System. Public Relations Department. 1979. "Manitoba Telephone Exchange Codes". (Unpublished data sheets). Winnipeg: Manitoba Telephone System.

TABLE 19

WINNIPEG EXCHANGES LISTED BY N,X,X. CODE

N,X,X. Code	Exchange	N,X.X. Code	Exchange
222	Transcona	632	West Kildonan
224	Transcona	633	West Kildonan
233	St. Boniface-St. Vital	667	East Kildonan
237	"	668	East Kildonan
247	"	669	East Kildonan
253	"	772	Winnipeg Centre
256	"	774	"
257	"	775	"
261	Fort Garry	783	"
269	Fort Garry	786	"
284	Fort Rouge	832	Charleswood
334	East Kildonan	837	"
338	East Kildonan	888	"
339	East Kildonan	889	"
452	Fort Rouge	895	"
453	Fort Rouge	942	Winnipeg Centre
474	Fort Garry	943	"
475	Fort Rouge	944	"
489	River Heights	946	"
582	West Kildonan	947	"
586	West Kildonan	985	"
589	West Kildonan	988	"

Source: Manitoba Telephone System. Public Relations Department. 1979. "Manitoba Telephone Exchange Codes". (Unpublished data sheets). Winnipeg: Manitoba Telephone System.

APPENDIX C

RURAL MUNICIPALITIES AND LOCAL GOVERNMENT DISTRICTS

TABLE 20

RURAL MUNICIPALITIES AND L.G.D.'S LISTED BY COMMUNITY

Community	R.M. or L.G.D.
Alexander	Whitehead (R.M.)
Alonsa	Alonsa (L.G.D.)
Altona	Rhineland (R.M.)
Amaranth	Alonsa (L.G.D.)
Anola	Springfield (R.M.)
Arborg	Bifrost (R.M.)
Arden	Lansdowne (R.M.)
Ashern	Siglunes (R.M.)
Austin	North Norfolk (R.M.)
Baldur	Argyle (R.M.)
Barrows	Dauphin Region
Basswood	Saskatchewan (R.M.)
Beausejour	Brokenhead (R.M.)
Belmont	Strathcona (R.M.)
Benito	Swan River (R.M.)
Berens River	Northern Region
Beulah	Miniota (R.M.)
Binscarth	Russell (R.M.)
Birch River	Mountain (L.G.D.)
Bissett	Winnipeg Region
Bloodvein	Northern Region
Boissevain	Morton (R.M.)
Bowsman	Minitonas (R.M.)
Brandon	Cornwallis (R.M.)
Brokenhead	Brokenhead (R.M.)
Brookdale	North Cypress (R.M.)
Camperville	Mountain (L.G.D.)
Carberry	North Cypress (R.M.)
Carman	Dufferin (R.M.)
Cartwright	Roblin (R.M.)
Churchill	Churchill (L.G.D.)
Clanwilliam	Minto (R.M.)
Clear Lake	Park (L.G.D.)
Clearwater Lake	The Pas Region
Cormorant	The Pas Region
Cowan	Mountain (L.G.D.)
Cranberry Portage	Consol (L.G.D.)
Crandall	Hamiota (R.M.)
Cromer	Pipestone (R.M.)
Cross Lake	Northern Region

TABLE 20 -Continued

Community	R.M. or L.G.D.
Crystal City	Louise (R.M.)
Cypress River	Victoria (R.M.)
Darlingford	Pembina (R.M.)
Dauphin	Dauphin (R.M.)
Deloraine	Winchester (R.M.)
Dominion City	Franklin (R.M.)
Douglas	Elton (R.M.)
Dugald	Springfield (R.M.)
Dunnotar	St. Andrews (R.M.)
Easterville	Interlake Region
Eddystone	Alonsa (L.G.D.)
Eden	Rosedale (R.M.)
Edwin	Portage la Prairie (R.M.)
Emerson	Montcalm (R.M.)
Elgin	Whitewater (R.M.)
Elie	Cartier (R.M.)
Elkhorn	Wallace (R.M.)
Elm Creek	Grey (R.M.)
Elphinstone	Strathclair (R.M.)
Ethelbert	Ethelbert (R.M.)
Erickson	Clanwilliam (R.M.)
Eriksdale	Eriksdale (R.M.)
Falcon Lake	Winnipeg Region
Fisher Branch	Fisher (L.G.D.)
Flin Flon	The Pas Region
Fort River	Dauphin Region
Fort Churchill	Churchill (L.G.D.)
Foxwarren	Birtle (R.M.)
Fraserwood	Armstrong (L.G.D.)
Garden Hill	Northern Region
Garson	Brokenhead (R.M.)
Gilbert Plains	Gilbert Plains (R.M.)
Gillam	Gillam (L.G.D.)
Gimli	Gimli (R.M.)
Gladstone	Westbourne (R.M.)
Gods Lake Narrows	Northern Region
Goodlands	Brenda (R.M.)
Glenboro	South Cypress (R.M.)
Grand Beach	St. Clements (R.M.)
Grand Rapids	Grand Rapids (L.G.D.)
Grandview	Grandview (R.M.)
Greenland	Ste. Anne (R.M.)
Gretna	Rhineland (R.M.)
Grunthal	Hanover (R.M.)
Gull Lake	Alexander (L.G.D.)
Gypsumville	Grahamdale (L.G.D.)
Hadashville	Reynolds (L.G.D.)
Hartney	Cameron (R.M.)

TABLE 20 -Continued

Community	R.M. or L.G.D.
Hazelridge	Springfield (R.M.)
Hecla	Interlake Region
Holland	Victoria (R.M.)
Illford	Northern Region
Inglis	Shellmouth (R.M.)
Inwood	Armstrong (L.G.D.)
Jenpeg	Northern Region
Kelwood	Rosedale (R.M.)
Kenton	Woodworth (R.M.)
Killarney	Turtle Mountain (R.M.)
Kleefield	Hanover (R.M.)
LaBroquerie	LaBroquerie (R.M.)
Lac du Bonnet	Lac du Bonnet (R.M.)
Langruth	Lakeview (R.M.)
Leaf Rapids	Leaf Rapids (L.G.D.)
Letellier	Montcalm (R.M.)
Libau	St. Clements (R.M.)
Limestone	Northern Region
Lockport	St. Andrews (R.M.)
Long Spruce	Northern Region
Lorette	Tache (R.M.)
Lundar	Coldwell (R.M.)
Lyleton	Edward (R.M.)
Lynn Lake	Lynn Lake (L.G.D.)
MacDonald	Portage la Prairie (R.M.)
MacGregor	North Norfolk (R.M.)
Mafeking	Mountain (L.G.D.)
Manigotogan	Winnipeg Region
Manitou	Pembina (R.M.)
Marquette	Rosser (R.M.)
McAuley	Archie (R.M.)
McCreary	McCreary (R.M.)
Medora	Brenda (R.M.)
Melita	Arthur (R.M.)
Miami	Thompson (R.M.)
Miniota	Miniota (R.M.)
Minitonas	Minitonas (R.M.)
Minnedosa	Odanah (R.M.)
Minto	Whitemouth (R.M.)
Moose Lake	The Pas Region
Morden	Stanley (R.M.)
Morris	Morris (R.M.)
Napinka	Brenda (R.M.)
Neepawa	Langford (R.M.)
Nelson House	Northern Region
Newdale	Harrison (R.M.)
Ninette	Riverside (R.M.)
Niverville	Hanover (R.M.)
Notre Dame de Lourdes	Lorne (R.M.)

TABLE 20 -Continued

Community	R.M. or L.G.D.
Norway House	Northern Region
Oak Bank	Springfield (R.M.)
Oakburn	Shoal Lake (R.M.)
Oak Lake	Sifton (R.M.)
Oak River	Blanshard (R.M.)
Oakville	Portage la Prairie (R.M.)
Ochre River	Ochre River (R.M.)
Oo-za-we-kwun	Daly (R.M.)
Oxford House	Northern Region
Pelican Rapids	Dauphin Region
Petersfield	St. Andrews (R.M.)
Pierson	Edward (R.M.)
Pikwitonei	Northern Region
Pilot Mound	Louise (R.M.)
Pinawa	Pinawa (L.G.D.)
Pine Falls	Alexander (L.G.D.)
Piney	Piney (L.G.D.)
Pipestone	Pipestone (R.M.)
Pleasant Valley	Hillsburg (R.M.)
Plumas	Westbourne (R.M.)
Plum Coulee	Rhineland (R.M.)
Pointe du Bois	Winnipeg Region
Poplarfield	Fisher (L.G.D.)
Poplar Point	Portage la Prairie (R.M.)
Poplar River	Northern Region
Portage la Prairie	Portage la Prairie (R.M.)
Powerview	Alexander (L.G.D.)
Pukatawagon	Northern Region
Rapid City	Saskatchewan (R.M.)
Rathwell	South Norfolk (R.M.)
Rennie	Reynolds (R.M.)
Reston	Pipestone (R.M.)
Rivers	Daly (R.M.)
Riverton	Bifrost (R.M.)
Roblin	Shell River (R.M.)
Roland	Roland (R.M.)
Rorketon	Lawrence (R.M.)
Rossburn	Rossburn (R.M.)
San Clara	Park (L.G.D.)
Sandy Lake	Harrison (R.M.)
Sanford	MacDonald (R.M.)
Selkirk	St. Andrews (R.M.)
Shilo	North Cypress (R.M.)
Shoal Lake	Shoal Lake (R.M.)
Sidney	North Norfolk (R.M.)
Sifton	Dauphin (R.M.)
Sinclair	Pipestone (R.M.)
Snowflake	Pembina (R.M.)
Snow Lake	Snow Lake (L.G.D.)

TABLE 20 - Continued

Community	R.M. or L.G.D.
Sperling	Morris (R.M.)
Sprague	Piney (R.M.)
Somerset	Lorne (R.M.)
Souris	Glenwood (R.M.)
South Indian Lake	Northern Region
Southport	Portage la Praire (R.M.)
Starbuck	MacDonald (R.M.)
St. Adolphe	Ritchot (R.M.)
Ste. Agathe	Ritchot (R.M.)
Ste. Anne	Ste. Anne (R.M.)
St. Claude	Grey (R.M.)
St. Francois Xavier	St. Francois Xavier (R.M.)
St. Jean Baptiste	Montcalm (R.M.)
St. Laurent	St. Laurent (R.M.)
St. Lazare	Ellice (R.M.)
St. Malo	DeSalaberry (R.M.)
St. Pierre	DeSalaberry (R.M.)
Ste. Rose du Lac	Ste. Rose (R.M.)
Ste. Theresa Point	Northern Region
Steeprock	Grahamdale (L.G.D.)
Steinbach	Hanover (R.M.)
Stephenfield	Dufferin (R.M.)
Stonewall	Rockwood (R.M.)
Stony Mountain	Rockwood (R.M.)
Strathclair	Strathclair (R.M.)
Swan Lake	Lorne (R.M.)
Swan River	Swan River (R.M.)
Teulon	Rockwood (R.M.)
The Pas	Consol (L.G.D.)
Thicket Portage	Northern Region
Thompson	Mystery Lake (L.G.D.)
Tilston	Albert (R.M.)
Treherne	South Norfolk (R.M.)
Vidir	Birfrost (R.M.)
Virden	Wallace (R.M.)
Vita	Stuartburn (L.G.D.)
Waasagomach	Northern Region
Wabowden	Northern Region
Waldersee	Glenella (R.M.)
Wanless	Consol (L.G.D.)
Warren	Woodlands (R.M.)
Waskada	Brenda (R.M.)
Waterhen	Dauphin Region
Wawanesa	Oakland (R.M.)
Whitemouth	Whitemouth (R.M.)
Winkler	Stanley (R.M.)

TABLE 20 - Continued

Community	R.M. or L.G.D.
Winnipeg Beach	St. Andrews (R.M.)
Winnipegosis	Mossey River (R.M.)
Woodlands	Woodlands (R.M.)
Woodridge	Piney (L.G.D.)

Source: Department of Economic Development and Tourism. 1971. "Facilities Inventory". (Computer printout). Winnipeg: Manitoba Bureau of Statistics.

APPENDIX D

RURAL MUNICIPALITY AND LOCAL GOVERNMENT DISTRICT MAPS

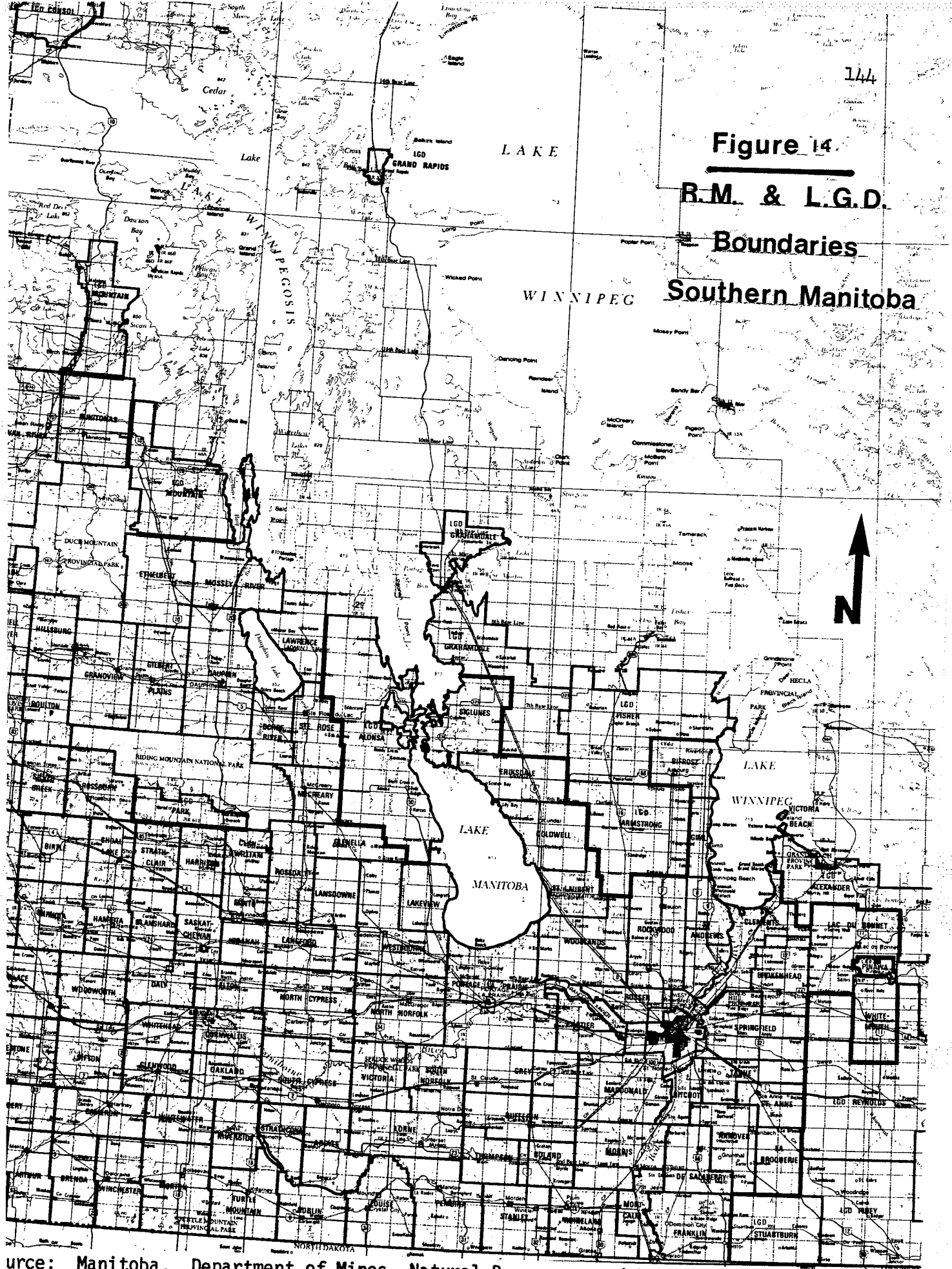

Figure 14.

R.M. & L.G.D. Boundaries Southern Manitoba

urce: Manitoba. Department of Mines, Natural Resources and Environmental Management. Surveys, Mapping and Lands Branch. Municipalities and Local Government Districts. Winnipeg: Surveys, Mapping and Lands Branch. 1977.

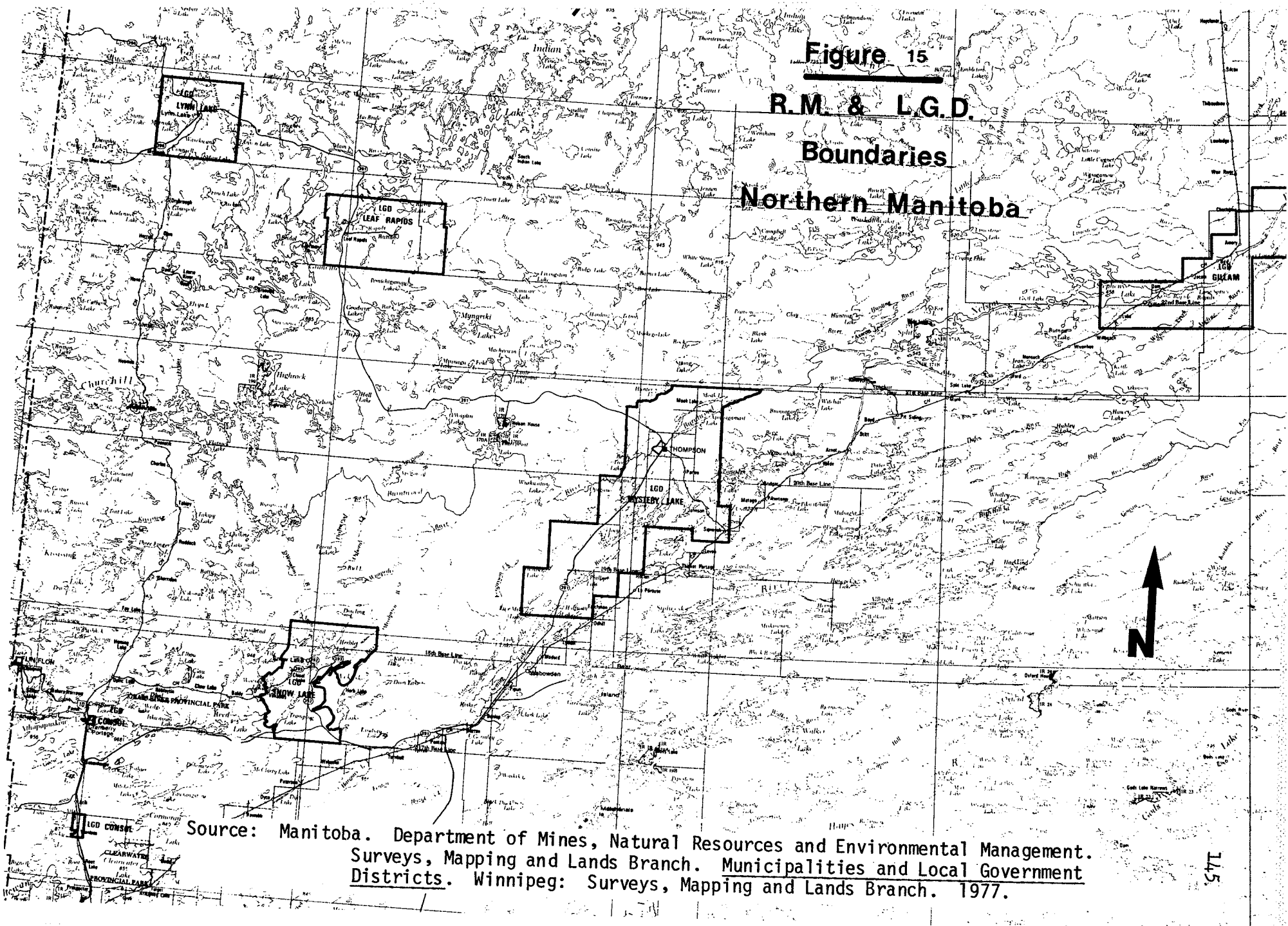

Figure 15

R.M. & L.G.D. Boundaries Northern Manitoba

Source: Manitoba. Department of Mines, Natural Resources and Environmental Management. Surveys, Mapping and Lands Branch. Municipalities and Local Government Districts. Winnipeg: Surveys, Mapping and Lands Branch. 1977.

APPENDIX E

NATURAL REGIONS

TABLE 21

R.M.'s & L.G.D.'s BY NATURAL REGIONS

Winnipeg Region

R.M. or L.G.D.	R.M. or L.G.D.
Alexander (L.G.D.)	Piney (L.G.D.)
*Armstrong (L.G.D.)	Portage la Prairie (R.M.)
*Bifrost (R.M.)	Reynolds (L.G.D.)
Brokenhead (R.M.)	Ritchot (R.M.)
Cartier (R.M.)	Rockwood (R.M.)
*Coldwell (R.M.)	Rosser (R.M.)
*De Salaberry (R.M.)	St. Andrews (R.M.)
*Dufferin (R.M.)	Ste. Anne (R.M.)
East St. Paul (R.M.)	St. Clements (R.M.)
*Eriksdale (R.M.)	St. Francois Xavier (R.M.)
*Fisher (L.G.D.)	St. Laurent (R.M.)
Gimli (R.M.)	Springfield (R.M.)
*Grey (R.M.)	*Stuartburn (L.G.D.)
Hanover (R.M.)	Tache (R.M.)
La Broquerie (R.M.)	Victoria Beach (R.M.)
Lac du Bonnet (R.M.)	West St. Paul (R.M.)
*MacDonald (R.M.)	Whitemouth (R.M.)
*Morris (R.M.)	Winnipeg Unorganized Areas
Pinawa (L.G.D.)	Woodlands (R.M.)

Winkler Region

R.M. or L.G.D.	R.M. or L.G.D.
*Argyle (R.M.)	Lorne (R.M.)
*De Salaberry (R.M.)	Louise (R.M.)
*Dufferin (R.M.)	*MacDonald (R.M.)
Franklin (R.M.)	Montcalm (R.M.)
*Grey (R.M.)	*Morris (R.M.)

*1/2 of R.M. or L.G.D. included in Region

TABLE 21 - Continued

Winkler Region--continued

R.M. or L.G.D.	R.M. or L.G.D.
Pembina (R.M.)	Stanley (R.M.)
Rhineland (R.M.)	*Stuartburn (L.G.D.)
*Roblin (R.M.)	Thompson (R.M.)
Roland (R.M.)	*Victoria (R.M.)
South Norfolk (R.M.)	

Brandon Region

R.M. or L.G.D.	R.M. or L.G.D.
Albert (R.M.)	North Norfolk (R.M.)
Archie (R.M.)	Oakland (R.M.)
*Argyle (R.M.)	Odanah (R.M.)
Arthur (R.M.)	*Park (L.G.D.)
*Birtle (R.M.)	Pipestone (R.M.)
Blanshard (R.M.)	Riverside (R.M.)
Brenda (R.M.)	*Roblin (R.M.)
Cameron (R.M.)	Rosedale (R.M.)
*Clanwilliam (R.M.)	*Rossburn (R.M.)
Cornwallis (R.M.)	*Russell (R.M.)
Daly (R.M.)	Saskatchewan (R.M.)
Edward (R.M.)	*Shoal Lake (R.M.)
*Ellice (R.M.)	Sifton (R.M.)
Elton (R.M.)	*Silver Creek (R.M.)
*Glenella (R.M.)	South Cypress (R.M.)
Glenwood (R.M.)	Strathclair (R.M.)
Hamiota (R.M.)	Strathcona (R.M.)
Harrison (R.M.)	Turtle Mountain (R.M.)
*Lakeview (R.M.)	*Victoria (R.M.)
Langford (R.M.)	Wallace (R.M.)
*Lansdowne (R.M.)	*Westbourne (R.M.)
Miniota (R.M.)	Whitehead (R.M.)
Minto (R.M.)	Whitewater (R.M.)
Morton (R.M.)	Winchester (R.M.)
North Cypress	Woodworth (R.M.)

*1/2 R.M. or L.G.D. included in Region.

TABLE 21 - Continued

Dauphin Region

R.M. or L.G.D.	R.M. or L.G.D.
Alonsa (L.G.D.)	Minitonas (R.M.)
*Birtle (R.M.)	Mossey River (R.M.)
Boulton (R.M.)	Mountain (L.G.D.)
*Clanwilliam (R.M.)	Ochre River (R.M.)
Daupnin (R.M.)	*Park (L.G.D.)
*Ellice (R.M.)	*Rossburn (R.M.)
Etnelbert (R.M.)	*Russell (R.M.)
Gilbert Plains (R.M.)	Ste. Rose (R.M.)
*Glenella (R.M.)	Shellmouth (R.M.)
Grandview (R.M.)	Shell River (R.M.)
Hillsburg (R.M.)	*Shoal Lake (R.M.)
*Lakeview (R.M.)	*Silver Creek (R.M.)
*Lansdowne (R.M.)	Swan River (R.M.)
Lawrence (R.M.)	*Westbourne (R.M.)
McCreary (R.M.)	

Interlake Region

R.M. or L.G.D.	R.M. or L.G.D.
*Armstrong (L.G.D.)	Grahamdale (L.G.D.)
*Bifrost (R.M.)	Grand Rapids (L.G.D.)
*Coldwell (R.M.)	Interlake Unorganized Areas
*Eriksdale (R.M.)	Siglunes (R.M.)
*Fisher (L.G.D.)	

The Pas Region

R.M. or L.G.D.	R.M. or L.G.D.
Consol (L.G.D.)	The Pas Unorganized Areas
Snow Lake (L.G.D.)	

*1/2 R.M. or L.G.D. included in Region.

TABLE 21 - Continued

Northern Region

R.M. or L.G.D.	R.M. or L.G.D.
Churchill (L.G.D.)	Lynn Lake (L.G.D.)
Gillam (L.G.D.)	Mystery Lake (L.G.D.)
Leaf Rapids (L.G.D.)	Northern Region Unorganized Areas

Source: Table 61, Figure 8 and Figure 12.

APPENDIX F

ANALYSIS OF DEMAND

APPENDIX F

ANALYSIS OF DEMAND (PARTICIPATION)

This section of the data analysis will examine the participation rates and frequencies of participation in the selected outdoor recreational activities as determined from the telephone questionnaires.

A. Provincial Analysis.—The participation rate for each of the selected activities for the province as a whole is presented in Table 22. The participation rate represents the percentage of the sample (2,089) which gave a positive answer to the selected activity. The number of participants is the participation rate inferred upon the total population. For example, 25.25% of the sampled population participate in camping. If we assume that the sampled population is significant we can also assume that 25.25% of the total population participate in camping (25.25% of 1,098,904 = 277,473.26).

A problem discussed in the data limitations section (Chapter 5) is that the total population available to participate in any given activity (the target population) is lower than the actual total population. The reader is therefore cautioned to consider this fact when reviewing Tables 22, 25, 26, and 29 through to 35.

The average frequency of participation is the average number of times a participant participates in an activity per year. In the above example, there were 277,473.26 participants in camping. These participants went camping, on average, 8.17 times per year for a total

of 2,416,792.02 participant days or person visits (Table 22). Participant days for the purpose of this thesis is defined as the number of times per year a person or persons participate in any given activity. A person could by definition participate in more than one activity per day. One could go boating, fishing and canoeing on the same day that he/she is camping. It is the number of participant days or person visits which are later manipulated by the participation rate factors to determine the volume of resources demanded per day.

When compared to the actual data obtained from camping permits (316,133 unit days sold times the average party size of 3.5 yields 1,106,466 participant days), this study is high by a factor of 1.8.

Another check with actual data was made with the Snowmobile Safety Branch of the Department of Motor Vehicles. There are approximately 50,000 registered snowmobiles in the province of Manitoba. The department estimates that there are between 100,000 and 150,000 snowmobilers in the province (based on an average of 2 to 3 users per snowmobile). The results of this study show 121,209 participants in the activity of snowmobiling (Table 22).

A final check was made with the department involved in issuing sport fishing licences. There were 156,553 sport fishing licences issued in 1979. They estimate that there are probably 100,000 people fishing without licences (legally and illegally) for a total of 256,553 persons fishing. This study shows a total of 260,770 participants in the activity of fishing (Table 22).

Other checks were attempted but the actual data is either not known or not available. A check with the number of cottages in the province is presented in Chapter Six.

TABLE 22

DEMAND

NUMBER OF PARTICIPANT DAYS BY ACTIVITY FOR MANITOBA

Activity	Participation Rate (%)	Number of Participants*	Average Frequency of Participation	Number of Participant Days
Camping	25.25	277,473.26	8.71	2,416,792.09
Picnicking	36.55	401,649.41	6.18	2,482,193.35
Visiting Historic Sites	20.84	229,011.59	3.73	854,213.23
Driving For Pleasure	35.80	393,407.63	16.04	6,310,258.39
Walking or Hiking	36.85	404,946.12	21.90	8,868,320.03
Back Packing	1.93	21,208.85	8.97	190,243.38
Bicycling	18.24	200,440.09	18.94	3,796,335.30
Horseback Riding	5.48	60,219.94	9.53	573,896.03
Swimming	34.55	379,671.33	13.26	5,034,441.84
Fishing	23.73	260,769.92	9.02	2,352,144.68
Hunting	10.20	112,088.21	6.75	756,595.35
Sailing	1.83	20,109.94	7.58	152,433.35
Canoeing	11.28	123,956.37	7.37	913,558.45
Power Boating	8.14	89,450.79	10.72	958,912.47
Water Skiing	6.02	66,154.02	7.39	488,878.21
Cross-country Skiing	11.98	131,648.70	15.49	2,039,238.36
Snowshoeing	2.02	22,197.86	6.49	144,064.11
Downhill Skiing	4.90	53,846.30	9.47	509,924.46
Snowsledding-Tobogganing	19.54	214,725.84	6.31	1,354,920.05
Outdoor Ice Skating	17.76	195,165.35	11.64	2,271,724.67
Snowmobiling	11.03	121,209.11	17.76	2,152,673.79

Based on Provincial total population of 1,098,904.

TABLE 22 - Continued

Activity	Participation Rate (%)	Number of Participants*	Average Frequency of Participation	Number of Participant Days
Trail Biking	0.93	10,219.81	11.84	121,002.55
Cross-country Biking	0.40	4,395.62	14.63	64,307.92
Off-road Four Wheel Driving	0.40	4,395.62	13.50	59,340.87
Golfing	14.12	155,165.24	12.80	1,986,115.07
Tennis	10.61	116,593.71	11.61	1,353,652.97
Cottaging	13.26	145,714.67	14.03	2,044,376.82
Visiting Provincial Parks	58.45	642,309.39	6.81	4,374,126.95

*Based on Provincial total population of 1,098,904.

When one compares the results of other outdoor recreational surveys with the current survey there are as many similarities as there are differences (Table 23). These similarities and differences stem from a variety of factors - geographic location of facilities, income of participants, demographic structure of the sample, etc. It is very difficult to compare the results of surveys conducted in different parts of the country. It is also difficult to compare results when the questionnaires vary in form of presentation (personal interviews, telephone interviews, etc.) and in the design of the questionnaire and the way the questions are asked.

There are two types of discrepancies when comparing the results in Table 23. The first type of discrepancy occurs when the current study is different from both of the other studies. The second type is when it is different from just one of the other studies. An example of the former in Table 23 is Driving for Pleasure where the Souris River Basin Study and the Ontario Recreation Survey are in close agreement with participation rates of 67.0% and 63.4%, respectively, compared to 35.8% for the current study. This difference is somewhat lessened when a regional analysis is performed. An example of the second type of discrepancy is camping. The current study is in agreement with the Ontario Recreation Survey with participation rates of 25.3% and 28.3%, respectively. But the Souris River Basin Study has a participation rate of 41.1%. In other activities the current study is in agreement with the Souris River Basin Study. In this case, cross-country skiing can be presented as an example. A possible reason for the difference with the Ontario study could be with the earlier date that the Ontario study was completed. Cross-country skiing had not become as popular as it is today.

TABLE 23

OUTDOOR RECREATION SURVEY COMPARISON OF PARTICIPATION RATES

Activity	Needs Analysis[1]	Souris River Basin Study[2]	Ontario Recreation Survey[3]
Camping	25.3	41.1	28.3
Picnicking	36.6	42.1	56.8
Visiting Historic Sites	20.8	19.8	32.6
Driving For Pleasure	35.8	67.0	63.4
Walking or Hiking	36.9	18.0	49.1
Back Packing	1.9	N/A	N/A
Bicycling	18.2	27.1	27.8
Horseback Riding	5.5	9.6	9.0
Swimming	34.6	52.8	62.1
Fishing	23.7	38.2	38.3
Hunting	10.2	N/A	5.6
Sailing	1.8	2.9	5.6
Canoeing	11.3	17.9	15.1
Power Boating	8.1	32.8	32.8
Water Skiing	6.0	14.6	9.5
Cross-country Skiing	12.0	13.3	2.6
Snowshoeing	2.0	4.8	4.2
Downhill Skiing	4.9	8.7	7.5
Snowsledding-Tobogganing	19.5	15.3	19.7
Outdoor Ice Skating	17.8	N/A	29.3
Snowmobiling	11.0	23.5	19.8

TABLE 23 - Continued

Activity	Need Analysis[1]	Souris River Basin Study[2]	Ontario Recreation Survey[3]
Trail Biking	1.0	4.3	4.3
Cross-country Biking	0.4	N/A	N/A
Off-road Four Wheel Driving	0.4	N/A	N/A
Golfing	14.1	24.3	13.1
Tennis	10.6	12.4	11.0
Cottaging	13.3	41.0	N/A
Visiting Provincial Parks	58.4	N/A	N/A

Sources: 1. Current Study.

2. Souris River Basin Study Board. 1978. The Souris River Basin Study - The Need and Associated Benefits of Recreation in the Souris River Basin. Supplement 5. Vol. 2: ID-30. Regina: Saskatchewan Government Printing Co.

3. Ontario. Department of Tourism and Outdoor Recreation. 1973. Ontario Recreation Survey - Tourism and Outdoor Recreation Planning Study. Progress Report No. 1:13. Toronto: Queen's Printer.

Participation rates for picnicking, driving for pleasure, bicycling, swimming, fishing, power boating, snowmobiling and cottaging are much lower for the current study than for the other two studies. None of the participation rates are much higher for the current study. One possible explanation could be that the under 18 age group is not represented in the survey. Overall, the participation rates tend to be lower in the current study and could be considered the minimum in many cases.

B. Rural-Urban Analysis.—A more important discussion involves a regional and rural-urban analysis using the same source of information, i.e. the 'Needs' survey. The urban sector, for the purposes of this thesis, is defined above, as the city of Winnipeg. The rural sector consists of the remainder of the province.

A higher percentage of the urban sector participates in visiting historic sites, bicycling, swimming, power boating, water skiing, cross-country skiing, downhill skiing, outdoor ice skating, golfing and tennis than does the rural sector (Table 24). On the other hand, the rural sector has higher participation rates in driving for pleasure, hunting, and snowmobiling. The remaining activities have similar participation rates.

The urban sector participates more frequently in downhill skiing, trail biking, cottaging and visiting provincial parks than does the rural portion. The rural sector participates more frequently than the urban sector in driving for pleasure, walking or hiking, back packing, bicycling, horseback riding, canoeing, water skiing, cross-country skiing, outdoor ice skating, snowmobiling, cross-country biking, off-road four wheel driving, golfing and tennis.

TABLE 24

RURAL/URBAN PARTICIPATION RATES AND FREQUENCIES IN SELECTED OUTDOOR RECREATIONAL ACTIVITIES

Activity	Participation Rate (%)		Average Frequency Per Year	
	Rural	Urban	Rural	Urban
Camping	24.29	26.03	8.32	9.00
Picnicking	36.87	36.29	6.65	5.80
Visting Historic Sites	16.82	24.10	4.05	3.55
Driving for Pleasure	41.82	30.92	17.14	14.83
Walking or Hiking	38.22	35.74	24.32	19.79
Back Packing	0.61	3.00	14.11	8.12
Bicycling	15.43	20.51	20.88	17.76
Horseback Riding	4.84	6.00	15.15	5.85
Swimming	28.54	39.42	28.32	29.07
Fishing	24.58	23.04	9.00	9.03
Hunting	14.88	6.41	6.00	8.16
Sailing	0.44	2.96	5.07	7.88
Canoeing	10.52	11.65	10.10	5.42
Power Boating	3.70	11.74	11.84	10.44
Water Skiing	3.12	8.36	10.02	6.59
Cross-country Skiing	9.47	14.02	18.02	14.10
Snowshoeing	0.95	2.89	6.89	6.38
Downhill Skiing	3.03	6.41	6.96	10.43
Snowsledding-Tobogganing	17.75	20.99	6.20	6.39
Outdoor Ice Skating	12.15	22.30	13.44	10.85
Snowmobiling	14.97	7.84	23.13	9.45
Trail Biking	0.44	1.34	9.68	12.42

TABLE 24 - Continued

Activity	Participation Rate (%)		Average Frequency Per Year	
	Rural	Urban	Rural	Urban
Cross-country Biking	0.10	0.64	32.94	12.27
Off-road Four Wheel Driving	0.32	0.47	32.89	2.80
Golfing	11.05	16.60	14.15	12.07
Tennis	6.36	14.05	13.85	10.79
Cottaging	16.78	16.78	11.27	15.22
Visting Provincial Parks	57.04	59.59	5.31	7.97

These figures on rural and urban participation rates and frequencies do not seem at first appearance to be correct. It is understandable that the participation rate and frequency of participation in snowmobiling be higher for the rural sector than for the urban sector. With the restrictions placed on snowmobiles in the city of Winnipeg, an urban participant must venture out of the city to pursue that activity. Once the urban participant is out of the city there are only a few sites which are available to him or her. Close at hand is the floodway right-of-way and of course, the rivers which lead in and out of the city. For the rural participant however, the site used for snowmobiling begins at the back door of his or her residence and the area is limited only by the amount of gasoline that can be carried. Even in the small communities a certain amount of snowmobile traffic is tolerable if it is for the purpose of gaining access to the outlying areas. Urban snowmobilers must use trailers to transport their snowmobiles to the site desired.

The same reasons apply, more or less, to the fact that horseback riding is more popular in the rural sector. What seems to be a strange outcome is the fact that the rural sector seems to participate more frequently in bicycling, canoeing, water skiing, golfing and tennis than does the urban sector. The importance of this outcome can be played down somewhat by the fact that the participation rate is lower. In other words, the percentage of people participating is lower for the rural sector, but those that do participate, do so more frequently as compared to their urban counterparts. The importance of this becomes apparent when one examines the actual number of participants and the number of participant days for each of the sectors (Tables 25 and 26).

TABLE 25

DEMAND

NUMBER OF PARTICIPANT DAYS BY ACTIVITY FOR RURAL MANITOBA

Activity	Participation Rate (%)	Number of Participants*	Average Frequency of Participation	Number of Participant Days
Camping	24.29	119,447.74	8.32	993,925.53
Picnicking	36.87	181,349.42	6.65	1,205,480.04
Visiting Historic Sites	16.82	82,715.68	4.05	334,586.45
Driving for Pleasure	41.82	205,680.20	17.14	3,525,559.40
Walking or Hiking	38.22	187,972.93	24.32	4,572,422.83
Back Packing	0.61	2,997.91	14.11	42,296.26
Bicycling	15.43	75,901.91	20.88	1,584,610.72
Horseback Riding	4.84	23,812.00	15.15	360,790.32
Swimming	28.54	140,371.30	28.32	3,976,004.30
Fishing	24.58	120,881.19	9.00	1,088,416.30
Hunting	14.88	73,178.62	6.00	439,151.92
Sailing	0.44	2,165.75	5.07	10,974.79
Canoeing	10.52	51,736.59	10.10	522,356.76
Power Boating	3.70	18,201.77	11.84	215,444.97
Water Skiing	3.12	15,375.32	10.02	154,086.28
Cross-country Skiing	9.47	46,550.32	18.02	838,984.50
Snowshoeing	0.95	4,695.98	6.89	32,364.17
Downhill Skiing	3.03	14,911.98	6.96	103,801.95
Snowsledding-Tobogganing	17.75	87,270.95	6.20	541,096.11
Outdoor Ice Skating	12.15	59,790.68	13.44	803,352.17
Snowmobiling	14.97	73,620.76	23.13	1,702,846.62

*Based on a population level of 491,805.

TABLE 25 - Continued

Activity	Participation Rate (%)	Number of Participants*	Average Frequency of Participation	Number of Participant Days
Trail Biking	0.44	2,151.10	9.68	20,823.20
Cross-country Biking	0.10	502.72	32.94	16,561.22
Off-road Four Wheel Driving	0.32	1,562.55	32.89	51,397.85
Golfing	11.05	54,359.54	14.15	769,021.95
Tennis	6.36	31,292.02	13.85	920,143.36
Cottaging	8.92	43,851.02	11.27	494,052.09
Visiting Provincial Parks	57.04	280,512.86	5.31	1,489,907.53

*Based on a population level of 491,805.

TABLE 26

DEMAND

NUMBER OF PARTICIPANT DAYS BY ACTIVITY FOR URBAN MANITOBA

Activity	Participation Rate (%)	Number of Participants*	Average Frequency of Participation	Number of Participant Days
Camping	26.03	158,024.73	9.00	1,422,866.56
Picnicking	36.29	220,300.26	5.80	1,276,713.31
Visiting Historic Sites	24.10	146,292.60	3.55	519,626.78
Driving for Pleasure	30.92	187,732.39	14.83	2,784,698.99
Walking or Hiking	35.74	216,974.32	19.79	4,295,897.20
Back Packing	3.00	18,209.85	8.12	147,947.12
Bicycling	20.51	124,535.87	17.76	2,211,724.58
Horseback Riding	6.00	36,407.41	5.85	213,105.71
Swimming	39.42	239,295.09	29.07	1,058,437.54
Fishing	23.04	139,889.43	9.03	1,263,728.38
Hunting	6.41	38,906.55	8.16	317,443.43
Sailing	2.96	17,943.05	7.88	141,458.56
Canoeing	11.65	72,219.18	5.42	391,201.69
Power Boating	11.74	71,245.36	10.44	743,467.50
Water Skiing	8.36	50,776.32	6.59	334,791.93
Cross-country Skiing	14.02	85,096.31	14.10	1,200,253.86
Snowshoeing	2.89	17,501.00	6.38	111,699.94
Downhill Skiing	6.41	38,932.78	10.43	406,122.51
Snowsledding-Tobogganing	20.99	127,453.41	6.39	813,823.94
Outdoor Ice Skating	22.30	135,370.06	10.85	1,468,372.50
Snowmobiling	7.84	47,591.60	9.45	449,827.17

*Based on a population level of 607,099.

TABLE 26 - Continued

Activity	Participation Rate (%)	Number of Participants*	Average Frequency of Participation	Number of Participant Days
Trail Biking	1.34	8,068.30	12.42	100,179.35
Cross-country Biking	0.64	3,892.65	12.27	47,746.70
Off-road Four Wheel Driving	0.47	2,833.00	2.80	7,943.02
Golfing	16.60	100,803.18	12.07	1,217,093.12
Tennis	14.05	85,298.20	10.79	433,509.61
Cottaging	16.78	101,860.08	15.22	1,550,324.73
Visiting Provincial Parks	59.59	361,795.36	7.97	2,884,219.42

*Based on a population level of 607,099.

The percentage of total participant days examines the distribution of participant days for the rural-urban breakdown (Table 27). This analysis indicates a greater number of participant days for the rural sector in driving for pleasure, horseback riding, swimming, hunting, canoeing, snowmobiling, off-road four wheel driving and tennis. Percentages ± 3% from 50% were considered as being different enough to mention. If one considers the fact that the urban sector contains 55% of the total population then the percentage of participant days less than 52% (55% ± 3%) would be considered in favor of the rural sector. In this case, picnicking and walking or hiking can be added to the above list.

The urban sector has a higher percentage of participant days for the activities of camping, visiting historic sites, back packing, bicycling, sailing, power boating, water skiing, cross-country skiing, snowshoeing, downhill skiing, snowsledding-tobogganing, outdoor ice skating, trail biking, cross-country biking, golfing, cottaging and visiting provincial parks. This selection of participation is based upon urban total participant days greater than 58% (55% ± 3%).

An examination of participant days is a more realistic analysis in terms of recreational participation as it concerns both the number of people who participate and the frequency at which they participate.

C. Regional Analysis.—The regional analysis of participation rates, participation frequency and participant days is discussed by activity in this section. The participation rates and frequencies are contained in Table 28. The information associated with the number of participants and number of participant days for each of the regions are located in Tables 29 through to 35. The per capita annual participation in each of the regions for the selected activities is listed in Table 36.

TABLE 27

DEMAND

PERCENTAGE OF TOTAL PARTICIPANT DAYS
BY ACTIVITY (RURAL-URBAN PERCENTAGES)

Activity	% Urban	% Rural
Camping	58.87	41.13
Picnicking	51.43	48.57
Visiting Historic Sites	60.83	39.17
Driving for Pleasure	44.13	55.87
Walking or Hiking	48.44	51.56
Back Packing	77.77	22.23
Bicycling	58.26	41.74
Horseback Riding	37.13	62.87
Swimming	21.02	78.98
Fishing	53.73	46.27
Hunting	41.96	58.04
Sailing	92.80	7.20
Canoeing	42.82	57.18
Power Boating	77.53	22.47
Water Skiing	68.48	31.52
Cross-country Skiing	58.86	41.14
Snowshoeing	77.53	22.47
Downhill Skiing	79.64	20.36
Snowsledding-Tobogganing	60.06	39.94
Outdoor Ice Skating	64.64	35.36
Snowmobiling	20.90	79.10
Trail Biking	82.79	17.21
Cross-country Biking	74.25	25.75
Off-road Four Wheel Driving	13.39	86.61
Golfing	61.28	38.72
Tennis	32.03	67.97
Cottaging	75.83	24.17
Visiting Provincial Parks	65.94	34.06

TABLE 28

REGIONAL PARTICIPATION RATES & FREQUENCIES
IN SELECTED OUTDOOR RECREATIONAL ACTIVITIES

- % Participation - Frequency Activity	Winnipeg Region	Winkler Region	Brandon Region	Dauphin Region	Interlake Region	The Pas Region	Northern Region
Camping	25.41 8.71	27.14 4.36	22.78 7.64	18.52 10.01	18.65 14.39	34.46 13.59	30.28 9.90
Picnicking	36.61 5.87	37.78 5.75	31.55 6.83	34.81 8.03	32.99 6.86	55.42 5.33	39.32 7.65
Visiting Historic Sites	22.41 3.51	16.29 4.20	18.64 4.50	10.75 2.84	14.28 1.95	30.17 1.96	17.95 6.80
Driving For Pleasure	33.00 14.76	45.20 26.15	42.29 18.81	33.53 18.04	42.17 21.39	51.76 9.37	42.66 13.75
Walking or Hiking	36.59 20.78	37.56 24.89	35.49 27.73	29.58 27.16	33.15 32.98	57.92 18.22	41.25 18.50
Back Packing	2.26 7.18	0.00 0.00	1.64 27.77	0.95 7.06	0.00 0.00	2.50 1.72	1.44 8.04
Bicycling	19.39 18.63	13.23 20.56	17.80 24.47	13.61 24.24	9.49 30.80	20.87 5.79	15.41 11.56
Horseback Riding	6.01 8.08	5.25 11.86	4.62 17.68	4.68 17.80	4.91 24.00	0.00 0.00	4.05 2.54
Swimming	37.38 13.19	30.54 8.85	25.41 15.17	26.94 14.45	14.24 17.86	44.09 14.00	30.27 13.28
Fishing	23.71 10.30	20.91 4.44	21.00 5.33	19.29 8.49	23.36 11.76	47.91 5.01	32.44 7.42
Hunting	8.08 8.17	12.91 2.26	12.74 4.44	16.78 9.23	23.34 7.57	27.51 2.90	12.73 4.25
Sailing	2.28 8.06	0.00 0.00	2.39 4.69	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
Canoeing	11.40 6.27	9.24 6.51	11.20 11.94	6.36 8.52	0.00 0.00	27.90 11.53	12.68 8.06

TABLE 28 - Continued

- % Participation / - Frequency Activity	Winnipeg Region	Winkler Region	Brandon Region	Dauphin Region	Interlake Region	The Pas Region	Northern Region
Power Boating	9.49 / 10.41	0.90 / 11.80	3.92 / 15.94	8.95 / 10.30	4.64 / 35.57	16.15 / 4.17	3.83 / 13.48
Water Skiing	6.98 / 7.20	4.98 / 4.33	2.81 / 14.37	1.70 / 4.30	4.65 / 3.91	11.78 / 5.18	3.91 / 9.91
Cross-country Skiing	12.94 / 15.02	9.06 / 21.31	10.31 / 13.98	7.08 / 19.97	7.44 / 39.97	13.82 / 15.99	11.26 / 13.87
Snowshoeing	2.37 / 5.98	0.96 / 1.26	0.68 / 5.45	0.84 / 4.16	0.00 / 0.00	2.25 / 1.70	2.73 / 15.27
Downhill Skiing	5.44 / 9.97	3.15 / 11.14	3.60 / 5.23	1.89 / 3.25	0.00 / 0.00	4.74 / 7.10	6.35 / 10.47
Snowsledding-Tobogganing	20.34 / 6.45	15.28 / 6.84	18.26 / 5.70	11.67 / 7.40	9.51 / 4.89	27.88 / 4.90	22.65 / 5.74
Outdoor Ice Skating	20.17 / 12.24	11.10 / 8.46	14.68 / 10.02	9.78 / 10.11	4.64 / 7.09	18.91 / 3.42	11.36 / 12.37
Snowmobiling	9.37 / 14.46	17.18 / 21.92	12.92 / 26.23	14.40 / 21.63	23.57 / 25.82	18.91 / 12.64	12.63 / 18.95
Trail Biking	1.14 / 11.83	0.89 / 5.08	0.25 / 1.37	0.00 / 0.00	0.00 / 0.00	0.00 / 0.00	1.16 / 20.06
Cross-Country Biking	0.47 / 11.00	0.00 / 0.00	0.00 / 0.00	0.00 / 0.00	0.00 / 0.00	0.00 / 0.00	1.22 / 29.95
Off-road Four Wheel Driving	0.33 / 2.50	0.00 / 0.00	0.00 / 0.00	1.78 / 29.20	0.00 / 0.00	0.00 / 0.00	1.23 / 26.47
Golfing	15.65 / 11.66	1.68 / 10.52	16.38 / 12.12	2.37 / 19.88	5.50 / 7.30	16.83 / 15.61	14.49 / 26.19
Tennis	12.41 / 10.64	6.13 / 30.44	7.00 / 10.96	4.50 / 16.29	4.47 / 11.71	6.98 / 8.47	8.52 / 15.84
Cottaging	14.29 / 15.35	4.94 / 8.39	10.68 / 10.71	11.60 / 8.14	0.00 / 0.00	11.44 / 10.15	17.78 / 11.34
Visiting Provincial Parks	58.97 / 7.20	57.67 / 5.55	55.96 / 5.45	50.85 / 3.65	64.61 / 3.23	64.61 / 6.29	61.43 / 9.02

TABLE 29

DEMAND

NUMBER OF PARTICIPANT DAYS BY ACTIVITY FOR THE WINNIPEG REGION

Activity	Participation Rate (%)	Number of Participants*	Average Frequency of Participation	Number of Participant Days
Camping	25.41	192,213.18	8.71	1,674,176.80
Picnicking	36.61	276,935.25	5.87	1,625,609.92
Visiting Historic Sites	22.41	169,519.77	3.51	594,387.65
Driving for Pleasure	33.00	249,627.51	14.76	3,684,502.05
Walking or Hiking	36.59	276,783.96	20.78	5,751,570.69
Back Packing	2.26	17,095.70	7.18	122,747.13
Bicycling	19.39	146,675.07	18.63	2,732,556.55
Horseback Riding	6.01	45,462.46	8.08	367,336.68
Swimming	37.38	282,759.89	13.19	3,729,602.95
Fishing	23.71	175,268.77	10.30	1,805,268.33
Hunting	8.08	61,120.92	8.17	499,357.92
Sailing	2.28	17,246.99	8.06	139,010.74
Canoeing	11.40	86,234.96	6.27	540,693.20
Power Boating	9.49	71,786.82	10.41	747,300.80
Water Skiing	6.98	52,800.00	7.20	380,160.00
Cross-country Skiing	12.94	97,884.24	15.02	1,470,221.29
Snowshoeing	2.37	17,927.79	5.98	107,208.18
Downhill Skiing	5.44	41,150.72	9.97	410,272.68
Snowsledding-Tobogganing	20.34	153,861.32	6.45	992,405.51
Outdoor Ice Skating	20.17	152,575.36	12.24	1,867,552.41
Snowmobiling	9.37	70,879.08	14.66	1,039,087.31

*Based on a population level of 756,447.

TABLE 29 - Continued

Activity	Participation Rate (%)	Number of Participants*	Average Frequency of Participation	Number of Participant Days
Trail Biking	1.14	8,623.50	11.83	102,016.01
Cross-country Biking	0.47	3,555.30	11.00	39,108.30
Off-road Four Wheel Driving	0.33	2,496.28	2.50	6,240.70
Golfing	15.65	118,383.96	11.66	1,380,356.97
Tennis	12.41	93,875.07	10.64	998,830.74
Cottaging	14.29	108,096.28	15.35	1,659,277.90
Visiting Provincial Parks	58.97	446,076.80	7.20	3,211,752.96

*Based on a population level of 756,447.

TABLE 30

DEMAND

NUMBER OF PARTICIPANT DAYS BY ACTIVITY FOR THE WINKLER REGION

Activity	Participation Rate (%)	Number of Participants*	Average Frequency of Participation	Number of Participant Days
Camping	27.14	15,170.17	4.36	66,141.94
Picnicking	37.78	21,117.51	5.75	121,425.68
Visiting Historic Sites	16.29	9,105.46	4.20	38,275.84
Driving for Pleasure	45.20	25,264.99	26.15	660,679.49
Walking or Hiking	37.56	20,994.54	24.89	522,554.10
Back Packing	0.00	0.00	0.00	0.00
Bicycling	13.23	7,395.04	20.56	152,042.02
Horseback Riding	5.25	2,934.54	11.86	34,803.64
Swimming	30.54	17,070.64	8.85	151,075.16
Fishing	20.91	11,687.85	4.44	51,894.05
Hunting	12.91	7,216.17	2.26	16,308.54
Sailing	0.00	0.00	0.00	0.00
Canoeing	9.24	5,164.79	6.51	33,622.78
Power Boating	0.90	503.06	11.80	5,936.11
Water Skiing	4.98	2,783.62	4.33	12,053.07
Cross-country Skiing	9.06	5,064.18	21.31	107,917.68
Snowshoeing	0.96	536.60	1.26	676.12
Downhill Skiing	3.15	1,760.72	11.14	19,614.42
Snowsledding-Tobogganing	15.28	8,540.91	6.84	58,419.82
Outdoor Ice Skating	11.10	6,204.46	8.46	52,489.73
Snowmobiling	17.18	9,602.93	21.92	210,496.23

*Based on a population level of 55,896.

TABLE 30 - Continued

Activity	Participation Rate (%)	Number of Participants*	Average Frequency of Participation	Number of Participant Days
Trail Biking	0.89	497.47	5.08	2,527.15
Cross-country Biking	0.00	0.00	0.00	0.00
Off-road Four Wheel Driving	0.00	0.00	0.00	0.00
Golfing	1.68	939.05	10.52	9,878.81
Tennis	6.13	3,426.42	30.44	104,163.17
Cottaging	4.94	2,761.26	8.39	23,166.97
Visiting Provincial Parks	57.67	32,235.22	5.55	178,905.47

*Based on a population level of 55,896.

TABLE 31

DEMAND

NUMBER OF PARTICIPANT DAYS BY ACTIVITY FOR THE BRANDON REGION

Activity	Participation Rate (%)	Number of Participants*	Average Frequency of Participation	Number of Participant Days
Camping	22.78	27,276.54	7.64	208,392.77
Picnicking	31.55	37,777.65	6.83	258,021.35
Visiting Historic Sites	18.64	22,319.35	4.50	100,649.39
Driving for Pleasure	42.29	50,637.62	18.81	952,493.63
Walking or Hiking	35.49	42,495.06	27.73	1,178,388.01
Back Packing	1.64	1,963.72	27.77	54,532.50
Bicycling	17.80	21,313.53	24.47	521,542.08
Horseback Riding	4.62	5,531.94	17.68	97,804.70
Swimming	25.41	30,425.68	15.17	461,557.57
Fishing	21.00	25,145.19	5.33	134,023.86
Hunting	12.74	15,254.75	4.44	67,731.09
Sailing	2.39	2,861.76	4.69	13,421.65
Canoeing	11.20	13,410.77	11.94	160,124.59
Power Boating	3.92	4,693.77	15.94	74,817.58
Water Skiing	2.81	3,364.67	14.37	48,350.31
Cross-country Skiing	10.31	12,345.09	13.98	172,584.36
Snowshoeing	0.68	814.23	5.45	4,437.55
Downhill Skiing	3.60	4,310.60	5.23	22,544.44
Snowsledding-Tobogganing	18.16	21,744.60	5.70	123,944.22
Outdoor Ice Skating	14.68	17,577.69	10.02	176,128.45
Snowmobiling	12.92	15,470.28	26.23	405,785.44

*Based on a population level of 119,739.

TABLE 31 - Continued

Activity	Participation Rate (%)	Number of Participants*	Average Frequency of Participation	Number of Participant Days
Trail Biking	0.25	299.35	1.37	410.11
Cross-country Biking	0.00	0.00	0.00	0.00
Off-road Four Wheel Driving	0.00	0.00	0.00	0.00
Golfing	16.38	19,613.25	12.12	237,712.59
Tennis	7.00	8,381.73	10.96	91,863.76
Cottaging	10.68	13,027.60	10.71	139,525.60
Visiting Provincial Parks	55.96	67,005.94	5.45	365,182.37

*Based on a population level of 119,739.

TABLE 32

DEMAND

NUMBER OF PARTICIPANT DAYS BY ACTIVITY FOR THE DAUPHIN REGION

Activity	Participation Rate (%)	Number of Participants*	Average Frequency of Participation	Number of Participant Days
Camping	18.52	10,921.43	10.01	109,323.51
Picnicking	34.81	20,527.81	8.03	164,838.31
Visiting Historic Sites	10.75	6,339.38	2.84	18,065.39
Driving for Pleasure	33.53	19,772.98	18.04	356,704.56
Walking or Hiking	29.58	17,431.83	27.16	473,448.50
Back Packing	0.95	560.22	7.06	3,955.15
Bicycling	13.61	8,025.95	24.24	194,549.03
Horseback Riding	4.68	2,759.84	17.80	49,125.15
Swimming	26.94	15,886.79	14.45	229,564.12
Fishing	19.29	11,375.51	8.49	96,578.08
Hunting	16.78	9,895.33	9.23	91,333.90
Sailing	0.00	0.00	0.00	0.00
Canoeing	6.36	3,750.56	8.52	31,954.77
Power Boating	8.95	5,277.90	10.30	54,362.37
Water Skiing	1.70	1,002.51	4.30	4,310.79
Cross-country Skiing	7.08	4,175.15	19.97	83,377.75
Snowshoeing	0.84	500.31	4.16	2,081.29
Downhill Skiing	1.89	1,114.55	3.25	3,622.29
Snowsledding-Tobogganing	11.67	6,881.92	7.40	50,926.21
Outdoor Ice Skating	9.78	5,767.36	10.11	58,280.83
Snowmobiling	14.40	8,491.82	21.63	183,678.07

*Based on a population level of 58,971.

TABLE 32 - Continued

Activity	Participation Rate (%)	Number of Participants*	Average Frequency of Participation	Number of Participant Days
Trail Biking	0.00	0.00	0.00	0.00
Cross-country Biking	0.00	0.00	0.00	0.00
Off-road Four Wheel Driving	1.78	1,049.68	29.20	30,650.66
Golfing	2.37	1,397.61	19.88	27,784.49
Tennis	4.50	2,653.70	16.29	43,228.77
Cottaging	11.60	6,840.64	8.14	55,682.81
Visiting Provincial Parks	50.85	29,986.75	3.65	109,451.64

*Based on a population level of 58,971.

TABLE 33

DEMAND

NUMBER OF PARTICIPANT DAYS BY ACTIVITY FOR THE INTERLAKE REGION

Activity	Participation Rate (%)	Number of Participants*	Average Frequency of Participation	Number of Participant Days
Camping	18.65	2,806.83	14.39	40,390.28
Picnicking	32.99	4,965.00	6.86	34,059.90
Visiting Historic Sites	14.28	2,149.14	1.95	4,184.60
Driving for Pleasure	42.17	6,346.59	21.39	135,753.56
Walking or Hiking	33.15	4,989.08	32.98	164,539.86
Back Packing	0.00	0.00	0.00	0.00
Bicycling	9.49	1,428.25	30.80	43,990.10
Horseback Riding	4.91	738.96	24.00	17,735.04
Swimming	14.24	2,143.12	17.86	38,276.12
Fishing	23.26	3,500.63	11.76	41,167.41
Hunting	23.34	3,512.67	7.57	26,590.91
Sailing	0.00	0.00	0.00	0.00
Canoeing	0.00	0.00	0.00	0.00
Power Boating	4.64	698.32	35.57	24,839.24
Water Skiing	4.65	699.83	3.91	2,736.34
Cross-country Skiing	7.44	1,119.72	39.97	44,755.21
Snowshoeing	0.00	0.00	0.00	0.00
Downhill Skiing	0.00	0.00	0.00	0.00
Snowsledding-Tobogganing	9.51	1,431.26	4.89	6,998.86
Outdoor Ice Skating	4.64	698.32	7.09	4,951.09
Snowmobiling	23.57	3,547.29	25.82	91,591.03

*Based on a population level of 15,050.

TABLE 33 - Continued

Activity	Participation Rate (%)	Number of Participants*	Average Frequency of Participation	Number of Participant Days
Trail Biking	0.00	0.00	0.00	0.00
Cross-country Biking	0.00	0.00	0.00	0.00
Off-road Four Wheel Driving	0.00	0.00	0.00	0.00
Golfing	5.50	827.75	7.30	6,042.58
Tennis	4.47	717.89	11.71	8,406.49
Cottaging	0.00	0.00	0.00	0.00
Visiting Provincial Parks	64.61	15,401.09	3.23	29,842.62

*Based on a population level of 15,050.

TABLE 34

DEMAND

NUMBER OF PARTICIPANT DAYS BY ACTIVITY FOR THE PAS REGION

Activity	Participation Rate (%)	Number of Participants*	Average Frequency of Participation	Number of Participant Days
Camping	34.46	8,214.23	13.59	111,631.39
Picnicking	55.42	13,210.47	5.33	70,411.81
Visiting Historic Sites	30.17	7,191.62	1.96	14,203.17
Driving for Pleasure	51.76	12,338.03	9.37	115,607.34
Walking or Hiking	57.92	13,805.39	18.22	251,534.21
Back Packing	2.50	595.93	1.72	1,025.00
Bicycling	20.87	4,974.78	5.79	28,803.98
Horseback Riding	0.00	0.00	0.00	0.00
Swimming	44.09	10,509.73	14.00	147,136.22
Fishing	47.91	11,420.31	5.01	57,215.75
Hunting	27.51	6,557.56	2.90	19,016.92
Sailing	0.00	0.00	0.00	0.00
Canoeing	27.90	6,650.52	11.53	76,680.50
Power Boating	16.15	3,849.68	4.17	16,053.17
Water Skiing	11.78	2,808.00	5.18	14,545.44
Cross-country Skiing	13.82	3,294.27	15.99	52,675.38
Snowshoeing	2.25	536.33	1.70	911.76
Downhill Skiing	4.74	1,129.87	7.10	8,022.08
Snowsledding-Tobogganing	27.88	6,645.76	4.90	32,564.22
Outdoor Ice Skating	18.91	4,507.58	3.42	15,415.92
Snowmobiling	18.91	4,507.58	12.64	56,975.81

*Based on a population level of 23,837.

Activity	Participation Rate (%)	Number of Participants*	Average Frequency of Participation	Number of Participant Days
Trail Biking	0.00	0.00	0.00	0.00
Cross-country Biking	0.00	0.00	0.00	0.00
Off-road Four Wheel Drive	0.00	0.00	0.00	0.00
Golfing	16.83	4,011.77	15.61	62,623.73
Tennis	6.98	1,663.82	8.47	14,092.56
Cottaging	11.44	2,726.95	10.15	27,678.54
Visting Provincial Parks	64.61	15,401.09	6.29	96,872.86

*Based on a population level of 23,837.

TABLE 35

DEMAND

NUMBER OF PARTICIPANT DAYS BY ACTIVITY FOR THE NORTHERN REGION

Activity	Participation Rate (%)	Number of Participants*	Average Frequency of Participation	Number of Participant Days
Camping	30.28	20,882.30	9.90	206,734.70
Picnicking	39.32	27,116.64	7.65	207,824.80
Visiting Historic Sites	17.95	12,385.93	6.80	84,447.20
Driving for Pleasure	42.66	29,420.04	13.75	404,525.55
Walking or Hiking	41.25	28,447.66	18.50	526,281.71
Back Packing	1.44	993.08	8.04	7,984.36
Bicycling	15.41	10,627.35	11.56	122,852.17
Horseback Riding	4.05	2,793.04	2.54	7,094.32
Swimming	30.27	20,875.40	13.28	277,225.31
Fishing	32.44	22,371.92	7.42	165,999.65
Hunting	12.73	8,530.85	4.25	36,256.11
Sailing	0.00	0.00	0.00	0.00
Canoeing	12.68	8,744.64	8.06	70,481.80
Power Boating	3.83	2,641.32	13.48	35,604.99
Water Skiing	3.91	2,696.49	9.91	26,722.22
Cross-country Skiing	11.26	7,765.35	13.87	107,705.40
Snowshoeing	2.73	1,882.72	15.27	28,749.13
Downhill Skiing	6.35	4,379.21	10.47	45,850.33
Snowsledding-Tobogganing	22.65	15,620.35	5.74	89,660.81
Outdoor Ice Skating	11.36	7,834.31	12.37	96,910.41
Snowmobiling	12.63	8,710.15	18.95	165,057.34

*Based on a population level of 68,964.

TABLE 35 - Continued

Activity	Participation Rate (%)	Number of Participants*	Average Frequency of Participation	Number of Participant Days
Trail Biking	1.16	799.98	20.06	16,047.60
Cross-country Biking	1.22	841.36	29.95	25,198.73
Off-road Four Wheel Driving	1.23	848.26	26.47	22,453.44
Golfing	14.49	9,992.88	26.19	261,713.53
Tennis	8.52	5,875.73	15.84	93,071.56
Cottaging	17.78	12,261.80	11.34	139,048.81
Visiting Provincial Parks	61.43	42,364.59	9.02	382,128.60

*Based on a population level of 68,964.

It is apparent from Table 36 that The Pas population has the highest participation rates in more than half of the selected activities. But it also has the lowest frequency rates in half of these activities. This indicates that The Pas region participates in a more varied selection of activities and as a result participates fewer times in each activity compared to the other regions. A possible explanation for this phenomenon could lie in the fact that most of the facilities in the northern areas are located fairly close to the population. This is substantiated by the fact that the Northern region is second to The Pas region in having the highest participation rates for the most activities.

The Dauphin region has the most activities exhibiting the lowest participation rates. The Interlake region also shows a general trend of low participation rates (Table 28).

A combination analysis of both participation rates and frequencies produce per capita annual participant days (Table 36). The Winnipeg region has the greatest number of activities having a relatively high per capita annual participation. The Northern region is second to the Winnipeg region. The Interlake region has the most activities with the lowest per capita annual participation.

TABLE 36

PER CAPITA ANNUAL PARTICIPANT DAYS

BY NATURAL REGIONS

Activity	Winnipeg Region	Winkler Region	Brandon Region	Dauphin Region	Interlake Region	The Pas Region	Northern Region
amping	2.21	1.18	1.74	1.85	2.68	4.68	2.99
icnicking	2.14	2.17	2.15	2.79	2.26	2.95	3.00
isiting Historic Sites	0.78	0.68	0.83	0.30	0.27	0.59	1.22
riving for Pleasure	4.87	11.81	7.95	6.04	9.02	4.84	5.86
alking or Hiking	7.60	9.34	9.84	8.03	10.93	10.55	7.63
ack Packing	0.16	0.00	0.45	0.06	0.00	0.04	0.11
icycling	3.61	2.72	4.35	3.29	2.92	1.20	1.78
orseback Riding	0.48	0.62	0.81	0.83	1.17	0.00	0.10
imming	4.93	2.70	3.85	3.89	2.54	6.17	4.01
shing	2.44	0.92	1.11	1.63	2.74	2.40	2.40
nting	0.66	0.29	0.56	1.54	1.76	0.79	0.54
iling	0.18	0.00	0.11	0.00	0.00	0.00	0.00
noeing	0.71	0.60	1.33	0.54	0.00	3.21	1.02
wer Boating	0.98	0.10	0.62	0.92	1.65	0.67	0.51
ter Skiing	0.50	0.21	0.40	0.07	0.18	0.61	0.38
oss Country Skiing	1.94	1.93	1.44	1.41	2.97	2.20	1.56
owshoeing	0.14	0.01	0.03	0.03	0.00	0.03	0.41
nhill Skiing	0.54	0.35	0.18	0.06	0.00	0.33	0.66
owsledding - Tobogganing	1.31	1.05	1.04	0.86	0.46	1.36	1.30
door Ice Skating	2.46	0.93	1.47	0.98	0.32	0.64	1.40
wmobiling	1.35	3.76	3.38	3.11	6.08	2.39	2.39

TABLE 36 - Continued

Activity	Winnipeg Region	Winkler Region	Brandon Region	Dauphin Region	Interlake Region	The Pas Region	Northern Region
Trail Biking	0.13	0.04	0.00	0.00	0.00	0.00	0.23
Cross-Country Biking	0.05	0.00	0.00	0.00	0.00	0.00	0.36
Off-Road Four Wheel Driving	0.00	0.00	0.00	0.51	0.00	0.00	0.32
Golfing	1.82	0.71	1.98	0.47	0.40	2.62	3.79
Tennis	1.32	1.86	0.76	0.73	0.52	0.59	1.35
Cottaging	2.19	0.41	1.14	0.94	0.00	1.16	2.01
Visiting Provincial Parks	4.24	3.20	3.04	1.85	2.08	4.06	5.54

APPENDIX G

ANALYSIS OF SUPPLY

APPENDIX G

ANALYSIS OF SUPPLY

The analysis of the supply of outdoor recreational facilities is done on a provincial, rural-urban and regional basis by activity.

A. Facility Analysis.

(1) Camping.—There are four levels of administration with regard to campsites. The majority of campsites fall under the jurisdiction of the Provincial Government. There are just over ten thousand campsites located within federal parks, provincial natural parks, provincial recreation parks, provincial campgrounds and provincial wayside parks. The remainder of the campsites in the province, almost six thousand, are under the jurisdiction of rural municipalities and/or local government districts, communities, and private concerns (Table 37).

Table 38 is a summary list of the provincial parkland camping facilities by the Parks Branch regions. The majority of the campsites are unserviced sites (65.6%). The fully serviced sites (sites serviced by water, sewer and electricity) and electrical sites (sites serviced by electricity only) are 3.4% and 9.5% of the total, respectively. The overflow sites represent 21.5% of the total number of provincial Parks Branch campsites.

The municipal, community and private campsites are grouped into a 'private' category for the purposes of this thesis. The Parks Branch

TABLE 37

CAMPSITES BY NATURAL REGIONS

Natural Region R.M. or L.G.D.	Location	Number of Campsites				
		Un-Serviced	Electrical	Fully Serviced	Over-Flow	RM or LGD Total
Winnipeg						
Alexander (L.G.D.)	P - Poplar Bay	45				
	P - Winnipeg River Marine No. 3	12				
*Bifrost (R.M.)	- Arborg, Kinsmen Park	6				57
	P - Hnausa Beach	10				
Brokenhead (R.M.)	- Beausejour, Brokenhead River Park	100	46			16
*Coldwell (R.M.)	P - Lundar Beach	20			8	146
*De Salaberry (R.M.)	P - St. Malo	40	24		75	28
*Dufferin (R.M.)	- Carman, King's Park			20		139
	P - Stephenfield	71				
Gimli (R.M.)	- Arnes, Spruce Sands Trailer Park	100		200		91
	- Gimli, Almonds Park	10	40	28		
	- Gimli Trailer Park	35	84	55		552
*Grey (R.M.)	- St. Claude, Bambi Gardens Resort	35	10	1		46
Hanover (R.M.)	- Grunthal, Green Valley Park	25				
	- Steinbach, Family Campground	15	10			50
Lac du Bonnet (R.M.)	- Lac du Bonnet, Camp Hide-Away	20	6			
	- Lac du Bonnet, Pioneer Beach	30	50			
	- Lac du Bonnet, Riverdale Camp	30				
	P - Lee River	20			5	
	P - Winnipeg River Marine No. 1	10				
	P - Winnipeg River Marine No. 2	10				181
*Morris (R.M.)	- Morris Centennial Park	25	8			33
Piney (L.G.D.)	- Sprague, South Junction Park	10	10			20

*Half Supply Counted. P - Campgrounds within the Provincial and Federal Parks Systems.

TABLE 37 - Continued

Natural Region R.M. or L.G.D.	Location	Number of Campsites				
		Un-Serviced	Electrical	Fully Serviced	Over-Flow	RM or LGD Total
Winnipeg (Cont'd)						
Portage la Prairie (R.M.)	P - Norquay	98	24			
	- Prawda, Pine Tree Campground	26	9			
	P - St. Ambroise Beach	100			20	177
Reynolds (L.G.D.)	P - Pinegrove Halt	114				114
Ritchot (R.M.)	- St. Adolphe Park	50	10			60
Rockwood (R.M.)	P - Norris Lake	20				
	- Stonewall, Kinsmen Campground	20	36	28		104
St. Andrews (R.M.)	P - Netley Creek	20				
	- Petersfield, Chesley's Resort	50	30	117		
	- Petersfield, Forall Campground			101		
	- Selkirk, Municipal Campground	400	40			
	- Winnipeg Beach, Acres of Fun Camp	10	2			
	- Winnipeg Beach, Lakeside Trailer Park	33	119	18		
	- Winnipeg Beach, Wildwood Tourist Park		100	3		1,043
Ste. Anne (R.M.)	- Richer, Rock Garden Camp	50				
	- Ste. Anne, Lilac Motel & Camp	50	20	7		
	- Ste. Anne Park	20	16			163
St. Clements (R.M.)	P - Grand Beach	295	110			
	- Grand Marias, Hilltop Cabins	2	9			
	- Scanterbury, Wild Drum Resort	50				466
St. Laurent (R.M.)	- Oak Point, Shallow Point Park	12	12			
	- St. Laurent Sunshine Resort	5	35			64
Springfield (R.M.)	P - Birds Hill	350	104	45	1,200	1,699

*Half Supply Counted. P -Campgrounds within the Provincial and Federal Parks Systems.

TABLE 37 - Continued

Natural Region R.M. or L.G.D.	Location	Number of Campsites				
		Un-Serviced	Electrical	Fully Serviced	Over-Flow	RM or LGD Total
Winnipeg (Cont'd)						
Whitemouth (R.M.)	- Elma, Oak Falls Campground	20	20			40
Winnipeg Unorganized	P - Birch Falls	10				
	P - Curries Landing	15				
	- Manigotagan, O'Hanly Campground	41				
	P - Moose Lake	200				
	P - Nopiming - Bird Lake	45				
	- Beresford Lake	10				
	- Caribou Landing	64				
	- Long Lake	30			16	
	- Manigotagan River	10				
	- Tulibi Falls	10				
	P - Silver Falls	10				
	P - Wallace Lake	50				
	P - Wanipigow Lake	50			39	
	P - Whiteshell - Betula Lake	34			15	
	- Big Whiteshell Lake	170				
	- Brereton Lake	43	45			
	- Caddy Lake	31	17			
	- Dorothy Lake		42			
	- Falcon Lake	339	115	156	150	
	- Lone Island	99			20	
	- Nutimik Lake	244				
	- Opapiskow Lake	85				
	- Otter Falls	17	40			
	- Toniata Beach	22	58			
	- West Hawk Lake	88	151	67		2,852
Woodlands (R.M.)	- Miami Beach	10	50			60
Region Total:		4,305	1,502	846	1,548	8,201

*Half Supply Counted. P - Campgrounds within the Provincial and Federal Parks Systems.

TABLE 37 - Continued

Natural Region R.M. or L.G.D.	Location	Number of Campsites				
		Un-Serviced	Electrical	Fully Serviced	Over-Flow	RM or LGD Total
Winkler						
*Argyle (R.M.)	P - Rock Lake	17				
	- Rock Lake Avery's Resort	10	15			42
*De Salaberry (R.M.)	P - St. Malo	40	24		75	139
*Dufferin (R.M.)	- Carman King's Park			20		
	P - Stephenfield	71				91
*Grey (R.M.)	- St. Claude, Bambi Gardens Resort	35	10	1		46
Louise (R.M.)	- Pilot Mound, Cover's Grove Park	20	25			
	- Pilot Mound, Lakeview Heights Camp	10	40			
	- Pilot Mound Park	8	12			115
Montcalm (R.M.)	- Emerson Centennial Park	25	25			
	- Lettellier Park	8	8			
	- Lettellier Marais River Park		10			
	- St. Jean Regional Recreation Park	42	20			138
*Morris (R.M.)	- Morris Centennial Park	25	7			32
Pembina (R.M.)	- La Riviere Pembina Valley Park	10	10			20
Rhineland (R.M.)	- Altona Centennial Park	6	2			8
*Roblin (R.M.)	- Cartwright, Rock Lake Resort	7	6	6		19
South Norfolk (R.M.)	- Treherne, Cottonwood Campsite	20		30		50
Stanley (R.M.)	- Morden, Colert Beach	15	60			
	- Morden, Stanley Centennial Park	100				
	- Winkler, Tourist Park	20	16			211
Thompson (R.M.)	- Miami Citizens Park	10	10			20
Region Total:		493	306	57	75	931

*Half Supply Counted. P - Campgrounds within the Provincial and Federal Parks Systems.

TABLE 37 - Continued

Natural Region R.M. or L.G.D.	Location	Number of Campsites				
		Un-Serviced	Electrical	Fully Serviced	Over-Flow	RM or LGD Total
Brandon						
*Argyle (R.M.)	P - Rock Lake	18				
	- Rock Lake, Avery's Resort	10	15			43
*Clanwilliam (R.M.)	- Erickson, Fertrude Lake	8				8
Daly (R.M.)	P - Rivers	38			10	48
*Ellice (R.M.)	- St. Lazare, Fort Ellice	13				13
Glenwood (R.M.)	- Souris, Victoria Park	10	50			60
Harrison (R.M.)	- Sandy Lake, Birchville Campground	9	10			
	- Sandy Lake, Eagle Point Resort	20	30			
	- Sandy Lake, Ed-Venture Bay Camp	20	20			109
Langford (R.M.)	- Neepawa, Lake Irwin Park	100	50			
	- Neepawa, Lions Riverbend Park	20	18			188
*Lansdowne (R.M.)	- Arden, Lansdowne Cent. Park	12	6			18
Morton (R.M.)	- Boissevain Centennial Park	23	12			
	- Boissevain, Meadowlark Camp	26	20	38		
	P - Turtle Mountain - Adam Lake	65	25		25	
	- Max Lake	35			25	326
North Norfolk (R.M.)	- Bagot Campground	10	10			
	- MacGregor Centennial Park	8				
	- Sidney, Hoppy's Campground	60	40			128
Oakland (R.M.)	- Wawanesa Lions Park	14	7			21
*Park (L.G.D.)	- Onanole, Sportsman's Park	25	13	50		
	P - Riding Mountain - Clear Lake	263				
	- Deep Lake	4				

*Half Supply Counted. P - Campgrounds within the Provincial and Federal Parks Systems.

TABLE 37 - Continued

Natural Region R.M. or L.G.D.	Location	Number of Campsites				
		Un-Serviced	Electrical	Fully Serviced	Over-Flow	RM or LGD Total
Brandon (Cont'd)	P - Riding Mountain (Cont'd)					
	- Lake Audy	25				
	- Lake Kathrine	59				
	- Moon Lake	14				
	- Wasagaming	190	36	43		
	- Whirlpool Lodge	7				
*Roblin (R.M.)	- Cartwright, Rock Lake Resort	8	6	6		729
Rosedale (R.M.)	- Kelwood Centennial Park	40	14			20
*Rossburn (R.M.)	- Rossburn, Rossman Lake Resort	10	15			54
*Russell (R.M.)	- Binscarth Centennial Park		1	3		25
	- Russell Park		8			
Saskatchewan (R.M.)	- Rapid City Centennial Park	15	6			12
*Shoal Lake (R.M.)	- Shoal Lake Lakeside Park	5	4			21
Sifton (R.M.)	- Deleau, Sifton Centennial Park	10	4			9
South Cypress (R.M.)	P - Spruce Woods	76	45		80	14
Strathcona (R.M.)	- Ninette, Pelican Lake Motel		6	6		201
Turtle Mountain (R.M.)	- Killarney Fairgrounds	40	20	30		12
	- Killarney, Oak Point Park	78	34			
Wallace (R.M.)	- Kirkella, G & D Services	20	12			202
	- Virden Lions Park	25	28	11		
*Westbourne (R.M.)	- Gladstone, Williams Park	6	2			96
	P - Lynch Point	50				
	- Westbourne, Sportsman's Corner	10				
Whitehead (R.M.)	P - Grand Valley	42	7			68
						49

*Half Supply Counted. P - Campgrounds within the Provincial and Federal Parks Systems.

TABLE 67 - Continued

Natural Region R.M. or L.G.D.	Location	Number of Campsites				
		Un-Serviced	Electrical	Fully Serviced	Over-Flow	RM or LGD Total
Brandon (Cont'd)						
Whitewater (R.M.)	- Elgin, Whitewater Cent. Park	25				25
Winchester (R.M.)	- Deloraine Beach	10	10			
	- Deloraine, Elks Campground	40	10	10		
	- Deloraine, Holiday Vacation Farm	40	40			160
Region Total:		1,688	634	197	140	2,659
Dauphin						
Alonsa (L.G.D.)	P - Amaranth Beach	10				10
*Clanwilliam (R.M.)	- Erickson, Gertrude Lake	7				7
Dauphin (R.M.)	- Dauphin, Stony Point Beach		12			
	- Dauphin, Vermillion Park	114	28	8		162
Dauphin Unorganized	- Camperville, Rockin Ranch	8		8		
	P - Duck Mountain - Blue Lake	138				
	- Childs Lake	122			14	
	- Singush Lake	10			10	
	- Wellman Lake	29	21			
	P - Lake Winnipegosis	8				
	- Meadow Portage Hills Camp	4	4			
	P - Porcupine Provincial Forest					
	- Steeprock Lake	20				
	- Whitefish Lake	50				
	P - Red Deer River No. 2	12				
	- Skownan, Twin Rivers Camp	10	16			
	- Skownan, Waterhen Lake Resort	8	4			497
*Ellice (R.M.)	- St. Lazare, Fort Ellice	12				12

*Half Supply Counted. P - Campgrounds within the Provincial and Federal Parks systems.

TABLE 37 - Continued

Natural Region R.M. or L.G.D.	Location	Number of Campsites				
		Un-Serviced	Electrical	Fully Serviced	Over-Flow	RM or LGD Total
Dauphin (Cont'd)						
Gilbert Plains (R.M.)	- Gilbert Plains Centennial Park	20	16			36
Grandview (R.M.)	- Grandview Centennial Park	15		9		24
*Lansdowne (R.M.)	- Arden, Lansdowne Cent. Park	12	6			18
Lawrence (R.M.)	P - Manipogo	95	24			169
	P - Methley Beach	50				
Mossey River (R.M.)	- Winnipegosis Beach	10	14			24
Mountain (L.G.D.)	P - Birch River (Primrose)	10				10
Ochre River (R.M.)	P - Rainbow Beach	7	30			37
*Park (L.G.D.)	- Onanole, Sportsman's Park	25	13	50		728
	P - Riding Mountain - Clear Lake	263				
	- Deep Lake	4				
	- Lake Audy	25				
	- Lake Kathrine	59				
	- Moon Lake	14				
	- Wasagaming	190	36	43		
	- Whirlpool Lake	7				
*Rossburn (R.M.)	- Rossburn, Rossman Lake Resort	10	15			25
*Russell (R.M.)	- Binscarth Centennial Park		1	2		
	- Russell Park		8			
Shellmouth (R.M.)	P - Asessippi	86			25	149
	- Inglis Beach	30	8			
*Shoal Lake	- Shoal Lake, Lakeside Park	5	4			9
Swan River (R.M.)	- Swan River, Green Acres	80	24	10		
	- Swan River, Star Lite Park	10	5	11		140

*Half Supply Counted. P - Campgrounds within the Provincial and Federal Park Systems.

TABLE 37 - Continued

Natural Region R.M. or L.G.D.	Location	Number of Campsites				
		Un-Serviced	Electrical	Fully Serviced	Over-Flow	RM or LGD Total
Dauphin (Cont'd)						
*Westbourne (R.M.)	- Gladstone, Williams Park	6	2			
	P - Lynch Point	50				
	- Westbourne, Sportsman's Corner	10				
Region Total:		1,675	291	141	49	68 / 2,156
Interlake						
*Bifrost (R.M.)	- Arborg, Kinsmen Park	6				
	P - Hnausa Beach	10				
*Coldwell (R.M.)	P - Lundar Beach	19				16
Grahamdale (L.G.D.)	P - Fairford River	10			8	28
	- Fairford, Roviera	12	8			
	- Gypsumville, Anna Bay Camp	35	4			
	- Gypsumville, Big Rock	30				
	P - Lake St. Martin	5				
	P - Steeprock	25				
	P - Watchorn Bay	48				
Interlake Unorganized	P - Beaver Creek	12			10	187
	P - Devils Lake	10				
	P - Hecla Island	213			300	
	P - Lake St. Andrew	10				
	P - Lake St. George	60				
	P - Mantago	19				
Region Total:		621	12		318	638 / 951
The Pas						
Consol (L.G.D.)	- Cranberry Portage, Viking Lodge	10				
	- Crane River Reserve Beach	30	12			52

*Half Supply Counted. P - Campgrounds within the Provincial and Federal Parks Systems.

TABLE 37 - Continued

Natural Region R.M. or L.G.D.	Location	Number of Campsites				
		Un-Serviced	Electrical	Fully Serviced	Over-Flow	RM or LGD Total
The Pas (Cont'd)						
Snow Lake (L.G.D.)	P - Wekusko Falls	109				109
The Pas Unorganized	P - Bakers Narrows	61	15			
	P - Clearwater - Campers Cove	49				
	- Hugo Bay	150				
	- Cormorant Campground	20				
	P - Cormorant Lake	20				
	P - Cranberry Portage	22			20	
	- Flin Flon Centennial Park	10	16			
	P - Grass River - Iskwasum	40				
	- Reed Lake	46				
	- Gyles Park	20			15	
	P - Overflowing River	22				
	P - Rocky Lake	35				
	P - Whitefish Lake	50				
Region Total:		694	43		35	611
Northern						772
Leaf Rapids (L.G.D.)	- Churchill River Campground	40				
Lynn Lake (L.G.D.)	P - Burge Lake	30				
	P - Zed Lake	25				55
Mystery Lake (L.G.D.)	P - Paint Lake	133			40	
	P - Sasagui Rapids	18				
	- Thompson, River Road Campground	24				
Northern Unorganized	P - Buffalo Lake	6				215
	P - Eden Lake	6				
	P - Granville Lake	75				
	P - Grand Rapids	15				
	P - Hargrave River	15				

*Half Supply Counted. P - Campgrounds within the Provincial and Federal Parks Systems.

TABLE 37 - Continued

Natural Region R.M. or L.G.D.	Location	Number of Campsites				
		Un-Serviced	Electrical	Fully Serviced	Over-Flow	RM or LGD Total
Northern (Cont'd)						
	P - Hughes River	10				
	P - Oscar Point	8				
	P - Setting Lake	16				
	P - Suwannee River	10				
	P - Troy Lake	25				
Region Total:		408			40	448
Provincial Total:		9,884	2,788	1,241	2,205	16,118

*Half Supply Counted. P - Campgrounds within the Provincial and Federal Parks Systems.

Source: Manitoba. Department of Economic Development and Tourism. 1971. "Facilities Inventory". (Computer printout). Winnipeg: Manitoba Bureau of Statistics.

: Manitoba. Department of Mines, Natural Resources and the Environment. Parks Branch. 1979. Manitoba Parks Statistics 1978. Winnipeg: Queen's Printer.

: Manitoba. Department of Tourism, Recreation and Cultural Affairs. Tourist Branch. 1979. 1979-1980 Manitoba Vacation Guide. Winnipeg: Queen's Printer.

: Updated as described in the text.

TABLE 38

INVENTORY

REGIONAL SUMMARY OF PROVINCIAL PARKLAND CAMPING FACILITIES

Location	Shelters (R) Rain (K)Kitchen	Number of Showers	Number of Toilets		Number of Fire-places	Number of Picnic Tables	Number of Camping Sites				
			Modern	Non-modern			Unser-viced	Elec-trical	Fully Serviced	Over flow	Total
Northeastern Region	2 K	8	16	52	373	373	373			40	413
Northwestern Region	12 K, 1R	3	16	79	634	697	624	15		35	674
Eastern Region	6 K	40	103	106	1,133	1,518	1,179	214	45	1,306	2,744
Interlake Region	9 K		35	58	374	529	511			326	837
Western Region	77 K, 2R		50	67	1,971	2,062	1,781	147	86	50	2,064
Southeastern Region	28 K, 4R	72	295	142	2,301	3,125	2,045	541	223	340	3,149
Southwestern Region	6 K, 1R	12	24	46	421	508	333	77		140	550
Provincial Total	140 K, 8R	135	539	550	7,207	8,812	6,846	994	354	2,238	10,431

Source: Manitoba. Department of Mines, Natural Resources and the Environment. Parks Branch. 1979. Manitoba Parks Statistics 1978. Winnipeg: Queen's Printer.

: Manitoba. Department of Tourism, Recreation and Cultural Affairs. Tourist Branch. 1979. 1979-1980 Manitoba Vacation Guide. Winnipeg: Queen's Printer.

: Updated as described in Text.

campsites are termed 'public' (Table 39). The public portion is 64.7% of the total number of campsites within the province.

The Winnipeg region contains 50.9% of the supply of campsites. The Winkler, Brandon and Dauphin regions combined have 35.6% of the supply. The Pas, Northern and Interlake regions have the remaining 13.5%. The number of public campsites outnumber the private campsites in each of the regions except for the Winkler and Brandon regions.

(2) Picnicking.—As with campsites there are four administrations involved in supplying picnic tables. They are the provincial/federal governments, rural municipalities, civic agencies and private concerns.

The Provincial Parks Branch of the Department of Natural Resources contributes just over 70% of all picnic tables located in the province not counting those tables owned by the city of Winnipeg. The city of Winnipeg does not have an accurate up-to-date inventory on picnic tables. If one was to discount those picnic tables assigned to campsites (Table 38) then the percentage of picnic tables supplied by the Parks Branch for the purpose of picnicking drops to just over 40% of the total.

The picnic tables which are in excess of campsite counts and the picnic tables associated with provincial wayside parks were considered to be part of the picnic table inventory supplied by the Provincial Parks system (Table 40). Table 41 lists the number of tables established for picnicking purposes by the Parks Branch regions.

The number of municipal and civic (considered to be public in this case) picnic tables and the number of privately owned (but used by the public) picnic tables are also listed by rural municipality or local government district in Table 40.

TABLE 39

INVENTORY

CAMPSITES BY NATURAL REGIONS

Natural Regions	Number of Campsites		
	Private	Public	Total
Winnipeg	2,640	5,661	8,201
Winkler	704	227	931
Brandon	1,445	1,214	2,659
Dauphin	673	1,483	2,156
Interlake	163	788	951
The Pas	98	674	772
Northern	64	384	448
Provincial Totals	5,787	10,431	16,118

Source: Table 37 .

TABLE 40

PICNIC TABLES BY NATURAL REGIONS

Natural Region / R.M. or L.G.D.	Location	Number of Picnic Tables		
		Public	Private	R.M.Total
Winnipeg				
Alexander (L.G.D.)	- Gull Lake		20	
	P - Poplar Bay	30		
	P - Winnipeg River Marine No.3	2		52
*Bifrost (R.M.)	- Hnausa Beach	1		
	P - Hnausa Beach	6		7
Brokenhead (R.M.)	- Beausejour River Park	175		175
Cartier (R.M.)	- Whitehorse Plains Campground		150	150
*De Salaberry (R.M.)	P - St. Malo	66		66
*Dufferin (R.M.)	- Carman Recreation Complex	8		8
East St. Paul(R.M.)	P - Hyland Wayside	5		5
Gimli (R.M.)	- Almond's Acres Trailer Park		40	
	- Camp Arnes	8		
	- Camp Rusalka	12		
	- Husalvick Summer Camp	50		
	- Kamp Neustadt	120		
	P - Stefanson Memorial	2		
	- Sunshine Lutherine Camp	4		
	- Ukranian Orthodox Camp	10		
	- Wildwood Tourist Park		5	251
La Broquerie (R.M.)	P - Devon Wayside	2		2
Lac du Bonnet (R.M.)	- Holiday Beach		8	
	P - Lee River	15		
	- Lee River Camp Hide-Away		12	
	- Lee River Riverdale Park		8	
	P - Winnipeg River Marine No.1	1		
	P - Winnipeg River Marine No.2	1		45
*Morris (R.M.)	- Big "M" Centennial Park	7		7
Pinawa (L.G.D.)	- Pinawa Beach	8		
	- Pinawa Marine Services	2		
	P - Pinawa Wayside	11		21
Piney (L.G.D.)	P - Menisino Tower Wayside	6		
	P - Whitemouth Lake Wayside	2		
	P - Woodridge Wayside	4		12

*Half Supply Counted.

TABLE 40 - Continued

Natural Region / R.M. or L.G.D.	Location	Number of Picnic Tables		
		Public	Private	R.M.Total
Winnipeg (Cont'd)				
Portage la Prairie (R.M.)	P - Norquay	12		
	P - Portage East Wayside	2		
	- Portage la Prairie Island Park	50		
	- Portage la Prairie Sunset Motel		1	
	P - St. Ambroise	40		
	P - Yellow Quill Wayside	10		115
Reynolds (L.G.D.)	P - Agassiz Wayside	2		
	P - Dawson Trail Wayside	2		
	P - Marchand Wayside	13		
	P - Pinegrove Halt Wayside	15		
	P - Pineland Nursery Wayside	2		
	- Prawda, George's Campground		5	
	P - Sawdust Pile Wayside	10		
	P - Whitemouth River Wayside	17		66
Ritchot (R.M.)	- Green Valley Golf & Rec. Park		25	
	- St. Adolphe Wayside	5		
	- Ste. Agathe Wayside	5		35
Rockwood (R.M.)	P - Norris Lake Wayside	7		
	- Teulon Golf Club	2		9
Rosser (R.M.)	- Summerland Farms		185	185
St. Andrews (R.M.)	- Little Britain Community Hall	8		
	P - Netley Creek Wayside	8		
	- Petersfield Chesley's Resort		150	
	- Petersfield Sportsman's Lodge		20	
	- Selkirk Park	150		336
Ste. Anne (R.M.)	- Ste. Anne Tourist Park		25	25
St. Clements (R.M.)	P - Grand Beach	25		
	P - Patricia Beach	5		30
St. Francois Xavier (R.M.)	- Sunny Harbour Resorts		20	20
St. Laurent (R.M.)	- Futros Villa		2	

*Half Supply Counted.

TABLE 40 - Continued

Natural Region / R.M. or L.G.D.	Location	Number of Picnic Tables		
		Public	Private	R.M.Total
Winnipeg (Cont'd)				
	- Sunshine Resort Ltd.		20	
	- Wagonwheel Ranch		4	26
Springfield (R.M.)	P - Birds Hill	100		
	- Ponderosa Resort		60	
	- Oasis Beach		300	460
Tache (R.M.)	- Lorette Sport Centre	6		6
Whitemouth (R.M.)	- Seven Sisters Picnic Area		25	
	P - Whitemouth Falls Wayside	24		49
Winnipeg City	- Total for the City	733	37	770
Winnipeg Unorganized	P - Birch Falls Wayside	10		
	P - Black River Wayside	8		
	P - Curries Landing Wayside	10		
	P - Manigotagan Wayside	15		
	P - Moose Lake	10		
	P - Nopiming - Beresford Lake	10		
	- Bird Lake	30		
	- Long Lake	10		
	- Manigotagan River	10		
	P - Silver Falls Wayside	10		
	P - Wallace Lake	40		
	P - Wanipigow Lake	10		
	P - Whiteshell - Bear Lake	2		
	- Betula Lake	30		
	- Big Whiteshell	8		
	- Border Reception	40		
	- Brereton Lake	10		
	- Caddy Lake	8		
	- Dorothy Lake	29		
	- Dorothy Wayside	2		
	- Eight Foot Falls	28		
	- Falcon Lake	40		
	- Flag of Freedom Wayside	2		
	- Frances Lake	2		

*Half Supply Counted.

TABLE 40 - Continued

Natural Region / R.M. or L.G.D.	Location	Number of Picnic Tables		
		Public	Private	R.M.Total
Winnipeg (Cont'd)				
	- Green Lake	1		
	- Inverness Falls	2		
	- Lily Pond	1		
	- Lone Island	2		
	- Lyons Lake	5		
	- McGillivray Falls	2		
	- No. 44 Highway Wayside	11		
	- Nutimik	58		
	- Opapiskow	28		
	- Otter Falls Day Use	63		
	- Otter Falls Picnic Area	5		
	- Pine Point Hiking Trail	2		
	- Rainbow Falls	2		
	- Reid Falls	2		
	- Rennie Wayside	2		
	- Rennie River	5		
	- Sawmill Bay	12		
	- Star Beach	4		
	- Telford	2		
	- Toniata Beach	5		
	- Tulibi Falls	34		
	- West Hawk Lake	25		
	- Winnipeg River Wayside	12		
	- Whiteshell - Inverness Falls		4	
	- Whiteshell - Red Rock Bible Camp	5		
	- Whiteshell - West Hawk Motel		11	680
Woodlands (R.M.)	- Miami Beach		120	120
Region Total:		2476	1257	3733
Winkler				
*Argyle (R.M.)	- Argyle Kiwanis Beach	5		

*Half Supply Counted.

TABLE 40 - Continued

Natural Region / R.M. or L.G.D.	Location	Number of Picnic Tables		
		Public	Private	R.M.Total
Winkler (Cont'd)				
	- Baldur Centennial Park	4		
	P - Rock Lake	10		19
*De Salaberry (R.M.)	P - St. Malo	66	66	
*Dufferin (R.M.)	- Carman Recreation Park	8		8
Lorne (R.M.)	- Altamont Park	3		3
Montcalm (R.M.)	P - Emerson Museum	5		
	- Emerson Park	10		
	P - Letellier Wayside	5		20
*Morris (R.M.)	- Big "M" Centennial Park	6		6
Pembina (R.M.)	P - La Verendrye Wayside	6		
	- Manitou Centennial Park	12		18
Rhineland (R.M.)	- Altona Centennial Park	11		11
*Roblin (R.M.)	- Cartwright Centennial Park	6		
	- Cartwright Kinsmen Park	10		16
South Norfolk (R.M.)	- Notre Dame Ballfield	8		
	- Treherne - Bambi Gardens		30	
	- Treherne - Cottonwood Camp	3		
	P - Treherne Wayside	10		51
Stanley (R.M.)	- Morden - Colbert Beach	25		
	- Morden Minnewasta Golf Club	4		
	- Winkler Tourist Park	8		37
Victoria (R.M.)	- Holland Fair Grounds	12		12
Region Total:		253	30	283
Brandon				
*Argyle (R.M.)	- Argyle Kiwanis Beach	5		
	- Baldur Centennial Park	4		
	P - Rock Lake	10		19
Arthur (R.M.)	- Melita Memorial Park	5		
	- Melita River Park	7		
	- Melita Motel		4	16
*Birtle (R.M.)	- Birtle Riverside Park	13		
	P - Britle Wayside	3		16

*Half Supply Counted.

TABLE 40 - Continued

Natural Region / R.M. or L.G.D.	Location	Number of Picnic Tables		
		Public	Private	R.M.Total
Brandon (Cont'd)				
Blanshard (R.M.)	- Oak River	1		1
Cameron (R.M.)	- Hartney Centennial Park	4		4
Cornwallis (R.M.)	- Brandon Curran Park	100		
	- Brandon Fairway Golf Range		1	
	- Brandon Highland Park Lodge		1	
	- Brandon Meadowlark Camp		40	
	- Brandon Rideau Park	3		
	- Brandon Stanley Park	3		148
Daly (R.M.)	- Rivers Kiwanis Picnic Area	2		
	P - Rivers Wayside	3		5
*Ellice (R.M.)	- St. Lazare Playground	2		2
Glenwood (R.M.)	- Souris Comet Motel		1	
	- Souris Victoria Park	60		61
Hamiota (R.M.)	- Hamiota Municipal Park	4		4
Harrison (R.M.)	- Sandy Lake Ballfield	4		4
*Lakeview (R.M.)	- Hollywood Beach	5		5
Langford (R.M.)	- Neepawa Lake Irwin Park	23		
	- Neepawa Lions Riverbend Park	50		
	- Neepawa Park Lake	13		86
*Lansdowne (R.M.)	- Arden Centennial Park	8		
	P - Keyes Wayside	5		13
Miniota (R.M.)	- Miniota Golf Club		3	
	P - Sioux Benn Wayside	8		11
Minto (R.M.)	P - Grant Memorial Wayside	6		
	- Minnedosa Beach & Campground	20		26
Morton (R.M.)	P - Fairburn Wayside	3		
	P - Turtle Mountain			
	- Adam Lake	28		
	- Max Lake	54		
	P - William Lake	24		109

*Half Supply Counted.

TABLE 40 - Continued

Natural Region / R.M. or L.G.D.	Location	Number of Picnic Tables		
		Public	Private	R.M.Total
Brandon (Cont'd)				
North Cypress (RM)	P - Camp Hughes	10		
	P - Seton Wayside	10		20
Oakland (R.M.)	P - Log Cabin Wayside	6		
	- Wawanesa Lions Park	22		28
*Park (L.G.D.)	P - Riding Mountain			
	- Aspen Picnic Area	5		
	- Clear Spring	4		
	- Dead Ox Creek	3		
	- Deep Lake	1		
	- Frith Beach	4		
	- Glen Baeg	5		
	- Grayling Lake	4		
	- Lake Audy	8		
	- Lake Audy Dam	1		
	- Lake Kathrine	7		
	- Moon Lake	7		
	- Spruce Picnic Area	4		
	- The Birches Picnic Area	3		
	- Whirlpool Lake	7		63
Pipestone (R.M.)	P - Pipestone Wayside	6		6
Riverside (R.M.)	- Dunrea Centennial Park	1		1
*Roblin (R.M.)	- Cartwright Centennial Park	6		
	- Cartwright Kinsmen Park	10		16
Rosedale (R.M.)	- Kelwood Centennial Park	7		
	- Rosedale Centennial Park	3		10
*Russell (R.M.)	- Binscarth Centennial Park	6		
	P - Binscarth Wayside	4		
	- Russell Campground	4		14
Saskatchewan (R.M.)	- Rapid City Centennial Park	8		
	- Rapid City Playground	1		9
*Shoal Lake (R.M.)	- Shoal Lake Lakeview Park	3		
	- Shoal Lake Chambers Park	12		15
Sifton (R.M.)	- Deleau-Sifton Centennial Park	7		
	- Oak Lake Golf Course		1	
	- Oak Lake Natures Paradise	7		
	- Oak Lake Sportshaven Motel	5		24

*Half Supply Counted.

TABLE 40 - Continued

Natural Region / R.M. or L.G.D.	Location	Number of Picnic Tables		
		Public	Private	R.M.Total
Brandon (Cont'd)				
*Silver Creek (R.M.)	- Silver Creek Beach Summer Resort	8		8
South Cypress (RM)	- Glenboro Chickadeedee Lodge		4	
	- Glenboro Fairground	3		
	P - Spruce Woods - Marsh Lake	10		17
Strathcona (R.M.)	- Belmont Centennial Park	10		
	- Ninette Pelican Lake Motel		5	
	P - Pelican Lake	19		34
Turtle Mountain (R.M.)	- Killarney Erin Park	62		
	- Killarney Fairgrounds	10		
	P - Killarney Wayside	36		108
Wallace (R.M.)	P - Hargrave Wayside	15		
	P - Kirkella Wayside	10		
	- Virden Eternal Spring Camp	8		
	- Virden Golf Club	5		
	- Virden Kitty Korner Camp		3	
	- Virden Lions Tourist Park	32		
	- Virden Victoria Park	10		83
*Westbourne (R.M.)	- Gladstone Williams Park	87		
	P - Lynch Point	25		
	- Plumas, Lions Picnic Area	3		
	- Westbourne Perry Park	5		41
Whitewater (R.M.)	- Whitewater Centennial Park	1		1
Winchester (R.M.)	- Deloraine Park	3		
	- Deloraine Elks Campground	5		
	- Holiday Hills Vacation Farm		4	12
Woodworth (R.M.)	- Kenton Park Dam	5		5
Region Total:		978	67	1045
Dauphin				
Alonsa (L.G.D.)	P - Amaranth Beach	4		
	- Eddystone	5		
	P - Margaret Bruce	14		23
*Birtle (R.M.)	- Birtle Riverside Park	13		
	P - Birtle Wayside	3		16

*Half Supply Counted.

TABLE 40 - Continued

Natural Region / R.M. or L.G.D.	Location	Number of Picnic Tables		
		Public	Private	R.M.Total
Dauphin (Cont'd)				
Dauphin (R.M.)	- Dauphin Picnic Grounds	8		
	- Sifton Beach	7		15
*Ellice (R.M)	- St. Lazare Playground	1		1
Gilbert Plains (R.M.)	P - Brokenpipe Wayside	5		
	- Gilbert Plains Centennial Park	17		22
Grandview (R.M.)	P - Rosebud Wayside	7		7
*Lakeview (R.M.)	- Hollywood Beach	5		5
Lawrence (R.M.)	P - Manipogo	16		
	P - Methley Beach	10		
	- Rorketon Centennial Park	15		41
Minitonas (R.M.)	- Minitonas Park	2		2
Mossey River (R.M.)	- Winnipegosis Beach	12		12
Mountain (L.G.D.)	P - Cowan Wayside	6		
	P - Pine River Wayside	2		
	P - Primrose Wayside	16		
	P - Springwater Wayside	3		
	P - Steeprock	3		30
Ochre River (R.M.)	P - Rainbow Beach	31		31
*Park (L.G.D.)	P - Riding Mountain			
	- Aspen Picnic Area	5		
	- Clear Spring	4		
	- Dead Ox Creek	2		
	- Deep Lake	1		
	- Frith Beach	4		
	- Glen Baeg	5		
	- Grayling Lake	4		
	- Lake Audy	8		
	- Lake Audy Dam	2		
	- Lake Kathrine	7		
	- Moon Lake	7		
	- Spruce Picnic Area	4		
	- The Birches Picnic Area	2		
	- Whirlpool Lake	8		63
*Russell (R.M.)	- Binscarth Centennial Park	6		
	P - Binscarth Wayside	3		
	- Russell Campground	4		13

*Half Supply Counted.

TABLE 40 - Continued

Natural Region / R.M. or L.G.D.	Location	Number of Picnic Tables		
		Public	Private	R.M.Total
Dauphin (Cont'd)				
Ste. Rose (R.M.)	P - Kergwenan Wayside	7		
	- Ste. Rose du Lac Dollard Park	10		17
Shellmouth (R.M.)	P - Asessippi	10		
	P - Dropmore East Wayside	2		
	P - Dropmore West Wayside	3		15
Shell River (R.M.)	P - Pyott's Point	7		
	P - Roblin East Wayside	6		
	P - Roblin West Wayside	4		17
*Shoal Lake (R.M.)	- Shoal Lake Lakeview Park	3		
	- Shoal Lake Chambers Park	12		15
*Silver Creek (R.M.)	- Silver Creek Bead Summer Resort	7		7
Swan River (R.M.)	P - Swan River Wayside	3		3
*Westbourne (R.M.)	- Gladstone, Williams Park	7		
	P - Lynch Point	25		
	- Plumas, Lions Picnic Area	3		
	- Westbourne Pony Park	5		40
Dauphin Unorganized	P - Bell Lake Wayside	4		
	P - Duck Mountain	33		
	P - Harmon Lake Wayside	4		
	P - Lake Winnipegosis Wayside	8		
	P - Mafeking Wayside	2		
	P - Red Deer River Wayside No. 1	2		
	P - Red Deer River Wayside No. 2	12		
	P - Steeprock Lake Wayside	30		
	P - Whitefish Lake Wayside	14		109
Region Total:		397	0	397
Interlake				
*Bifrost (R.M.)	- Hnausa Beach	1		
	P - Hnausa Beach	6		7
Grahamdale (R.M.)	P - Fairford River Wayside	6		
	P - Lake St. Martin	2		
	P - Steeprock	26		
	P - Watchorn Bay	39		73

*Half Supply Counted.

TABLE 40 - Continued

Natural Region / R.M. or L.G.D.	Location	Number of Picnic Tables		
		Public	Private	R.M.Total
Interlake (Cont'd)				
Grand Rapids (R.M.)	- Grand Rapids(L.G.D.)	10		10
Interlake Unorganized	P - Beaver Creek	25		
	P - Devils Lake Wayside	6		
	P - Hecla Island	30		
	P - Lake St. Andrew Wayside	7		
	P - Mantagao Wayside	5		
	P - Oscar Point Wayside	8		81
Siglunes (R.M.)	- Lake Manitoba Narrows Lodge	5		5
Region Total:		176	0	176
The Pas				
Snow Lake (L.G.D.)	P - Wekusko Falls Wayside	10		
	P - Wekusko Lake	3		13
The Pas Unorganized	P - Bakers Narrows	35		
	P - Cranberry Portage	6		
	P - Goose Lake Wayside	2		
	P - Grass River	15		
	P - Jennie Lake Wayside	2		
	P - Kisseynew Lake Narrows	2		
	P - Kississing River Wayside	2		
	P - Mistik Creek Wayside	4		
	P - Naosap Lake Wayside	3		
	P - Neso Lake Wayside	4		
	P - Overflowing River Wayside	8		
	P - Sally Beach Wayside	3		
	P - Scenic Site Wayside	2		
	P - Twin Lakes Wayside	8		
	P - Whitefish Lake Wayside	4		102
Region Total:		115		115
Northern				
Lynn Lake (L.G.D.)	P - Burge Lake	30		
	P - Zed Lake	30		60
Mystery Lake (LGD)	P - Ospwagaon Lake Wayside	5		
	P - Pisew Falls Wayside	8		
Northern Unorganized	P - Buffalo Lake Wayisde	6		
	P - Eden Lake Wayside	6		

*Half Supply Counted.

TABLE 40 - Continued

Natural Region / R.M. or L.G.D.	Location	Number of Picnic Tables		
		Public	Private	R.M.Total
Northern (Cont'd)				
	P - Hargrave River Wayside	15		
	P - Hughes Lake Wayside	2		
	P - Hughes River Wayside	10		
	P - Midlake Fishing Access Wayside	10		
	P - Minago River Wayside	5		
	P - Setting Lake Wayside	16		
	P - Suwanne River Wayside	10		
	P - Troy Lake Wayside	6		86
Region Total:		177		177
Provincial Total:		4,572	1,354	5,926

*Half Supply Counted.

Sources: Manitoba. Department of Economic Development and Tourism. 1971. "Facilities Inventory". (Computer printout). Winnipeg: Manitoba Bureau of Statistics.

: Manitoba. Department of Tourism, Recreation and Cultural Affairs. Tourist Branch. 1979. 1979-1980 Manitoba Vacation Guide. Winnipeg: Queen's Printer.

: Manitoba. Department of Mines, Natural Resources and the Environment. Parks Branch. 1979. Manitoba Parks Statistics 1978. Winnipeg: Queen's Printer.

: Updated as described in text.

TABLE 41

INVENTORY

SUMMARY OF PICNIC TABLES AND SHELTERS-PARKS SYSTEM

Parks Branch Regions	Number of Tables	Number of Kitchen Shelters
Northeastern	195	2
Northwestern	115	2
Eastern	433	7
Interlake	173	7
Western	390	13
Southeastern	793	16
Southwestern	299	10
Provincial Total	2,398	57

Source: Table 40.

A summary table containing the public picnic tables (located in the federal, provincial, municipal and civic parks) and the private picnic tables (located in privately owned commercial picnic areas) are listed by natural regions in Table 42. The public portion represents 77% of the total number of picnic tables. The Winnipeg region has almost 63% of the total. The Brandon region is second to the Winnipeg region in terms of absolute number of picnic tables. It has 17.6% of the total provincial supply. The Northern, Interlake and The Pas regions combined have only 7.9% of the total picnic table inventory.

(3) Visiting Historic Sites.—This section examines the supply of both museums and historical sites. In both cases, the inventory is also available for the urban (city of Winnipeg) portion of the study.

The urban and rural inventories of museums were combined and listed by natural regions (Table 43). Almost 21% of the museums in the province are located within the city of Winnipeg and almost 42% are located within the Winnipeg region (Table 44). The Brandon region is the next highest with just over one-quarter of the provincial supply. The three northern regions of The Pas, Interlake and Northern have a total of 6.2% of the museums.

With regard to historical sites, the city of Winnipeg has 35.2% of the supply (Table 45). The Winnipeg region has 58.8% of the historical sites in the province with the Winkler region falling in second place with 12.1% (Table 46).

(4) Driving for Pleasure.—Motorists are able to drive almost anywhere there are roads. The driving tours suggested by the Manitoba Vacation Guide are designed to give a person an overall view of the wide variety of attractions and facilities in the province. These tours

TABLE 42

INVENTORY

PICNIC TABLES BY NATURAL REGIONS

Natural Regions	Number of Picnic Tables		
	Public*	Private**	Total
Winnipeg	2,476	1,257	3,733
Winkler	253	30	283
Brandon	978	67	1,045
Dauphin	397	0	397
Interlake	176	0	176
The Pas	115	0	115
Northern	177	0	177
Provincial Totals	4,572	1,354	5,926

*National, Provincial and Municipal Parks.

**Private commercial picnic areas.

Source: Table 40.

TABLE 45

MUSEUMS BY NATURAL REGIONS

Natural Region R.M. or L.G.D.	Location	Name	R.M.or L.G.D. Total
Winnipeg			
Alexander (L.G.D.)	St. George	Le Musee St. Georges	1
Brokenhead (R.M.)	Beausejour	Broken-Beau Historical Society Museum	1
*De Salaberry (R.M.)	St. Malo	Busee "Le Pioneer"	0.5
*Dufferin (R.M.)	Carman	Dufferin Historical Museum	
		Heaman's Antique Autorama	1
*Ericksdale (R.M.)	Ericksdale	Ericksdale Museum	0.5
Gimli (R.M.)	Gimli	Gimli Historical Museum	1
*Grey (R.M.)	St. Claude	St. Claude Museum	0.5
Hanover (R.M.)	Steinbach	Mennonite Village Museum	1
La Broquerie (R.M.)	La Broquerie	Musee St. Joachim	1
Portage la Prairie (R.M.)	Portage la Prairie	Fort la Reine Museum	1
Reynolds (L.G.D.)	Hadashville	Conservation Training Area Museum	1
Rockwood (R.M.)	Teulon	Teulon and District Museum	1
St. Andrews (R.M.)	St. Andrews	Red River House Museum	
	Selkirk	Lower Fort Garry National Historic Park	
		Marine Museum of Manitoba	3
Ste. Anne (R.M.)	Ste. Anne	Musee Pointe Des Chenes	1
Springfield (R.M.)	Anola	Anola and District Museum	
	Cook's Creek	Cook's Creek Heritage Museum	2
*Stuartburn (L.G.D.)	Gardenton	Ukrainian Museum	1
Tache (R.M.)	Dufresne	Aunt Margaret's Museum of Childhood	1
Victoria Beach (R.M.)	Victoria Beach	Ateah Museum	1
Whitemouth (R.M.)	Whitemouth	Whitemouth Municipal Museum	1
Winnipeg City	Winnipeg	Aquatic Hall of Fame and Museum of Canada	
		Archives of the Conference of Mennonites in Canada	
		Mennonites Geneology Inc.	
		Dalnavert-Macdonald House	

*Half Supply Counted.

TABLE 43 - Continued

Natural Region R.M. or L.G.D.	Location	Name	R.M.or L.G.D. Total
Winnipeg City (cont'd)			
		Fort Garry Horse Museum and Archives	
		Grant's Old Mill	
		Historical Museum of St. James-Assiniboia and 1857 Red River Log Style House	
		Ivan Franko Museum	
		Living Prairie Museum	
		Manitoba Museum of Man and Nature	
		Mineralogy Museum	
		Le Musee de Saint Boniface	
		Ross House	
		Royal Winnipeg Rifles Museum	
		Seven Oaks House Museum	
		St. Volodymyr Museum	
		Transcona Regional History Museum	
		Ukrainian Cultural and Educational Centre	
		Ukrainian Museum of Canada, Manitoba Branch	
		Western Canada Aviation Museum	
		Winnipeg Art Gallery	
		Winnipeg Mint	
Winnipeg Unorganized	Whiteshell Provincial Park		22
		Whiteshell Natural History Museum	1
Woodlands (R.M.)	Woodlands	Woodlands Pioneer Museum	1
Region Total:			44.0
Winkler			
*De Salaberry (R.M.)	St. Malo	Musee "Le Pioneer"	
*Dufferin (R.M.)	Carman	Dufferin Historical Museum	0.5
	Carman	Heaman's Antique Autorama	
*Grey (R.M.)	St. Claude	St. Claude Museum	1
			1

*Half Supply Counted.

TABLE 43 - Continued

Natural Region R.M. or L.G.D.	Location	Name	R.M.or L.G.D. Total
Winkler (cont'd)			
Louise (R.M.)	Pilot Mound	Pilot Centennial Museum	1
Montcalm (R.M.)	Emerson	Gateway Stopping Place Museum	
	St. Joseph	Le Musee St. Joseph	2
Pembina (R.M.)	La Riviere	Archibald Historical Museum	
	Snowflake	Star Mound School Museum Park	2
Rhineland (R.M.)	Altona	J.A. Funk's Museum	
	Altona	K. H. Sawatsky Museum	2
*Roblin (R.M.)	Glenora	Claude Crayson Community Museum	0.5
South Norfolk (R.M.)	Treherne	Treherne Museum	1
Stanley (R.M.)	Morden	Morden and District Museum	
	Winkler	Pembina Thresherman's Museum	2
*Stuartburn (L.G.D.)	Gardenton	Ukranian Museum	0.5
Thompson (R.M.)	Miami	Miami Museum	
	Miami	Miami Station	2
*Victoria (R.M.)	Cypress River	Cypress River Historical Museum	1
Region Total:			15.5
Brandon			
Arthur (R.M.)	Melita	Antler River Museum	1
Brenda (R.M.)	Waskada	Waskada Museum	1
Cornwallis (R.M.)	Brandon	Brandon Allied Arts Centre	
	Brandon	B.J. Hales Museum of Natural History	
	Brandon	Brandon Museum, Inc.	
	Brandon	Chapman Museum	4
Glenwood (R.M.)	Souris	Hillcrest Museum	1
Hamiota (R.M.)	Hamiota	Hamiota Pioneer Club Museum	1
*Lakeview (R.M.)	Langruth	Langruth Heritage Museum	1
Langford (R.M.)	Neepawa	Beautiful Plains Museum	

*Half Supply Counted.

TABLE 43 - Continued

Natural Region R.M. or L.G.D.	Location	Name	R.M.or L.G.D. Total
Brandon (cont'd)			
Miniota (R.M.)	Neepawa	Murray's Museum of History	
	Beulah	Art Ulley Country Store Museum	2
	Miniota	Miniota Municipal Museum	
Morton (R.M.)	Boissevain	Beckoning Hills Museum	2
North Cypress (R.M.)	Carberry	Carberry Plains Museum	1
North Norfolk (R.M.)	Austin	Manitoba Agricultural Museum	1
Odanah (R.M.)	Minnedosa	Minnedosa and District Museum	1
Pipestone (R.M.)	Reston	Reston Historical Museum	1
*Roblin (R.M.)	Glenora	Claude Crayson Community Museum	1
*Russell (R.M.)	Binscarth	Binscarth Museum	1
Saskatchewan (R.M.)	Rapid City	Rapid City Museum and Cultural Centre	1
*Shoal Lake (R.M.)	Shoal Lake	Spruce Haven Museum	1
South Cypress (R.M.)	Shilo	Royal Canadian Artillery Museum	0.5
Strathclair (R.M.)	Strathclair	Strathclair Museum	1
Turtle Mountain (R.M.)	Killarney	J.A. V. David Municipal Museum	1
*Victoria (R.M.)	Cypress River	Cypress River Historical Museum	1
Wallace (R.M.)	Elkhorn	Manitoba Automobile Museum	0.5
	Virden	Pioneer Home Museum of Virden & District	
*Westbourne (R.M.)	Gladstone	Gladstone Museum	2
Winchester (R.M.)	Deloraine	Deloraine Museum	0.5
			1
Region Total:			27.0
Dauphin			
Alonsa (L.G.D.)	Eddystone	Village Site Museum	
Dauphin (R.M.)	Dauphin	Fort Dauphin Museum	1
	Dauphin	McCallum's Museum and Trading Post	
Grandview (R.M.)	Grandview	Crossley Museum	2
	Grandview	Watson Crossley Community Museum	
*Lakeview (R.M.)	Langruth	Langruth Heritage Museum	2
			0.5

*Half Supply Counted.

TABLE 43 - Continued

Natural Region R.M. or L.G.D.	Location	Name	R.M.or L.G.D. Total
Dauphin (cont'd)			
Minitonas (R.M.)	Bowsman	McKay's Museum	1
Mossey River (R.M.)	Winnipegosis	Winnipegosis Museum	1
*Russell (R.M.)	Binscarth	Binscarth Museum	0.5
Shell River (R.M.)	Roblin	Keystone Pioneer Museum	1
*Shoal Lake (R.M.)	Shoal Lake	Spruce Haven Museum	0.5
Swan River (R.M.)	Kenville	Westway Pioneer Homes	
	Swan River	Swan Valley Museum	2
*Westbourne (R.M.)	Gladstone	Gladstone Museum	0.5
Region Total:			12.0
Interlake			
*Ericksdale (R.M.)	Ericksdale	Ericksdale Museum	0.5
Grahamdale (R.M.)	Moosehorn	Moosehorn Museum	1
Siglunes (R.M.)	Ashern	Ashern Pioneer Museum	1
Region Total:			2.5
The Pas			
Consol (L.G.D.)	The Pas	Sam Waller Little Northern Museum	1
Region Total:			1
Northern			
Churchill (L.G.D.)	Churchill	Eskimo Museum	1
Gillam (L.G.D.)	Gillam	Gillam Community Museum	1
Leaf Rapids (L.G.D.)	Leaf Rapids	Leaf Rapids National Exhibition Centre	1
Region Total:			3.0
Provincial Total:			105.0

*Half Supply Counted.

Source: Manitoba. Department of Cultural Affairs. Historical Resources Branch. 1979. "Manitoba Historical Sites and Museums". (Unpublished data sheets). Winnipeg: Historical Resources Branch.

TABLE 44

INVENTORY

MUSEUMS BY NATURAL REGIONS
(TOTALS)

Natural Regions	Number of Museums
Winnipeg	44.0
Winkler	15.5
Brandon	27.0
Dauphin	12.0
Interlake	2.5
The Pas	1.0
Northern	3.0
Provincial Totals	105.0

Source: Table 43.

TABLE 45

HISTORICAL SITES BY NATURAL REGIONS

Natural Region R.M. or L.G.D.	Location	Name	R.M. or L.G.D. Total
Winnipeg			
Alexander (L.G.D.)	Pine Falls	Fort Maurepas	
*Bifrost (R.M.)	Riverton	Icelandic Settlement	1
Gimli (R.M.)	Arnes	Stefansson, Vilkjalmur	1
	Gimli	Icelandic Settlement in Manitoba	
Hanover (R.M.)	Steinbach	Mennonite Settlement	2
*Morris (R.M.)	Morris	The Fur Trade	1
		Morris, Lt. Gov. Alexander	
Portage la Prairie (R.M.)		Wommen's Institute of Manitoba	1.5
	Poplar Point	Ste. Anne's Church	
	Portage la Prairie	First Homestead in Western Canada	
St. Andrews (R.M.)	Selkirk	Meighen, Rt. Hon. Arthur	
		100th Anniversary of R.C.M.P.	3
	St. Andrews	Indian Treaty No. 1	
		Captain Wm. Kennedy	
	Winnipeg Beach	St. Andrews-on-the-Red	
Ste. Anne (R.M.)	Ste. Anne	1870 Northern Boundary	
St. Clements (R.M.)	East Selkirk	Dawson Road	5
St. Francois Xavier (R.M.)		St. Peters Dynevor Church	1
	Headingley		1
		Fort Ellice Trail	
		The Assiniboine River	
	St. Francois Xavier	Whiteshourse Plain Legend	
*Stuartburn (L.G.D.)	Gardenton	Grant, Cuthbert	
Winnipeg City	Winnipeg	St. Michael's Ukrainian Orthodox Church	4
		Abbey of Our Lady of The Prairies	1
		E.L. Barber House	
		Battle of Seven Oaks	
		Bryce, Rev. George	
		Creation of Manitoba	

*Half Supply Counted.

TABLE 45 - Continued

Natural Region R.M. or L.G.D.	Location	Name	R.M.or L.G.D. Total
Winnipeg City (cont'd)			
		Dafoe, J.W.	
		Dominion Land Survey System	
		Fort Douglas	
		Lord Dufferin	
		Fort Le Reine	
		Gaulthier de le Verendrye, Pierre	
		Gordon, Dr. Ralph Conner	
		Government House	
		Grey Nun's Convent	
		La Verendrye	
		First Legislature in Manitoba	
		Norquay, Hon. John	
		Northrup, Anson	
		The Nor'Wester	
		Oakes, Harold Anthony	
		Old Kildonan Presbyterian Church	
		Red River Settlement	
		Ross, Alexander	
		Fort Rouge	
		Lord Selkirk	
		Seven Oaks House	
		Silver Heights-Portage Trail Stopping Place	
		Simpson Thomas	
		St. James Church	
		St. Norbert-Metis Settlement	
		St. Pauls Anglican Church	
		Wolfe, Major General	
Winnipeg Unorganized Region Total:	Nutimik Lake	Indian Mosaics	32 1
			53.5

TABLE 45 - Continued

Natural Region R.M. or L.G.D.	Location	Name	R.M.or L.G.D. Total
Winkler			
Louise (R.M.)	Pilot Mound	Buffalo Hunters Place	
Montcalm (R.M.)	Dufferin	Fort Dufferin	1
	Letellier	Roseau Route	
*Morris (R.M.)	Morris	The Fur Trade	2
		Morris, Lt. Gov. Alexander	
Rhineland (R.M.)	Rosenfeld	Women's Institute of Manitoba	
Roland (R.M.)	Roland	Mennonite Settlement	3
Stanley (R.M.)	Morden	The 4-H Club	1
		Fort Pinancewaywining	1
		La Verendrye	
*Stuartburn (L.G.D.)	Gardenton	Morden	
		St. Michael's Ukrainian Orthodox Church	3
Region Total:			1
			11.0
Brandon			
Cornwallis (R.M.)	Brandon	Brandon College	
		Lord Selkirk	
		Sifton, Sir Clifford	
*Ellice (R.M.)	St. Lazare	Saskatchewan Trail	3
Langford (R.M.)	Neepawa	Saskatchewan Trail	0.5
North Cypress (R.M.)	Carberry	Seton, Ernest Thompson	1
Oakland (R.M.)	Wawanesa	Early Fur Trade	1
*Russell (R.M.)	Russell	Boulton, Major Charles A	1
Saskatchewan (R.M.)	Rapid City	Grove, Frederick Philip	0.5
*Westburne (R.M.)	Lynch's Point	Walter Lynch and The Lynch Party	1
Region Total:			0.5
			8.5

*Half Supply Counted.

TABLE 45 - Continued

Natural Region R.M. or L.G.D.	Location	Name	R.M.or L.G.D. Total
Dauphin			
Alonsa (L.G.D.)	Lake Manitoba Narrows	Origin of the Name "Manitoba"	1
Dauphin Unorganized	Red Deer River	Boundary Marker	1
*Ellice (R.M.)	St. Lazare	Saskatchewan Trail	0.5
Massey River (R.M.)	Winnipegosis	Fort Dauphin	1
*Russell (R.M.)	Russell	Boulton, Major Charles A.	0.5
Shellmouth (R.M.)	Asessippi Provincial Park	Asessippi Townsite	1
Swan River (R.M.)	Swan River	The Fur Trade	1
*Westbourne (R.M.)	Lynch's Point	Walter Lynch and The Lynch Party	0.5
Region Total:			6.5
Interlake			
*Bifrost (R.M.)	Riverton	Icelandic Settlement	0.5
Grand Rapids (R.M.)	Grand Rapids	1881 Boundary	1
Region Total:			1.5
The Pas			
Consol (L.G.D.)	The Pas	Budd, Rev. Henry	
The Pas Unorganized	Flin Flon	Kelsey, Henry	
		Mandy Mine	2
Region Total:			1
Northern			3.0
Churchill (L.G.D.)	Churchill	Button, Sir Thomas	
		Fort Churchill	
		Fort Prince of Wales	
		Hearne, Samuel	

*Half Supply Counted.

TABLE 45 - Continued

Natural Region R.M. or L.G.D.	Location	Name	R.M.or L.G.D. Total
Northern (cont'd)			
Churchill (cont'd)			
Northern Unorganized	Norway House	Hudson Bay Railroad	5
	York Factory	Norway House	
		York Factory	2
Region Total:			7.0
Provincial Total:			91.0

Source: Manitoba. Department of Cultural Affairs. Historical Resources Branch. 1979. "Manitoba Historical Sites and Museums". (Unpublished data sheets). Winnipeg: Historical Resources Branch.

TABLE 46

INVENTORY

HISTORICAL SITES BY NATURAL REGIONS
(TOTALS)

Natural Regions	Number of Sites
Winnipeg	53.5
Winkler	11.0
Brandon	8.5
Dauphin	6.5
Interlake	1.5
The Pas	3.0
Northern	7.0
Provincial Totals	91.0

Source: Table 45.

encompass the majority of the major road networks in the province. The designated driving tours were taken directly from the 1979-80 Manitoba Vacation Guide and tabulated into natural regions (Table 47).

The Winnipeg region has 32.4% of the total kilometers of designated driving tours in the province. Many of the routes incorporate the city of Winnipeg, but it would be difficult to separate the proportion of tours which take place on city of Winnipeg roads.

(5) Walking or Hiking.—As in driving for pleasure, a person can also walk or hike almost anywhere but this study will limit the supply to designated hiking and interpretive trails (Table 48). There are trails within the city of Winnipeg but very few are designated. They exist because they are used by the public but they are not maintained by the city of Winnipeg.

In the case of hiking and interpretive trails, the Brandon and Dauphin regions account for 69.7% of the supply (Table 49). The main reason for this is the large inventory from Riding Mountain National Park which is divided between the two regions (Table 48). This federal park contains 54.1% of total number of trails in the province and 65.0% of the total length of trails. If one discounts the federal park inventory, the Winnipeg region has the largest inventory with 76.7% of the length of trails. With the federal inventory, the Winnipeg region has 26.9%. The Pas, Interlake and Northern regions combined have only 3.4% of the total inventory of hiking and interpretive trails.

(6) Back Packing.—There are a few of the hiking trails listed in Table 84 which could also double as back packing or extended hiking trails. They are the Mantario Hiking Trail (60 km.) in the Whiteshell Provincial Park in the Winnipeg region and the Clear Lake Hiking Trail

TABLE 47

INVENTORY

DESIGNATED DRIVING TOURS BY NATURAL REGIONS

Natural Regions	Total Kilometers
Brandon	986
Dauphin	705
Interlake	111
Northern	248
The Pas	435
Winkler	322
Winnipeg	1,344
Provincial Total	4,151

Source: Manitoba. Department of Tourism, Recreation and Cultural Affairs. Tourist Branch. 1979. 1979-1980 Manitoba Guide. :114-125. Winnipeg: Queen's Printer.

TABLE 48

INVENTORY

DESIGNATED HIKING AND INTERPRETIVE TRAILS (BY REGION)

	Length (KM)	
Brandon Region		
Spruce Woods Provincial Park		
Bald Head Hills Interpretive Trail	3.2	
Oxbow Lake Interpretive Trail	1.6	
Isputinaw Interpretive Trail	1.5	
Marsh's Lake Interpretive Trail	1.6	
Turtle Mountain Provincial Park		
Dead Lake Interpretive Trail	1.5	
Region Total		9.4
Dauphin Region		
Asessippi Provincial Park		
Sipwa Interpretive Trail	3.5	
Duck Mountain Provincial Park		
Baldy Mountain Hiking Trail	0.5	
Blue Lake Hiking Trail	6.5	
Copernicus Interpretive Trail	1.5	
Shining Stone Interpretive Trail	0.8	
Spray Lake Hiking Trail	5.5	
Region Total		18.3
Interlake Region		
Hecla Provincial Park		
Pleasant Point Hiking Trail	0.4	
West Quarry Hiking Trail	14.0	
Region Total		14.4
Northern Region		
Pisew Falls Wayside Park		
Pisew Falls Interpretive Trail	2.6	
Paint Lake Provincial Recreation Park	3.0	
Region Total		5.6
The Pas Region		
Region Total		0.0

TABLE 48 - Continued

	Length (KM)
Winkler Region	
Region Total	0.0
Winnipeg Region	
Birds Hill Provincial Park	
Cedar Bog Interpretive Trail	3.7
North Drive Interpretive Trail	2.4
South Drive Interpretive Trail	2.4
Dawson Trail Wayside Park	
Dawson Hiking Trail	2.4
Grand Beach Provincial Park	
Ancient Beach Interpretive Trail	2.5
Sandilands Provincial Forest	
Hiking Trail 1	9.7
Hiking Trail 2	8.9
Hiking Trail 3	12.9
Whitemouth River Wayside Park	
Hiking Trail Loop 1	2.4
Hiking Trail Loop 2	1.6
Hiking Trail Loop 3	3.2
Whiteshell Provincial Park	
Amisk Hiking Trail	5.6
Assinika Interpretive Trail	2.4
Bear Lake Hiking Trail	8.1
Beaver Creek Interpretive Trail	4.1
Hunt Lake Hiking Trail	16.0
Mantario Hiking Trail	60.0
McGillvary Falls Interpretive Trail	4.9
Pine Point Hiking Trail	3.5
Region Total	156.7
Riding Mountain Provincial Park	
Arrowhead Interpretive Trail	2.7
Baldy Lake Hiking Trail	8.1
Beach Ridge Hiking Trail	3.7
Bead Lakes Hiking Trail	3.2
Birdtail Hiking Trail	11.3
Brule Interpretive Trail	4.2
Burls and Bittersweet Interpretive Trail	2.3
Clear Lake Hiking Trail	36.0
Cowan Lake Hiking Trail	19.3
Crawford Creek Hiking Trail	29.0
Evergreen Hiking Trail	1.6
Gorge Creek Hiking Trail	6.4

TABLE 4C - Continued

Riding Mountain Provincial Park Cont'd.	Length (KM)	
Grasshopper Valley Hiking Trail	21.7	
Grey Owl Interpretive Trail	19.3	
Gunn Lake Hiking Trail	3.9	
Long Lake Hiking Trail	12.1	
Loon's Island Hiking Trail	2.4	
Ma-ee-gun Interpretive Trail	1.0	
Moon Lake Hiking Trail	9.7	
Muskrat Lake Hiking Trail	14.5	
North Escarpment Hiking Trail	64.4	
Oak Ridge Hiking Trail	7.7	
Ominnik Marsh Interpretive Trail	1.9	
South Escarpment Hiking Trail	23.3	
Strathclair Hiking Trail	23.3	
Sugar Loaf Hiking Trail	8.1	
Tilson Lake Hiking Trail	37.8	
Park Total		378.9
Provincial Total		583.3

Source: Manitoba. Department of Economic Development and Tourism. 1971. "Facilities Inventory". (Computer printout). Winnipeg: Manitoba Bureau of Statistics.

: Manitoba. Department of Mines, Natural Resources and the Environment. Parks Branch. 1979. "Manitoba Trails Guide". (Unpublished manuscript compiled by W.M. Nanka, April 1976, updated by F. A. Merkl, April 1979). Winnipeg: Parks Branch.

: Manitoba. Department of Tourism, Recreation and Cultural Affairs. Tourist Branch. 1979. 1979-1980 Manitoba Vacation Guide. Winnipeg: Queen's Printer.

: Updated as described in text.

TABLE 49

INVENTORY

DESIGNATED HIKING AND INTERPRETIVE TRAILS BY NATURAL REGIONS
(TOTALS)

Natural Regions	Length of Trails (km)
Winnipeg	156.7
Winkler	0.0
Brandon	198.8
Dauphin	207.8
Interlake	14.4
The Pas	0.0
Northern	5.6
Provincial Total:	583.3

Source: Table 48.

(36 km.), Crawford Creek Hiking Trail (29 km.), North Escarpment Hiking Trail (64.4 km.), South Escarpment Hiking Trail (23.3 km.), Strathclair Hiking Trail (23.3 km.), and the Tilson Lake Hiking Trail (37.8 km.), all located in Riding Mountain National Park. The inventory of trails in the federal park is split between the regions of Brandon and Dauphin. There are a total of 273.8 km. of designated back packing trails in the province.

The Winnipeg region has 21.8% of the supply of back packing trails, with the Brandon and Dauphin regions each having 39.1%.

(7) Bicycling.—There are only a few designated bicycle routes in the province. They are located within the city of Winnipeg. They vary from permanently restricted roadways for bicycles (Assiniboine Park) to temporary restricted roadways (Wellington Crescent and Wolseley Avenue on Sundays). The Manitoba Vacation Guide lists an unofficial network of bicycle routes varying in length and scenery. Most of these routes use the city roadways which are not exclusive to bicycles. Because a bicycle can be ridden almost anywhere, an inventory of possible routes would be impossible. It is therefore assumed that the inventory is unlimited.

(8) Horseback Riding.—There are probably quite a few more horseback riding trails and stables in the province than are listed by this study (Table 50). The problem stems from not having a good reliable source of information. The 1971 Facilities Inventory has not been kept up-to-date for horseback riding trails and stables. The rural and urban telephone directories were also used for an information source but very few stables list themselves in the yellow page section.

TABLE 50

INVENTORY
HORSEBACK RIDING TRAILS

	Length (km.)
Brandon	
Brandon Trail Ride Centre	13
Minnedosa	
Marie's Riding Stable	9
Riding Mountain National Park	
Circle S Riding Academy	391
St. Laurent	
Wagonwheel Ranch	19
Spruce Woods Provincial Park	
Spruce Woods Park Riding Stable	43
Whiteshell Provincial Park	
Falcon Beach Riding Stables	54
Pinewood Lodge and Ranch	83
Winnipeg	
Birds Hill Park Riding Stable	27
Miracle Ranch	7
Seine River Stables	15
Sunshine Riding Academy	23
Provincial Total	684

Source: Manitoba. Department of Economic Development and Tourism. 1971. "Facilities Inventory". (Computer printout). Winnipeg: Manitoba Bureau of Statistics.

: Manitoba. Department of Tourism, Recreation and Cultural Affairs. Tourist Branch. 1979. 1979-1980 Manitoba Vacation Guide. Winnipeg: Queen's Printer.

: Updated as described in text.

In some cases the length of trails was verified with the stable owners. One problem which arose was the owner's lack of knowledge. Some stable owners did not know the length of their trails but were familiar with only the number of trails they had. Many of the stable owners referred to the length of time it took to travel the trails instead of a measurement of distance. It is therefore suggested to the reader that the inventory of length of horseback riding trails not be accepted as accurate (Table 51). Caution should be used in utilizing the information.

(9) Swimming.—Outdoor swimming can take place at either outdoor swimming pools or at beaches. It is assumed that the majority of the people swimming out-of-doors do so at public swimming pools and at serviced beaches as opposed to private pools and unserviced beaches. Outdoor swimming pools are included in the inventory because they directly affect the demand for serviced beaches, in fact, the heated outdoor swimming pools extend the season for outdoor swimming and therefore affect the demand more than the unheated pools.

The supply of serviced beaches is calculated by length of beach in meters (Table 52). The supply is greatest for the Winnipeg region (63.1%), (Table 53). There are no serviced beaches for the urban portion (city of Winnipeg) of the study. The Northern and Winkler regions have the least inventory of serviced beaches available for their populations.

The supply of outdoor swimming pools in the province can be broken down into rural and urban portions by separating the city of Winnipeg from the listing (Table 54). The rural portion of the province

TABLE 51

INVENTORY

HORSEBACK RIDING TRAILS BY NATURAL REGIONS
(TOTALS)

Natural Regions	Length (km)
Winnipeg	228.0
Winkler	0.0
Brandon	260.5
Dauphin	195.5
Interlake	0.0
The Pas	0.0
Northern	0.0
Provincial Total:	684.0

Source: Table 50 .

TABLE 32

SERVICED BEACHES BY NATURAL REGIONS

Natural Region R.M. or L.G.D.	Beach	Length In Metres	R.M. Total Length
Winnipeg			
Alexander (L.G.D.)	Black Forest	152.4	
	Pioneer Beach	30.5	
	Poplar Bay Campground	15.2	
	Gull Lake	76.2	
	St. George Beach	121.9	396.2
*Bifrost (R.M.)	Hnausa Beach	387.1	387.1
Brokenhead (R.M.)	Sherwood Forest Camp	45.7	45.7
*Coldwell (R.M.)	Lundar Beach	182.9	182.9
*De Salaberry (R.M.)	St. Malo Provincial Recreation Park	61.0	61.0
*Dufferin (R.M.)	Stephenfield Dam Recreation Area	182.9	182.9
Gimli (R.M.)	Almond's Acres Trailer Park	152.4	
	Camp Arnes	182.9	
	Camp Morton	15.2	
	Husavick Beach	274.3	
	Loni Beach	30.5	
	Spruce Sands Trailer Court	254.0	
	South Beach	254.0	1,163.3
*MacDonald (R.M.)	Evening Star Resort	30.5	30.5
Pinawa (L.G.D.)	Pinawa Beach	76.2	76.2
Portage la Prairie (R.M.)	Delta Beach	68.6	
	Norquay Beach	609.6	
	St. Ambroise Beach	1,341.1	2,019.3
Rockwood (R.M.)	Norris Lake Wayside	33.5	33.5
Rosser (R.M.)	Summerland Farms Limited	518.2	518.2

*Half Supply Counted.

TABLE 52 - Continued

Natural Region R.M. or L.G.D.	Beach	Length In Metres	R.M. Total Length
Winnipeg (cont'd)			
St. Andrews (R.M.)	Chesley's Lodge Resort	45.7	
	Sportsman's Paradise Lodge	61.0	
	Winnipeg Beach	792.5	899.2
Ste. Anne (R.M.)	Lilac Trailer Park	152.4	152.4
St. Clements (R.M.)	Grand Beach Provincial Park	3,352.8	
	Patricia Beach Provincial Recreation Park	2,414.0	5,766.8
St. Laurent (R.M.)	Twin Lakes Beach	30.5	30.5
Springfield (R.M.)	Birds Hill Provincial Park	1,158.2	
	Ponderosa Resort	152.4	
	Oasis Beach	254.0	1,564.6
Victoria Beach (R.M.)	Victoria Beach	2,712.7	2,712.7
Winnipeg Unorganized	Betula Lake-Whiteshell Provincial Park	91.4	
	Betula Lake Campground-Whiteshell Park	115.8	
	Birch Point Provincial Recreation Park	45.7	
	Big Whiteshell Lake-Whiteshell P.P.	213.4	
	Bird Lake-Nopiming Provincial Park	45.7	
	Brereton Lake-Whiteshell Prov. Park	131.1	
	Caddy Lake-Whiteshell Prov. Park	76.2	
	Caribou Landing-Nopiming Prov. Park	15.2	
	Dorothy Beach-Whiteshell Prov. Park	121.9	
	Falcon Beach-Whiteshell Prov. Park	457.2	
	Faloma Beach-Whiteshell Prov. Park	91.4	
	Inverness Falls-Whiteshell Prov. Park	91.4	
	Jessica Lake-Whiteshell Prov. Park	30.5	
	Lakeshore Campground-Whiteshell P.P.	91.4	
	Moose Lake Prov. Rec. Park	182.9	
	Nutimik Lake-Whiteshell Prov. Park	121.9	

TABLE 52 - Continued

Natural Region R.M. or L.G.D.	Beach	Length In Metres	R.M. Total Length
Winnipeg (cont'd)			
	Opapiskaw Campground-Whiteshell Prov. Park	106.7	
	Otter Falls Campground and Resort, Whiteshell Provincial Park	243.8	
	Red Rock Lake-Whiteshell Provincial Park	30.5	
	Star Lake-Whiteshell Provincial Park	91.4	
	Toniata Campground-Whiteshell Provincial P.	152.4	
	Wallace Lake Campground	45.7	
	Wanipigow Lake Campground	45.7	
	West Hawk Lake-Whiteshell Provincial Park	254.0	
	White Lake Picnic Area-Whiteshell Prov. P.	15.2	
	White Lake Campground-Whiteshell Prov. P.	76.2	
Woodlands (R.M.)	Miami Beach	365.8	2,984.70
Region Total:			365.8
			19,573.4
Winkler			
*Argyle (R.M.)	Kiwanis Beach		
	Rock Lake	36.6	
*De Salaberry (R.M.)	St. Malo Provincial Park	30.5	67.1
*Dufferin (R.M.)	Stephenfield Dam Recreation Area	60.9	60.9
Franklin (R.M.)	Roseau River Park	182.9	182.9
*MacDonald (R.M.)	Evening Star Resort	30.5	30.5
Stanley (R.M.)	Morden Colbert Beach	30.5	30.5
Region Total:		152.4	152.4
			524.3

*Half Supply Counted.

TABLE 52 - Continued

Natural Region R.M. or L.G.D.	Beach	Length In Metres	R.M. Total Length
Brandon			
*Argyle (R.M.)	Kiwanis Beach	36.6	
	Rock Lake	30.5	67.1
*Clanwilliam (R.M.)	Gertrude Lake	22.9	22.9
Daly (R.M.)	Rivers Campground	152.4	152.4
Glenwood (R.M.)	Victoria Park, Souris	30.5	30.5
Harrison (R.M.)	Sandy Lake Beach	91.4	91.4
*Lakeview (R.M.)	Hollywood Beach	198.1	198.1
Langford (R.M.)	Lake Irwin Park	121.9	
	Neepawa Lions Riverbend Park	22.3	144.8
*Lansdowne (R.M.)	Lansdowne Centennial Park	45.7	45.7
Minto (R.M.)	Minnedosa Beach	73.2	73.2
Morton (R.M.)	Adam Lake	137.2	
	Max Lake	30.5	
	William Lake	152.4	320.1
*Park (L.G.D.)	Aspen Picnic Area	19.1	
	Frith Beach	138.2	
	Lake Kathrine	15.3	
	Moon Lake	10.6	
	Onanole	6.1	
	Wasagaming Beach	182.9	372.2
*Rossburn (R.M.)	Rossman Lake Resort	141.8	141.8
Saskatchewan (R.M.)	Rapid City Centennial Park	91.4	
	Rapid City Playground	24.4	115.8

*Half Supply Counted.

TABLE 52 - Continued

Natural Region R.M. or L.G.D.	Beach	Length In Metres	R.M. Total Length
Brandon (cont'd)			
*Shoal Lake (R.M.)	Lakeview Park	91.5	
	Marshal Chambers Park	91.4	
	Oak Lake Recreation Area	45.7	228.6
*Silver Creek (R.M.)	Silver Beach Summer Resort	143.3	143.3
South Cypress (R.M.)	Kiche Manitou Beach	137.2	137.2
Strathclair (R.M.)	Pelican Lake	457.2	
	Salt Lake Carlton Park	61.0	
	Thomas Lake	61.0	579.2
*Westbourne (R.M.)	Lynch's Point	22.9	22.9
Whitewater (R.M.)	Riverside Park - Minto	30.5	
	Souris River Wayside Park	30.5	
	Whitewater Centennial Park	61.0	122.0
Winchester (R.M.)	Lake Metigoshe, Deloraine Beach	30.5	30.5
Woodworth (R.M.)	Kenton Park Dam	91.4	91.4
Region Total:			3,131.1
Dauphin			
Alonsa (L.G.D.)	Amaranth Beach	365.8	
	Margaret Bruce Wayside Park	182.9	548.7
*Clanwilliam (R.M.)	Gertrude Lake	22.8	22.8
Dauphin (R.M.)	Sifton Beach	121.9	
	Stony Point Beach	91.4	213.3
Dauphin Unorganized	Blue Lakes Campground	91.4	
	Childs Lake Campground	61.0	

*Half Supply Counted.

TABLE 52 - Continued

Natural Region R.M. or L.G.D.	Beach	Length In Metres	R.M. Total Length
Dauphin (cont'd)			
	Crane River Beach	30.5	
	Singush Lake Campground	7.6	
	Steep Rock Lake Wayside	15.2	
	Wellman Lake Camp	30.5	
	Wellman Lake Campground	76.2	
	Whitefish Lake Campground	182.9	495.3
*Lakeview (R.M.)	Hollywood Beach	198.1	198.1
*Lansdowne (R.M.)	Lansdowne Centennial Park	45.7	45.7
Lawrence (R.M.)	Manipogo Provincial Recreation Park	457.2	
	Methley Beach Provincial Recreation Park	61.0	518.2
Mossey River (R.M.)	Winnipegosis Beach	365.8	365.8
Ochre River (R.M.)	Rainbow Beach	160.9	160.9
*Park (L.G.D.)	Aspen Picnic Area	19.1	
	Frith Beach	138.2	
	Lake Kathrine	15.3	
	Moon Lake	10.6	
	Onanole	6.1	
	Wasagaming Beach	182.9	372.2
*Rossburn (R.M.)	Rossman Lake Resort	283.5	283.5
Shellmouth (R.M.)	Asessippi Provincial Park	536.5	
	Inglis Beach	33.5	570.0
*Shoal Lake (R.M.)	Lakeview Park	91.5	
	Marshal Chambers Park	91.4	
	Oak Lake Recreation Area	45.7	228.6

*Half Supply Counted.

TABLE 52 - Continued

Natural Region R.M. or L.G.D.	Beach	Length In Metres	R.M. Total Length
Dauphin (Cont'd)			
*Silver Creek (R.M.)	Silver Beach Summer Resort	143.3	143.3
*Westbourne (R.M.)	Lynch's Point	22.8	22.8
Region Total:			4,047.4
Interlake			
*Bifrost (R.M.)	Hnausa Beach	387.1	387.1
*Coldwell (R.M.)	Lundar Beach	182.9	182.9
Grahamdale (R.M.)	Watchorn Bay Provincial Recreation Park	609.6	609.6
Grand Rapids (L.G.D.)	Grand Rapids Wayside Park	15.2	15.2
Interlake Unorganized	Anama Bay Tourist Camp	30.5	
	Beaver Creek Provincial Recreation Park	254.0	
	Gull Harbour-Hecla Island	609.6	
	Lake St. Andrews Wayside	15.2	
	Sunset Beach-Hecla Island	121.9	
Region Total:			1,031.2
			2,226.0
The Pas			
Snow Lake (L.G.D.)	Snow Lake Park	30.5	30.5
The Pas Unorganized	Bakers Narrows Provincial Recreation Park	45.7	
	Campers Cove-Clearwater Provincial Park	61.0	
	Lake Athapapuskow	82.3	
	Phantom Beach Complex	137.2	
	Reed Lake-Grass River Provincial Park	15.2	
	Sally's Beach Wayside	182.9	
	Simonhouse Lake-Grass River Prov. Park	45.7	

*Half Supply Counted.

TABLE 52 - Continued

Natural Region R.M. or L.G.D.	Beach	Length In Metres	R.M. Total Length
The Pas (cont'd)			
	Sunset Beach-Clearwater Provincial Park	428.5	
	Wekusko Falls	15.2	
	Whitefish Lake Wayside Park	15.2	
Region Total:			1,097.5
			1,128.0
Northern			
Lynn Lake (L.G.D.)	Berge Lake Provincial Recreation Park	182.9	
	Zed Lake Provincial Recreation Park	91.4	274.3
Mystery Lake (L.G.D.)	Paint Lake Provincial Recreation Park	76.2	76.2
Northern Unorganized	Cross Lake-	15.2	15.2
Region Total:			365.7
Provincial Total:			30,995.9

*Half Supply Counted.

Source: Manitoba. Department of Economic Development and Tourism. 1971. "Facilities Inventory". (Computer printout). Winnipeg: Manitoba Bureau of Statistics.

: Manitoba. Department of Tourism, Recreation and Cultural Affairs. Tourist Branch. 1979. 1979-1980 Manitoba Vacation Guide. Winnipeg: Queen's Printer.

: Updated as described in the text.

TABLE 53

INVENTORY

SERVICED BEACHES BY NATURAL REGIONS
(TOTALS)

Natural Regions	Total Length in Metres
Winnipeg	19,573.4
Winkler	524.3
Brandon	3,131.1
Dauphin	4,047.4
Interlake	2,226.0
The Pas	1,128.0
Northern	365.7
Provincial Totals	30,995.9

Source: Table 50 .

TABLE 54

OUTDOOR SWIMMING POOLS BY NATURAL REGIONS

Natural Region / R.M. or L.G.D.	Location	Number of Pools		
		Heated	Unheated	R.M.Total
Winnipeg				
Alexander (L.G.D.)	Pine Falls		1	1
Brokenhead (R.M.)	Beausejour		1	1
*Dufferin (R.M.)	Carman		1	1
Hanover (R.M.)	Grunthal	1		1
*Morris (R.M.)	Morris	0.5		0.5
Pinawa (L.G.D.)	Pinawa		1	1
Piney (L.G.D.)	Nassar	1		1
Portage la Prairie (R.M.)	Oakland		1	
	Portage la Prairie		2	3
Richot (R.M.)	St. Adolphe		1	1
Rockwood (R.M.)	Stonewall		1	1
St. Andrews (R.M.)	Selkirk		1	1
Ste. Anne (R.M.)	Ste. Anne	1		1
Winnipeg City	Central Pool		1	
	Conestoga Campsites		1	
	Fort Garry Lions Memorial Park	1		
	Happyland Park Pool		1	
	Kildonan Park Pool	1		
	Norquay Park Pool		1	
	Norwood Community Centre Pool		1	
	Provencher Pool		1	
	St. Vital Centennial Pool	1		
	Sunny Harbour Campground		1	
	Transcona Kinsmen Pool	1		
	Whitehorse Plains Campground		1	
	Windsor Pool		1	
	Yogi Bear's Jellystone Park		1	15
Winnipeg Unorganized	Pointe du Bois		1	1
Region Total:		8.5	21.5	30
Winkler				
*Dufferin (R.M.)	Carman		1	1
Franklin (R.M.)	Dominion City		1	1

*Half Supply Counted.

TABLE 54 - Continued

Natural Region R.M. or L.G.D.	Location	Number of Pools		
		Heated	Unheated	R.M.Total
Winkler (cont'd)				
Louise (R.M.)	Pilot Mound		1	1
Montcalm (R.M.)	Emerson	1		1
*Morris (R.M.)	Morris	0.5		0.5
Pembina (R.M.)	Manitou	1		1
Rhineland (R.M.)	Altona	1		1
South Norfolk (R.M.)	Treherne		1	1
Stanley (R.M.)	Morden		1	
	Winkler	1		2
*Stuartburn (L.G.D.)			0.5	0.5
Region Total:		4.5	5.5	10.0
Brandon				
Arthur (R.M.)	Melita	1		1
*Birtle (R.M.)	Birtle		0.5	0.5
Cornwallis (R.M.)	Brandon	3	1	4
*Ellice (R.M.)	St. Lazare		0.5	0.5
Glenwood (R.M.)	Souris	1	1	2
Langford (R.M.)	Neepawa	1	1	2
Morton (R.M.)	Boissevain		1	1
North Norfolk (R.M.)	Sidney	1		1
Oakland (R.M.)	Wawanesa		1	1
*Park (L.G.D.)	Onanole	1		1
*Russell (R.M.)	Binscarth		1	1
Wallace (R.M.)	Virden	1		1
*Westbourne (R.M.)	Gladstone		0.5	0.5
Region Total:		8.5	7.5	16.0
Dauphin				
*Birtle (R.M.)	Birtle		0.5	0.5

*Half Supply Counted.

TABLE 54 - Continued

Natural Region / R.M. or L.G.D.	Location	Number of Pools		
		Heated	Unheated	R.M. Total
Dauphin (Cont'd)				
Dauphin (R.M.)	Dauphin	2		2
*Ellice (R.M.)	St. Lazare		1	1
Gilbert Plains (R.M.)	Gilbert Plains	1		1
Grandview (R.M.)	Grandview	1		1
Mountain (L.G.D.)	Birch River	1		1
*Park (L.G.D.)	Onanole	0.5		0.5
*Russell (R.M.)	Binscarth		1	1
Shellmouth (R.M.)	Inglis		1	1
Swan River (R.M.)	Swan River		1	1
*Westbourne (R.M.)	Gladstone		1	1
Region Total:		5.5	4.5	10.0
Interlake				
Region Total:		0.0	0.0	0.0
The Pas				
Region Total:		0.0	0.0	0.0
Northern				
Region Total:		0.0	0.0	0.0
Provincial Total:		27.0	39.0	66.0

*Half Supply Counted.

Source: Manitoba. Department of Economic Development and Tourism. 1971. "Facilities Inventory". (Computer printout). Winnipeg: Manitoba Bureau of Statistics.

: Manitoba. Department of Tourism, Recreation and Cultural Affairs. Tourist Branch. 1979. 1979-1980 Manitoba Vacation Guide. Winnipeg: Queen's Printer.

: Updated as described in the text.

has 77.3% of the total number of outdoor swimming pools of which 43.1% are heated. The urban portion has 22.7% of the province's outdoor pools of which 33.3% are heated (Table 54).

The Winnipeg region has 45.5% of the province's public outdoor pools of which 28.3% are heated (Table 55). The regions of Interlake, Northern and The Pas appear to lack public outdoor swimming pools. In the case of the Winkler region having only 1.7% of the province's serviced beaches, it has 15.1% of the total number of outdoor pools in the province.

(10) Fishing.—According to the Manitoba Vacation Guide there are some 100,000 square kilometers of water in the province of Manitoba. There are more than a dozen varieties of game fish native to Manitoba waters. The sport fishing waters are many and varied. Ice-fishing is also becoming a popular winter activity and with the use of snowmobiles most waters are accessible.

It is difficult to calculate the actual amount of water in the province which could be used for fishing. It will be assumed that the supply far exceeds the demand and is therefore deserving of little attention.

(11) Hunting.—Hunting in the province is prohibited in certain zones and provincial parks. The public is not allowed to hunt on private land without permission of the owner. The amount of land available for hunting is limited to a certain extent. Like the amount of water available for fishing, the amount of land available for hunting is difficult to calculate. It is assumed that the supply of available hunting land is greater than the demand.

TABLE 55

INVENTORY

OUTDOOR SWIMMING POOLS BY NATURAL REGIONS
(TOTALS)

Natural Regions	Number of Pools		
	Heated	Unheated	Total
Winnipeg	8.5	21.5	30
Winkler	4.5	5.5	10
Brandon	8.5	7.5	16
Dauphin	5.5	4.5	10
Interlake	0.0	0.0	0
The Pas	0.0	0.0	0
Northern	0.0	0.0	0
Provincial Totals	27.0	39.0	66

Source: Table 54.

(12) Sailing.—Sailing waters are usually substantial in area. As in fishing, the amount of water available is assumed to be sufficient.

(13) Canoeing.—Although a canoe can travel most waters this study takes into account designated or mapped canoe routes as they are listed in the Manitoba Vacation Guide or mapped by the Provincial Parks Branch.

Some of the routes pass through the city of Winnipeg on the various rivers but a rural-urban breakdown will not be analyzed as several of the routes utilize the same portion of the rivers. Much of the duplicate use of northern rivers by different routes was eliminated. The canoe routes are listed in Table 56. The Northern region has by far the most kilometers of canoe routes of all the regions. It has 62.4% of the provincial inventory followed by the Winnipeg region with 22.5% (Table 57). The Winkler, Brandon and Dauphin regions combined supply only 6.4% of the canoe routes in the province.

(14) Power Boating.—As in sailing, the amount of water available for power boating is limited to the total amount of surface water in the province minus those waters which are too shallow (depending on the size of the boat) and also minus those waters which do not have access (depending upon the size of the boat). Some small power boats can be portaged into lakes which are normally inaccessible to larger boats. It is therefore impossible to calculate the amount of water available for power boating. As a result of the abundance of water in the province it is assumed that there is plenty of boating water to meet current and projected demand.

TABLE 56

DESIGNATED CANOE ROUTES BY NATURAL REGIONS

	Length (KM)	
Brandon Region		
Spruce Woods Provincial Park		
Brandon to Spruce Woods Route	100.0	
Spruce Woods to Portage Diversion Dam	165.0	
Souris River Route	265.5	
Region Total		530.5
Dauphin Region		
Duck Mountain Provincial Park		
Beaver Lake Route	6.0	
Chain Lakes Route	5.0	
Region Total		11.0
Interlake Region		
Region Total		00.0
Northern Region		
Headwater Lake-McPhail River Route	90.0	
Land of Little Sticks Route	3,500.0	
Little Grand Rapids to Pigeon Bay Route	177.0	
Little Grand Rapids to Poplar River Indian Res.	257.5	
Middle Track-Hayes River Route	2,009.5	
Poplar River-Sparrowhawk Lake Route	56.0	
Pukatawagan Route	151.0	
Region Total		6,241.0
The Pas Region		
Grass River Provincial Park		
Grass River Route	724.0	
Mistik Creek Route	80.5	
Pineroot Chain Route	64.5	
Region Total		869.0
Winkler Region		
Pembina Canoe Trail	97.5	
Region Total		97.5

TABLE 56 - Continued

Winnipeg Region	Length (KM)	
Frances Lake Route	35.5	
Kautunigan Route	483.0	
Manigotogan River Route	80.5	
Portage la Prairie to Winnipeg Route	155.0	
Red River-Lake Winnipeg Route	64.5	
Rivière Aux Rats Route	225.0	
Sasaginnigak Canoe Country	720.0	
Whitemouth River Route	211.0	
Whiteshell Provincial Park		
Caddy Lake Route	169.0	
Winnipeg-Emerson Route	112.5	
Region Total		2,256.0
Provincial Total		10,005.0

Source: Manitoba. Department of Tourism, Recreation and Cultural Affairs. Tourist Branch. 1979. 1979-1980 Manitoba Vacation Guide. Winnipeg: Queen's Printer.

: Updated as described in the text.

TABLE 57

INVENTORY

DESIGNATED CANOE ROUTES BY NATURAL REGIONS
(TOTALS)

Natural Regions	Length of Route (km)
Winnipeg	2,256.0
Winkler	97.5
Brandon	530.5
Dauphin	11.0
Interlake	0.0
The Pas	869.0
Northern	6,241.0
Provincial Total:	10,005.0

Source: Table 77.

(15) Water Skiing.—The discussion that applies to power boating can be applied to water skiing.

(16) Cross-country skiing.—There are many cross-country ski trails in the province (Table 58). Many of them are not designated as such but they are used year after year. There are a few which are designated (mapped and posted). The designated trails themselves may vary from year to year by a few feet but generally the length remains virtually the same. Unlike the designated trails, the undesignated ones may vary from year to year. It all depends on who first breaks the trail each year.

There are many designated trails in the city of Winnipeg but the lengths are not readily available so therefore, further discussions will only reflect designated trails outside of Winnipeg. The Winnipeg region has 40.4% of the province's designated cross-country ski trails (Table 59). The Brandon and Dauphin regions combined have 45.4%. The major influence in these two regions is Riding Mountain National Park which supplies 41.8% of the provincial inventory of cross-country ski trails. The Winkler region shows no inventory.

(17) Snowshoeing.—Snowshoeing is another outdoor activity which does not require designated trails, and once again it is difficult to quantify the actual inventory. The only information available is related to designated trails (Table 60).

There are no designated snowshoeing trails within the city of Winnipeg, therefore the inventory is related to the rural sector only. The area lying outside the city of Winnipeg in the Winnipeg region contains most of the inventory. The Winnipeg region has 68% of the provincial inventory (Table 61). It also has 68% of the provincial

TABLE 58

DESIGNATED CROSS-COUNTRY SKI TRAILS BY NATURAL REGIONS

	Total Trail Length (KM)	
Brandon Region		
Turtle Mountain Provincial Park	109	
Riding Mountain National Park (1/2)		
Region Total		109
Dauphin Region		
Riding Mountain National Park (1/2)	92	
Region Total		92
Interlake Region		
Hecla Provincial Park	30	
Region Total		30
Northern Region		
Paint Lake Provincial Recreation Park	3	
Region Total		3
The Pas Region		
Bakers Narrows Provincial Recreation Park	15	
Clearwater Lake Provincial Park	15	
Region Total		30
Winkler Region		
Region Total		0
Winnipeg Region		
Agassiz Provincial Forest	17	
Birds Hill Provincial Park	27	
Norquay Beach Provincial Recreation Park	3	
Sandilands Provincial Forest	26	
Spruce Woods Provincial Forest	55	

TABLE 53 - Continued

	Total Trail Length (KM)
Winnipeg Region Cont'd.	
Whitemouth River Wayside Park	14
Whiteshell Provincial Park	37
Region Total	179
Provincial Rural Total	443

Source: Manitoba. Department of Economic Development and Tourism. 1971. "Facilities Inventory". (Computer printout). Winnipeg: Manitoba Bureau of Statistics.

: Manitoba. Department of Mines, Natural Resources and the Environment. Parks Branch. 1979. "Manitoba Trails Guide". (Unpublished manuscript compiled by W. M. Nanka, April 1976, updated by F. A. Merkl, April 1979). Winnipeg: Parks Branch.

: Manitoba. Department of Tourism, Recreation and Cultural Affairs. Tourist Branch. 1979. 1979-1980 Manitoba Vacation Guide. Winnipeg: Queen's Printer.

: Updated as described in the text.

TABLE 59

INVENTORY

DESIGNATED CROSS-COUNTRY SKI TRAILS BY NATURAL REGIONS (TOTALS)

Natural Regions	Total Trail Length (km)
Winnipeg	179
Winkler	0
Brandon	109
Dauphin	92
Interlake	30
The Pas	30
Northern	3
Provincial Total:	443

Source: Table 58.

TABLE 60

DESIGNATED SNOWSHOE TRAILS BY NATURAL REGIONS

	Length (KM)	
Brandon Region		
Spruce Woods Provincial Park		
Isputinaw Snowshoe Trail	3.0	
Oxbow Lake Snowshoe Trail	3.5	
Turtle Mountain Provincial Park		
Max Lake Snowshoe Trail	1.6	
Riding Mountain National Park		
Bead Lakes Snowshoe Trail (1/2)	1.6	
Region Total		9.7
Dauphin Region		
Duck Mountain Provincial Park		
Baldy Mountain Snowshoe Trail	0.5	
Riding Mountain National Park (1/2)		
Beach Lakes Snowshoe Trail	1.6	
Region Total		2.1
Interlake Region		
Hecla Provincial Park		
Gull Harbour Snowshoe Trail	7.0	
Region Total		7.0
Northern Region		
Region Total		0.0
The Pas Region		
Region Total		0.0
Winkler Region		
Region Total		0.0
Winnipeg Region		
Birds Hill Provincial Park		
South Drive Snowshoe Trail	1.5	
Cedar Bog Snowshoe Trail	3.7	
Dawson Trail Wayside Park		
Dawson Snowshoe Trail	6.4	
Whiteshell Provincial Park		
Amisk Snowshoe Trail	5.6	
Assinika Snowshoe Trail	2.4	

TABLE 60 - Continued

Winnipeg Region Cont'd.	Length (KM)	
Bear Lake Snowshoe Trail	8.1	
Beaver Creek Snowshoe Trail	4.0	
McGillvray Falls Snowshoe Trail	4.9	
Pine Point Snowshoe Trail	3.5	
Region Total		40.1
Provincial Total		58.9

Source: Manitoba. Department of Economic Development and Tourism. 1971. "Facilities Inventory". (Computer printout). Winnipeg: Manitoba Bureau of Statistics.

: Manitoba. Department of Mines, Natural Resources and the Environment. Parks Branch. 1979. "Manitoba Trails Guide". (Unpublished manuscript compiled by W. M. Nanka, April 1976, updated by F. A. Merkl, April 1979). Winnipeg: Parks Branch.

: Manitoba. Department of Tourism, Recreation and Cultural Affairs. Tourist Branch. 1979. 1979-1980 Manitoba Vacation Guide. Winnipeg: Queen's Printer.

: Updated as described in the text.

TABLE 61

INVENTORY

DESIGNATED SNOWSHOE TRAILS BY NATURAL REGIONS

(TOTALS)

Natural Regions	Length (km)
Winnipeg	40.1
Winkler	0.0
Brandon	9.7
Dauphin	2.1
Interlake	7.0
The Pas	0.0
Northern	0.0
Provincial Total:	58.9

Source: Table 60.

population. The Brandon region is second highest with 16.5% of the total length of trails. The Pas and Northern regions have no designated snowshoe trails.

(18) Downhill Skiing.—There are not many downhill ski runs in the province mainly due to the fact that the physical terrain does not lend itself well to downhill skiing. There are a few runs in the province but none are located within the city of Winnipeg except for a few riverbank slopes. The main downhill skiing runs are associated with the Pembina Hills, and the Riding and Duck Mountain ranges (Table 62). Another area which is east of Winnipeg is associated with the Canadian Shield (Falcon Lake slopes).

The Winnipeg region which incorporates the Spring Hill, Stony Mountain, Falcon Lake and Roseisle ski runs has 30.7% of the provincial downhill ski slopes (Table 63). The Dauphin region is second to the Winnipeg region with 20.8% of the slopes but the average vertical height of the slopes is almost two and a half times that in the Winnipeg region and the average longest run is more than two and a half times as long. The Winkler region is second to the Dauphin region in average vertical height and average longest run but is third to the Winnipeg region in total number of slopes.

(19) Snowsledding-Tobogganing.—There are quite a few areas in the province where a person could go tobogganing. All that is required is snow, a hill which is accessible to the person wanting to use it, and a sled or toboggan. An inventory of such facilities is impossible to obtain. In the city of Winnipeg there are toboggan slides which are man-made, consisting of a wooden starting structure and an iced track

TABLE 62

DOWNHILL SKIING AREAS BY NATURAL REGIONS

Natural Region R.M. or L.G.D.	Community	Vertical Height	No. of Slopes	Longest Run (M)
Winnipeg				
*Dufferin (R.M.)	Roseisle	30.5	11	304.8
Rockwood (R.M.)	Stony Mountain	30.5	4	182.9
Springfield (R.M.)	Spring Hill	32.3	2	198.1
Winnipeg Unorganized	Falcon Lake	43.0	14	341.7
Winkler				
*Dufferin (R.M.)	Roseisle	30.5	11	304.8
Pembina (R.M.)	La Riviere	91.4	9	609.6
Brandon				
Cornwallis (R.M.)	Brandon	59.4	8	304.8
Odanah (R.M.)	Minnedosa	68.6	5	487.7
Wallace (R.M.)	Virden	61.0	3	365.8
Dauphin				
McCreary (R.M.)	McCreary	152.4	7	1402.1
Shell River (R.M.)	Roblin	91.4	6	701.0
Swan River (R.M.)	Swan River	61.9	8	548.6
Interlake		0.0	0	0.0
The Pas				
The Pas Unorganized	Flin Flon	61.0	3	365.8
Northern				
Mystery Lake (LGD)	Thompson	64.0	10	457.2
		Average Vertical Height(M)	Total No. Of Slopes	Average Longest Runs(M)
Provincial Totals:		67.0	101	477.6

*Half Supply Counted.

Source: Manitoba. Department of Tourism, Recreation and Cultural Affairs. Tourist Branch. 1979. 1979-1980 Manitoba Vacation Guide. Winnipeg: Queen's Printer.

TABLE 63

INVENTORY

DOWNHILL SKI RUNS BY NATURAL REGIONS
(TOTALS)

Natural Regions	Average Vertical Height (M)	Total Number Of Slopes	Average Longest Run (M)
Winnipeg	41.7	31	333.1
Winkler	76.2	20	609.6
Brandon	63.0	16	386.1
Dauphin	101.9	21	883.9
Interlake	-	-	-
The Pas	61.0	3	304.8
Northern	64.0	10	457.2
Provincial Totals	67.7	101	477.6

Source: Table 62.

in which the toboggans and sleds slide. There are a total of 21 of these slides in the city of Winnipeg (Table 64).

There are some undesignated areas in the city of Winnipeg where people toboggan down natural slopes, i.e. riverbanks, floodway banks, etc. These are also very hard to inventory.

(20) Outdoor Ice Skating.—Outdoor ice skating rinks are popular with the younger members of the family. Organized hockey leagues for youngsters are one of the major users of community outdoor skating rinks both in the urban and rural sectors of the province. The urban portion (city of Winnipeg) has 60% of the total number of rinks (Table 65). All of the rural portion is located in towns or communities with a great percentage associated with schools or community clubs.

The Winnipeg region has 74.5% of the provincial inventory of outdoor ice skating rinks (Table 66). The Winkler, Brandon and Dauphin regions combined have 18.7% of the inventory and the northern regions of Interlake, The Pas, and Northern have a total of 6.8% of the rinks.

(21) Snowmobiling.—There are not many designated snowmobile trails in the province due to the fact that the rural people participate more in snowmobiling than do the urban people. There are no current user studies available on snowmobile trail use but it would be safe to assume that most of the trail use especially in the Winnipeg region stems from urban participants. This is a safe assumption considering the fact that the city of Winnipeg has no supply of trails.

The Winnipeg region has most of the provincial inventory of snowmobile trails with 51.2% of the supply (Table 67). The Brandon region is second with 30.9%. The Winkler and Northern regions have no inventory but there is a trail under construction at Paint Lake

TABLE 64

INVENTORY

TOBOGGAN SLIDES AND HILLS

CITY OF WINNIPEG

D-District Level C-Community Level N-Neighbourhood Level	Number of Runs	District Total
D-Assiniboine Park-Fort Garry	3	
C-Charleswood East		
N-Vialoux	1	
		4
D-City Centre-Fort Rouge	1	
		1
D-East Kildonan-Transcona	1	
C-East Kildonan-Concordia	1	
C-East Transcona		
N-Canterbury Park	1	
		3
D-Lord Selkirk-West Kildonan	2	
C-Stoney		
N-Burrows-Keewatin	2	
		4
D-St. Boniface-St. Vital	3	
C-Central St. Vital		
N-Minnetonka	2	
		5
D-St. James-Assiniboia		
C-St. Charles		
N-Buchannan	2	
N-Crestview	1	
C-St. James East	1	
		4
Total Number for City of Winnipeg	21	

Source: Winnipeg. Parks and Recreation Department. 1978. "Inventory and Analysis Sheets and Summary Sheets". (Unpublished data sheets). Winnipeg: Parks and Recreation Department.

TABLE 65

OUTDOOR SKATING AREAS BY NATURAL REGIONS

Natural Region R.M. or L.G.D.	Community	Number Of Rinks	R.M.or L.G.D. Total
Winnipeg			
Alexander (L.G.D.)	Berens River	1	
	Great Falls	1	
	St. George	1	3
Brokenhead (R.M.)	Brokenhead	1	
	Garson	1	
	Tyndall	1	3
Cartier (R.M.)	Elie	1	1
*De Salaberry (RM)	Otterburne	1	
	St. Malo	1	2
*Dufferin (R.M.)	Carman	1	1
*Fisher (L.G.D.)	Hodgson	1	1
*Grey (R.M.)	Haywood	0.5	0.5
Hanover (R.M.)	Blumenort	1	
	New Bothwell	2	
	Randolph	1	
	Steinbach	1	5
*MacDonald (R.M.)	Brunkild	0.5	
	Domain	0.5	
	MacDonald	0.5	
	La Salle	0.5	
	Oak Bluff	0.5	
	Sanford	0.5	
	Starbuck	0.5	3.5
*Morris (R.M.)	Lowe Farm	0.5	
	Morris	0.5	
	Rosenort	0.5	1.5
Pinawa (L.G.D.)	Pinawa	2	2
Piney (L.G.D.)	Piney	1	
	South Junction	1	
	Sprague	1	
	Vassar	1	4
Portage la Prairie (R.M.)	Portage la Prairie	7	
	St. Ambroise	1	8
Ritchot (R.M.)	Ile des Chenes	1	
	St. Adolphe	1	
	Ste. Agathe	1	3

*Half Supply Counted.

TABLE 65 - Continued

Natural Region R.M. or L.G.D.	Community	Number Of Rinks	R.M.or L.G.D. Total
Winnipeg (Cont'd)			
Rockwood (R.M.)	Balmoral	1	
	Grosse Isle	1	
	Komarno	1	
	Teulon	1	4
Rosser (R.M.)	Rosser	1	1
St. Andrews (R.M.)	Clandeboye	1	
	Lockport	1	
	Matlock	1	
	Netley	1	
	Selkirk	2	
	St. Andrews	1	
	Winnipeg Beach	2	9
Ste. Anne (R.M.)	Richer	1	1
St. Clements (R.M.)	East Selkirk	1	
	Grand Marais	1	2
St. Francois Xavier (R.M.)	St. Francois Xavier	1	1
St. Laurent (R.M.)	Oak Point	1	
	St. Laurent	1	2
Springfield (R.M.)	Anola	1	
	Dugald	1	
	Oakbank	1	
	Ostenfeld	1	4
*Stuartburn (R.M.)	Sundown	0.5	
	Vita	0.5	1
Tache (R.M.)	Landmark	3	3
Whitemouth (R.M.)	Seven Sisters Falls	1	
	Whitemouth	1	2
Winnipeg City	Winnipeg	309	309
Winnipeg Unorganized	Bissett	1	
	Fort Alexander	1	
	Manigotagan	1	
	Pointe du Bois	1	4
Woodlands (R.M.)	Grosse Isle	1	
	Warren	1	2
Region Total:			383.5

*Half Supply Counted.

TABLE 65 - Continued

Natural Region R.M. or L.G.D.	Community	Number Of Rinks	R.M.or L.G.D. Total
Winkler			
*De Salaberry (RM)	Otterburne	1	
	St. Malo	1	2
*Dufferin (R.M.)	Carman	0.5	0.5
Franklin (R.M.)	Arnaud	1	
	Roseau River	1	
	Tolstoi	1	3
*Grey (R.M.)	Haywood	0.5	0.5
Lorne (R.M.)	St. Alphonse	1	
	Somerset	1	2
*MacDonald	Brunkild	0.5	
	Domain	0.5	
	MacDonald	0.5	
	La Salle	0.5	
	Oak Bluff	0.5	
	Sanford	0.5	
	Starbuck	0.5	3.5
Montcalm (R.M.)	St. Joseph	1	1
*Morris (R.M.)	Lowe Farm	0.5	
	Morris	0.5	
	Rosenort	0.5	1.5
Rhineland (R.M.)	Gnadenthal	1	
	Gretna	3	
	Plum Coulee	3	
	Rosenfeld	3	
	Rosengort	1	
	Schoenwiese	1	
	Sommerfeld	1	13
South Norfold (RM)	Notre Dame de Loudes	1	1
Stanley (R.M.)	Blumenfeld	1	
	Friedensruh	1	
	Schanzenfeld	1	
	Winkler	1	4
*Stuartburn (L.G.D.)	Sundown	0.5	
	Vita	0.5	1
Victoria (R.M.)	Cypress River	1	1
Region Total:			34.5

*Half Supply Counted.

TABLE 65 - Continued

Natural Region R.M. or L.G.D.	Community	Number Of Rinks	R.M.or L.G.D. Total
Brandon			
Cornwallis (R.M.)	Brandon	19	19
Edward (R.M.)	Lyleton	1	
	Pierson	1	2
*Glenella (R.M.)	Souris	0.5	0.5
Harrison (R.M.)	Newdale	1	1
Langford (R.M.)	Neepawa	1	1
*Lansdowne (R.M.)	Arden	0.5	0.5
Minto (R.M.)	Clanwilliam	1	1
Morton (R.M.)	Boissevain	2	2
*Park (L.G.D.)	Onanole	0.5	
	San Clara	0.5	1
Rosedale (R.M.)	Riding Mountain	1	1
*Rossburn (R.M.)	Vista	0.5	0.5
*Shoal Lake (R.M.)	Oakburn	0.5	0.5
South Cypress (RM)	Shilo	4	4
*Westbourne (R.M.)	Westbourne	0.5	0.5
Region Total:			34.5
Dauphin			
Alonsa (L.G.D.)	Alonsa	1	
	Amaranth	1	
	Eddystone	1	3
Boulton (R.M.)	Shell Valley	1	1
Dauphin (R.M.)	Dauphin	3	
	Sifton	1	4
Ethelbert (R.M.)	Ethelbert	1	
	Garland	1	2
*Glenella (R.M.)	Souris	0.5	0.5
*Lansdowne (R.M.)	Arden	0.5	0.5
Lawrence (R.M.)	Rorketon	2	2
Mountain (L.G.D.)	Birch River	1	
	Camperville	2	

*Half Supply Counted.

TABLE 65 - Continued

Natural Region R.M. or L.G.D.	Community	Number Of Rinks	R.M.or L.G.D. Total
Dauphin (Cont'd)			
	Cowan	1	
	Duck Bay	1	
	Mafeking	1	
	Pine River	2	8
Ochre River (R.M.)	Makinak	1	
	Ochre River	1	2
*Park (L.G.D.)	Onanole	0.5	
	San Clara	0.5	1
*Rossburn (R.M.)	Vista	0.5	0.5
Ste. Rose (R.M.)	Laurier	1	1
Shell River (R.M.)	Roblin	1	1
*Shoal Lake (R.M.)	Oakburn	0.5	0.5
*Westbourne (R.M.)	Westbourne	0.5	0.5
Region Total:			27.5
Interlake			
*Fisher (L.G.D.)	Hodgson	1	1
Grahamdale (L.G.D.)	Gypsumville	1	
	Moosehorn	1	2
Grand Rapids (LGD)	Grand Rapids	2	2
Interlake Unorganized	Matheson Island	1	1
Region Total:			6.0
The Pas			
Consol (L.G.D.)	The Pas	2	2
Snow Lake (L.G.D.)	Snow Lake	1	1
The Pas Unorganized	Cranberry Portage	1	
	Flin Flon	14	15
Region Total:			18.0
Northern			
Mystery Lake (LGD)	Thompson	8	8

*Half Supply Counted.

TABLE 65 - Continued

Natural Region R.M. or L.G.D.	Community	Number Of Rinks	R.M.or L.G.D. Total
Northern (Cont'd)			
Northern Unorganized	Pikwitonei	1	
	Thicket Portage	1	
	Wabowden	1	
Region Total:			3
			11.0
Provincial Total:			
			515.0

Source: Manitoba. Department of Economic Development and Tourism. 1971. "Facilities Inventory". (Computer printout). Winnipeg: Manitoba Bureau of Statistics.

: Winnipeg. Parks and Recreation Department. 1978. "Inventory and Analysis Sheets and Summary Sheets". (Unpublished data sheets). Winnipeg: Parks and Recreation Department.

TABLE 66

INVENTORY

OUTDOOR SKATING AREAS BY NATURAL REGIONS
(TOTALS)

Natural Regions	Number of Rinks
Winnipeg	383.5
Winkler	34.5
Brandon	34.5
Dauphin	27.5
Interlake	6.0
The Pas	18.0
Northern	11.0
Provincial Totals	515.0

Source: Table 65 .

TABLE 67

INVENTORY

DESIGNATED SNOWMOBILE TRAILS BY NATURAL REGIONS

	Total Length of Trails (KM)	
Brandon Region		
Spruce Woods Provincial Park	130	
Turtle Mountain Provincial Park	113	
Riding Mountain National Park (1/2)	45	
Region Total		288
Dauphin Region		
Duck Mountain Provincial Park	29	
Riding Mountain National Park (1/2)	90	
Region Total		119
Interlake Region		
Hecla Provincial Park	58	
Region Total		58
Northern Region		
Paint Lake Provincial Recreation Park	0	
Region Total		0
The Pas Region		
Clearwater Lake Provincial Park	35	
Region Total		35
Winkler Region		
Region Total		0

(Table 67 - Continued)

TABLE 67 - Continued

Winnipeg Region	Total Length of Trails (KM)
Birds Hill Provincial Park	31
Grand Beach Provincial Park	41
Sandilands Provincial Forest	82
Whiteshell Provincial Park	177
Regional Total	477
Provincial Rural Total	932

Source: Manitoba. Department of Mines, Natural Resources and the Environment. Parks Branch. 1979. "Manitoba Trails Guide". (Unpublished manuscript compiled by W. M. Nanka, April 1976, updated by F. A. Merkl, April 1979). Winnipeg: Parks Branch.

: Manitoba. Department of Tourism, Recreation and Cultural Affairs. Tourist Branch. 1979. 1979-1980 Manitoba Vacation Guide. Winnipeg: Queen's Printer.

Provincial Recreation Park in the Northern region which is expected to be completed for the winter of 1980-81.

(22) Trail Biking.—As far as could be ascertained, there are no designated trail bike trails in the province. There may be trails which are used extensively but they are usually made or laid out by the users on private land or on public land where no objections are raised.

(23) Cross-country Biking.—Cross-country biking does not require trails as such but rather areas of land which have varying topography and landforms. There are no areas which are designated as cross-country biking areas except for one or two moto-cross tracks.

(24) Off-Road Four Wheel Driving.—As with cross-country biking, off-road four wheel driving also requires areas of the same type of land. There may be areas where participants gather but they are not designated areas and are usually known only by regular participants.

(25) Golfing.—There are in the province, a variety of golf courses. There are nine and eighteen hole golf courses, some with sand greens, some with grass greens. The urban portion (city of Winnipeg) has both nine and eighteen hole courses but all are grass greens (Table 68). The rural portion of the province has both sand and grass greens. Twenty-eight percent of the courses are sand. The rural sector has 75.6% of the total number of golf courses in the province but the proportion of these courses having eighteen holes as opposed to nine is only 13.2% (Table 69). Of the urban courses, 59.1% are eighteen hole courses, the rural courses are 10.9% longer.

The Winnipeg region contains 52.8% of the total number of grass green golf courses in the province and 41.7% of the total, including sand greens (Table 70). The Brandon region is second with 33.3% of the

GOLF COURSES BY NATURAL REGIONS

Natural Region R.M. or L.G.D.	Location of Course	Number of Holes	Length Of Course (M)	Greens S - Sand G - Grass
Winnipeg				
Alexander (L.G.D.)	Pine Falls	9	2,744	G
Brokenhead (R.M.)	Beausejour	9	2,469	G
*Coldwell (R.M.)	Lundar	4.5	1,404	G
*Dufferin (R.M.)	Carman	4.5	1,255	G
Gimli (R.M.)	Arnes	9	2,835	G
	Gimli	9	2,868	G
	Sandy Hook	9	2,767	G
Hanover (R.M.)	Steinbach	9	2,413	G
*Morris (R.M.)	Morris	4.5	1,314	G
Pinawa (L.G.D.)	Pinawa	9	5,344	G
Portage la Prairie (R.M.)	Portage la Prairie	9	2,986	G
Rockwood (R.M.)	Teulon	9	2,908	G
Rosser (R.M.)	Rosser	18	5,774	G
St. Andrews (R.M.)	Selkirk	18	5,578	G
	Winnipeg Beach	9	2,505	G
Ste. Anne (R.M.)	Ste. Anne	18	4,980	G
Winnipeg City	Assiniboine	9	2,819	G
	Breezy Bend	18	6,116	G
	Charleswood	9	2,765	G
	Crescent Drive	9	1,225	G
	Elmhurst	18	6,058	G

*Half Supply Counted

TABLE 68 - Continued

Natural Region R.M. or L.G.D.	Location of Course	Number of Holes	Length Of Course (M)	Greens S - Sand G - Grass
Winnipeg (Con't)				
	Glendale	18	6,309	G
	John Blumberg	18	5,376	G
	John Blumberg	9	2,369	G
	Kildonan Park	18	5,086	G
	Niakwa	18	5,756	G
	Pine Ridge	18	6,009	G
	Rossmere	18	5,750	G
	St. Boniface	18	5,729	G
	St. Charles	9	2,847	G
	St. Charles	9	2,799	G
	St. Charles	9	2,772	G
	Southwood	18	5,527	G
	Transcona	18	5,455	G
	Tuxedo	18	3,418	G
	Wildwood	9	2,886	G
	Windsor Park	18	4,935	G
	Winnipeg Canoe Club	9	2,560	G
Winnipeg Unorganized	Falcon Lake	18	6,419	G
Region Total:		490.5	153,143	37.5G 0.0S
Winkler				
*Dufferin (R.M.)	Carman	4.5	1,255	G
Louise (R.M.)	Pilot Mound	9	2,670	G
*Morris (R.M.)	Morris	4.5	1,314	G
Pembina (R.M.)	Manitou	9	2,515	G

*Half Supply Counted

TABLE 38 - Continued

Natural Region R.M. or L.G.D.	Location of Course	Number of Holes	Length Of Course (M)	Greens S - Sand G - Grass
Winkler (Con't)				
Rhineland (R.M.)	Gretna	9	2,426	G
*Roblin (R.M.)	Cartwright	4.5	2,103	S
	Shell River	4.5	2,513	S
Roland (R.M.)	Roland	9	2,349	S
South Norfolk (R.M.)	Treherne	9	2,853	G
Stanley (R.M.)	Morden	9	2,451	G
	Winkler	9	2,751	G
Region Total:		81.0	22,892	7G 2S
Brandon				
Arthur	Melita	9	2,720	G
*Birtle	Birtle	4.5	969	S
Brenda (R.M.)	Waskada	9	1,445	S
Cameron (R.M.)	Hartney	9	2,104	S
Cornwallis (R.M.)	Brandon	18	5,656	G
	Brandon	9	1,390	G
Glenwood (R.M.)	Brandon	18	5,852	G
Hamiota	Souris	9	2,870	G
Harrison (R.M.)	Hamiota	9	2,140	S
Langford (R.M.)	Sandy Lake	9	2,638	G
	Neepawa	9	2,963	G

*Half Supply Counted

TABLE 68 - Continued

Natural Region R.M. or L.G.D.	Location of Course	Number of Holes	Length Of Course (M)	Greens S - Sand G - Grass
Brandon (Con't)				
Miniota (R.M.)	Miniota	9	1,618	S
Mortan (R.M.)	Boissevain	9	2,469	G
North Cypress (R.M.)	Carberry	9	1,788	S
	Shilo	18	5,622	G
Odanah (R.M.)	Minnedosa	9	2,607	G
*Park (L.G.D.)	Elk Horn	4.5	686	G
	Wasagaming	9	2,775	G
Pipestone (R.M.)	Reston	9	3,365	S
*Roblin (R.M.)	Cartwright	4.5	2,103	S
	Shell River	4.5	2,515	S
*Rossburn (R.M.)	Rossburn	4.5	1,052	S
*Russell (R.M.)	Binscarth	4.5	634	S
	Russell	4.5	1,385	G
Saskatchewan (R.M.)	Rapid City	9	1,558	S
*Shoal Lake (R.M.)	Shoal Lake	4.5	1,385	G
Syton (R.M.)	Oak Lake	9	1,783	S
South Cypress (R.M.)	Glenboro	9	2,701	G
Strathcona (R.M.)	Belmont	9	2,519	S
Turtle Mountain (R.M.)	Killarney	9	2,624	G
Wallace (R.M.)	Elkhorn	9	2,313	S
	Virden	9	2,633	G

*Half Supply Counted

TABLE 68 - Continued

Natural Region R.M. or L.G.D.	Location of Course	Number of Holes	Length Of Course (M)	Greens S - Sand G - Grass
Brandon (Con't)				
*Westbourne (R.M.)	Gladstone	4.5	1,319	S
Winchester (R.M.)	Deloraine	9	2,356	G
	Holiday Hills	9	1,527	S
Region Total:		301.5	79,974	17.5G 12.5S
Dauphin				
*Birtle (R.M.)	Birtle	4.5	969	S
Dauphin (R.M.)	Dauphin	9	2,974	G
Gilbert Plains (R.M.)	Gilbert Plains	9	2,853	G
Massey River	Winnipegosis	9	1,594	S
*Park (L.G.D.)	Elk Horn	4.5	686	G
	Wasagaming	9	2,775	G
*Rossburn (R.M.)	Rossburn	4.5	1,052	S
*Russell (R.M.)	Binscarth	4.5	634	S
	Russell	4.5	1,385	G
*Shoal Lake (R.M.)	Shoal Lake	4.5	1,385	G
Swan River (R.M.)	Swan River	9	2,880	G
*Westbourne (R.M.)	Gladstone	9	2,639	S
Region Total:		76.5	20,506	4.5G 3.5S

*Half Supply Counted

TABLE 68 - Continued

Natural Region R.M. or L.G.D.	Location of Course	Number of Holes	Length Of Course (M)	Greens S - Sand G - Grass
Interlake				
*Coldwell (R.M.)	Lundar	4.5	1,404	G
Interlake Unorganized	Hecla Island	18	6,021	G
Siglues (R.M.)	Ashern	9	2,789	G
Region Total:		31.5	10,214	2.5G 0.0S
The Pas				
Consol (L.G.D.)	The Pas	9	2,767	S
The Pas Unorganized	Flin Flon	9	2,738	G
Region Total:		18	5,505	1.0G 1.0S
Northern				
Mystery Lake (L.G.D.)	Thompson	9	2,877	G
Region Total:		9	2,877	1.0G 0.0S

*Half Supply Counted

TABLE 68 - Continued

Natural Region R.M. or L.G.D.	Location of Course	Number of Holes	Length of Course (M)	Greens S - Sand G - Grass
Provincial Totals		1,008	295,111	71G 19S

Source: Manitoba. Department of Economic Development and Tourism. 1971. "Facilities Inventory". (Computer Printout). Winnipeg: Manitoba Bureau of Statistics.

: Manitoba. Department of Tourism, Recreation and Cultural Affairs. Tourist Branch. 1979. 1979-1980 Manitoba Vacation Guide. Winnipeg: Queen's Printer.

: Updated as described in the text.

TABLE 69

INVENTORY

GOLF COURSES-PROVINCIAL TOTALS

	Number of Courses	Total Metres	Total Number of Holes
9 Hole Courses			
Rural	59	147,097	531
Urban	9	23,044	81
18 Hole Courses			
Rural	9	56,452	162
Urban	13	73,518	234
Provincial Totals	90	295,111	1,008

Source: Table 68.

total supply of which 58.3% has grass greens. The Pas and Northern regions each have one golf course, an eighteen hole course and a nine hole course respectively. Of the total number of holes, the Winnipeg and Brandon regions have 48.6% and 29.9% of the provincial total respectively.

(26) Tennis.—There are basically two types of outdoor tennis courts in the province. They differ by the type of playing surface. They are either paved (asphalt) or shale (clay) surfaces (Table 72). As can be seen from Table 71 there are no shale tennis courts in the city of Winnipeg. They are all paved. The rural sector has 17.2% of the total number of tennis courts surfaced with shale. The urban sector's paved portion represents 62.2% of the provincial total.

The Winnipeg region has three-quarters of the total number of the province's tennis courts (Table 73). The Brandon region is second to the Winnipeg region with almost fifteen percent of the total number of tennis courts leaving the remaining regions with just 10%.

(27) Cottaging.—Cottaging at first glance is not an outdoor recreational activity but it does initiate many of the activities, i.e. power boating, water skiing, fishing, walking, swimming, sailing, canoeing, etc. It is a base from which many outdoor activities stem. There are, in the province, over 18,000 cottages (Table 74).

The Winnipeg region has by far the most cottages. Just over three-quarters of the inventory of cottages in the province are located within the Winnipeg region (Table 75). The majority of that inventory stems from cottages located in the Whiteshell area (26.3%) and around the southern portion of Lake Winnipeg (53.0%). The Brandon region is second to the Winnipeg region with only 9.0% of the supply. The Pas,

TABLE 70

INVENTORY

GOLF COURSES BY NATURAL REGIONS
(TOTALS)

Natural Regions	Total Number of Holes	Total Length of Courses in Metres	Number of Courses	
			With Grass Greens	With Sand Greens
Winnipeg	490.5	153,143	37.5	-
Winkler	81.0	22,892	7.0	2.0
Brandon	301.5	79,974	17.5	12.5
Dauphin	76.5	20,506	4.5	3.5
Interlake	31.5	10,214	2.5	-
The Pas	18.0	5,505	1.0	1.0
Northern	9.0	2,877	1.0	-
Provincial Totals	1,008	295,111	71	19

Source: Table 68 .

TABLE 71

INVENTORY

OUTDOOR TENNIS COURTS-PROVINCIAL TOTALS

Shale	-	Rural	27
		Urban	0
Paved	-	Rural	130
		Urban	258
Provincial Total			415

Source: Table 72 .

TABLE 72

OUTDOOR TENNIS COURTS BY NATURAL REGIONS

Natural Regions R.M. or L.G.D.	Location	Number of Courts	
		Paved	Shale
Winnipeg			
*Bifrost (R.M.)	Arborg	1	
*Dufferin (R.M.)	Carman	1.5	
Hanover (R.M.)	Grunthal	1	
Lac du Bonnet (R.M.)	Lac du Bonnet	1	
Pinawa (L.G.D.)	Pinawa		3
Portage la Prairie (L.G.D.)	Portage la Prairie		4
Rockwood (R.M.)	Stonewall	2	
	Teulon	2	
St. Andrews (R.M.)	Selkirk	7	2
	Winnipeg Beach		3
St. Clements (R.M.)	Grand Beach	4	
Tache (R.M.)	Lorette	1	
Victoria Beach (R.M.)	Victoria Beach		3
Winnipeg City	Alex Bridge Park	4	
	Alexander Ross School	3	
	Arthur Day Jr. High	2	
	Birnie Wolfe Community School	4	
	Boyd Park Playground	2	
	Broadway Optimit C.C.	3	
	Bronz Park C.C.	4	
	Brookland C.C.	1	
	Central C.C.	3	
	Chalmers C.C.	3	
	Charles McFadyen Memorial Park	2	
	Clifton C.C.	2	
	Crescentwood C.C.	6	
	Crestview Village	3	
	Dakota Collegiate	4	
	Deer Lodge Tennis Club	4	
	Earl Grey C.C.	1	
	East Elmwood	4	
	Elwick Recreation Site	4	
	Eric Coy Centennial Rec. Centre	2	
	Fort Garry Lions Memorial Park	2	

*Half Supply Counted.

TABLE 72 - Continued

Natural Regions R.M. or L.G.D.	Location	Number of Courts	
		Paved	Shale
Winnipeg (Cont'd)			
	Glenwood C.C.	4	
	Greendell C.C.	2	
	Isaac Brock C.C.	2	
	J.H. Bruns Collegiate	4	
	Jefferson Jr. High	8	
	John Taylor Collegiate	3	
	Kelvin C.C.	3	
	Kenaston Street Property	4	
	Kildonan East Regional	6	
	Killarney Avenue Courts	3	
	Kirkfield-Westwood C.C.	4	
	Lord Roberts C.C.	2	
	Lord Selkirk Park	1	
	MacFadyen Playground	2	
	Margaret Park C.C.	2	
	Mayfair Park	4	
	Miles MacDonnell School	4	
	Northwood C.C.	2	
	Norwood C.C.	4	
	Notre Dame Recreation Centre	4	
	Old Exhibition Grounds	5	
	Orioles C.C.	1	
	Oxford Heights C.C.	3	
	Pembina Trail C.C.	2	
	Pierre Radisson Collegiate	4	
	Phoenix C.C.	1	
	Pritchard Park Playground	2	
	Ralph Brown School	2	
	Red River C.C.	1	
	Riel Park	4	
	River East Collegiate	5	
	River East Recreation Centre	4	
	River Heights C.C.	4	
	River West Recreation Grounds	4	
	Riverview C.C.	4	
	Roblin Park C.C.	2	
	St. Germain Park	2	
	St. John's C.C.	3	
	Sansome C.C.	3	
	Sargent Park Recreation Complex	10	
	Sinclair Park	2	
	Sir John Franklin Park C.C.	3	

*Half Supply Counted.

TABLE 72 - Continued

Natural Regions R.M. or L.G.D.	Location	Number of Courts	
		Paved	Shale
Winnipeg (Cont'd)			
	Sturgeon Creek C.C.	4	
	Sturgeon Creek Regional Secondary School	5	
	Transcona Collegiate	3	
	Transcona Crocus Park	3	
	Tuxedo Recreation Centre	6	
	Tyndall Park School	3	
	Varsity View C.C.	2	
	Victoria C.C.	2	
	Vimy Arena Courts	2	
	West End Memorial C.C.	2	
	West Kildonan Memorial C.C.	1	
	Westdale Jr. High	3	
	Weston Memorial C.C.	2	
	Westridge C.C.	2	
	Wildwood C.C.	4	
	Windsor Park Collegiate	4	
	Wolseley Recreation Site	2	
	Woodhaven C.C.	3	
Winnipeg Unorganized	Big Whiteshell Lake	2	
	Brereton Lake	2	
	Falcon Lake	6	
	Nutimik Lake	2	
	Pointe du Bois		1
	Seven Sisters Falls		2
	Toniata Beach	1	
	West Hawk Lake	2	
Region Total:		293.5	18.0
Winkler			
*Dufferin (R.M.)	Carman	1.5	
Lorne (R.M.)	Notre Dame de Lourdes	1	
Rhineland (R.M.)	Altona	1	
	Blumenort		1
Stanley (R.M.)	Morden	2	
	Winkler	3	
Region Total:		8.5	1.0

*Half Supply Counted.

TABLE 72 - Continued

Natural Regions R.M. or L.G.D.	Location	Number of Courts	
		Paved	Shale
Brandon			
Arthur (R.M.)	Melita	3	
*Birtle (R.M.)	Birtle	1	
Cameron (R.M.)	Hartney	2	
Cornwallis (R.M.)	Brandon	22	3
*Glenella (R.M.)	Glenella	0.5	
Glenwood (R.M.)	Souris	2	
Hamiota	Hamiota	2	
Harrison (R.M.)	Kleefield	1	
Langford (R.M.)	Neepawa	2	
North Norfolk (R.M.)	MacGregor	2	
Odanah (R.M.)	Minnedosa	2	
*Park (L.G.D.)	Riding Mountain National Park	3	
Rosedale (R.M.)	Kelwood	2	
*Russell (R.M.)	Russell	1.5	
Saskatchewan (R.M.)	Rapid City		1
*Shoal Lake (R.M.)	Shoal Lake		1
Strathcliar (R.M.)	Strathclair	2	
Turtle Mountain (R.M.)	Killarney	1	
Wallace (R.M.)	Virden	2	
*Westbourne (R.M.)	Gladstone	1	
Winchester (R.M.)	Deloraine	1	
Woodworth (R.M.)	Kenton		1
Region Total:		55.0	6.0
Dauphin			
*Birtle (R.M.)	Birtle	1	
Dauphin (R.M.)	Dauphin	2	

*Half Supply Counted.

TABLE 72 - Continued

Natural Regions R.M. or L.G.D.	Location	Number of Courts	
		Paved	Shale
Dauphin (Cont'd)			
*Glenella (R.M.)	Glenella	0.5	
McCreary (R.M.)	Oak Lake	2	
	McCreary	2	
*Park (L.G.D.)	Riding Mountain National Park	3	
*Russell (R.M.)	Russell	3	
Ste. Rose (R.M.)	Ste. Rose du Lac	2	
*Shoal Lake (R.M.)	Shoal Lake		2
Swan River (R.M.)	Swan River	3	
*Westbourne (R.M.)	Gladstone	1	
Region Total:		18.0	1.0
Interlake			
*Bifrost (R.M.)	Arborg	1	
Interlake Unorganized	Hecla Island	2	
Siglunes (R.M.)	Ashern	1	
Region Total:		4.0	0.0
The Pas			
Consol (L.G.D.)	The Pas	1	1
Snow Lake (L.G.D.)	Snow Lake	2	
Region Total:		3.0	1.0
Northern			
Mystery Lake(L.G.D)	Thompson	6	
Region Total:		6.0	0.0
Provincial Total:		388.0	27.0

*Half Supply Counted.

Sources: Manitoba. Department of Economic Development and Tourism. 1971. "Facilities Inventory". (Computer printout). Winnipeg: Manitoba Bureau of Statistics.

: Manitoba. Department of Tourism, Recreation and Cultural Affairs. Tourist Branch. 1979. 1979-1980 Manitoba Vacation Guide. Winnipeg: Queen's Printer.

TABLE 73

INVENTORY

OUTDOOR TENNIS COURTS BY NATURAL REGIONS
(TOTALS)

Natural Regions	Number of Courts		
	Paved	Shale	Total
Winnipeg	293.5	18.0	311.5
Winkler	8.5	1.0	9.5
Brandon	55.0	6.0	61.0
Dauphin	18.0	1.0	19.0
Interlake	4.0	-	4.0
The Pas	3.0	1.0	4.0
Northern	6.0	-	6.0
Provincial Totals	388.0	27.0	415.0

Source: Table 72.

TABLE 74

COTTAGES BY NATURAL REGIONS

Natural Region R.M. or L.G.D.	Location	Number of Cottages	Total for R.M. or L.G.D.
Winnipeg			
Alexander (L.G.D.)	Bird River	32	
	Lac Du Bonnet	204	
	Lake Winnipeg	925	
	Lee River	20	
	Pinawa Lake	99	
	Winnipeg River	194	1,474
*Bifrost (R.M.)	Lake Winnipeg	66	66
Brokenhead (R.M.)	Brokenhead River	39	39
*Coldwell (R.M.)	Lake Manitoba	27	27
*De Salaberry (R.M.)	Lake St. Malo	55	
	Rat River	1	56
Gimli (R.M.)	Lake Winnipeg	1,776	1,776
Lac du Bonnet (R.M.)	Lac du Bonnet	64	
	Lee River	430	
	Winnipeg River	223	717
Pinawa (L.G.D.)	Winnipeg River	14	14
Portage la Prairie (R.M.)	Lake Manitoba	173	173
Ritchot (R.M.)	Red River	2	2
Rockwood (R.M.)	Norris Lake	19	19
St. Andrews (R.M.)	Dunnottar	878	
	Lake Winnipeg	80	
	Muckle Creek	17	
	Netley Creek	259	

*Half Supply Counted.

TABLE 74 - Continued

Natural Region R.M. or L.G.D.	Location	Number of Cottages	Total for R.M. or L.G.D.
Winnipeg (Cont'd)			
	Red River	74	
	Wavey Creek	3	
	Winnipeg Beach	1,171	2,482
St. Clements (R.M.)	Grand Beach	528	
	Gull Lake	330	
	Lake Winnipeg	935	
	Parisien Lake	1	
	Red River	12	1,806
St. Francois Xavier (R.M.)	Assiniboine River	2	2
St. Laurent (R.M.)	Lake Manitoba	323	323
Springfield (R.M.)	Oasis Lake	100	100
*Stuartburn (R.M.)	Roseau River	1	1
Tache (R.M.)	Seine River	4	4
Victoria Beach (R.M.)	Victoria Beach	905	905
Whitemouth (R.M.)	Bog River	5	
	Whitemouth River	7	
	Winnipeg River	3	15
Winnipeg Unorganized	Barren Lake	23	
	Barrier Bay	59	
	Bird Lake	123	
	Bird River	34	
	Beresford Lake	9	
	Betula Lake	166	
	Brereton Lake	364	

*Half Supply Counted.

TABLE 74 - Continued

Natural Region R.M. or L.G.D.	Location	Number of Cottages	Total for R.M. or L.G.D.
Winnipeg (Cont'd)			
	Buffalo Point	77	
	Caddy Lake	146	
	Crow Duck Lake	1	
	Davidson Lake	2	
	Dorothy Lake	75	
	Eaglenest Lake	2	
	Elbow Lake	1	
	Eleanor Lake	54	
	Falcon Lake	794	
	Family Lake	1	
	Florence Lake	31	
	Frenchmans Lake	1	
	Garner Lake	2	
	Gem Lake	4	
	George Lake	4	
	Green Lake	3	
	Happy Lake	3	
	Hunt Lake	8	
	Jessica Lake	103	
	Lake Winnipeg	1	
	Long Lake	3	
	Manigotagan River	11	
	Margaret Lake	2	
	McGregor Lake	1	
	Moose Lake	91	
	Nason Lake	1	
	Nora Lake	20	
	North Cross Lake	1	
	North Cypress Lake	1	
	Nutimik Lake	159	

*Half Supply Counted.

TABLE 74 - Continued

Natural Region R.M. or L.G.D.	Location	Number of Cottages	Total for R.M. or L.G.D.
Winnipeg (Cont'd)			
	Otter Falls	82	
	Red Rock Lake	68	
	Rice Lake	18	
	Sharpe Lake	8	
	Snake Lake	1	
	Star Lake	142	
	Wallace Lake	70	
	Wanipigow Lake	49	
	West Hawk Lake	389	
	White Lake	85	
	Whiteshell Lake	184	
	Winnipeg River	108	
Woodlands (R.M.)	Lake Manitoba	44	3,585
Region Total:			44
Winkler			13,629
*Argyle (R.M.)	Rock Lake	29	29
*De Salaberry (R.M.)	Lake St. Malo	54	
	Rat River	1	55
Lorne (R.M.)	Lake Seven	9	9
*Roblin (R.M.)	Rock Lake	21	21
*Stuartburn (L.G.D.)	Roseau River	1	1
Region Total:			115

*Half Supply Counted.

TABLE 74 - Continued

Natural Region R.M. or L.G.D.	Location	Number of Cottages	Total for R.M. or L.G.D.
Brandon			
*Argyle (R.M.)	Rock Lake	30	30
*Clanwilliam (R.M.)	Gertrude Lake	34	
	Kerr Lake	7	
	Otter Lake	31	72
Daly (R.M.)	Lake Wahtopanah	30	30
Harrison (R.M.)	Sandy Lake	248	248
Langford (R.M.)	Lake Irwin	15	15
Morton (R.M.)	Bower Lake	5	
	Max Lake	11	
	Sharpe Lake	15	31
Odanah (R.M.)	Lake Minnedosa	139	139
*Park (L.G.D.)	Clear Lake	235	
	Octopus Lake	26	261
Riverside (R.M.)	Pelican Lake	90	90
*Roblin (R.M.)	Rock Lake	21	21
*Rossburn (R.M.)	Rossman Lake	24	24
Sifton (R.M.)	Oak Lake	306	306
*Silver Creek (R.M.)	Fish Lake	27	27
Strathcona	North Thomas Lake	72	
	Pelican Lake	1	
	Salt Lake	23	96
Turtle Mountain (R.M.)	Lake Killarney	80	
	Pelican Lake	20	100

*Half Supply Counted.

TABLE 74 - Continued

Natural Region R.M. or L.G.D.	Location	Number of Cottages	Total for R.M. or L.G.D.
Brandon (Cont'd)			
Winchester (R.M.)	Dropmore Lake		
	Hasselfield Lake	11	
	Metigoshe Lake	31	
Region Total:		101	143
Dauphin			1,633
Alonsa (L.G.D.)	Lake Manitoba		
*Clanwilliam	Gertrude Lake	4	4
	Kerr Lake	34	
	Otter Lake	7	
Dauphin Unorganized	Childs Lake	31	72
	East Blue Lake	6	
	Glad Lake	12	
	Lake Manitoba	12	
	Lake Winnipegosis	2	
	Red Deer River	5	
	Singush Lake	1	
	Wellman Lake	15	
	West Blue Lake	58	
Mountain (L.G.D.)	Lake Winnipegosis	1	112
Ochre River (R.M.)	Dauphin Lake	1	1
*Park (L.G.D.)	Clear Lake	236	236
	Octopus Lake	234	
*Rossburn (R.M.)	Rossmore Lake	26	260
*Silver Creek (R.M.)	Fish Lake	24	24
Region Total:		26	26
			234

*Half Supply Counted.

TABLE 77 - continued

Natural Region R.M. or L.G.D.	Location	Number of Cottages	Total for R.M. or L.G.D.
Interlake			
*Bifrost (R.M.)	Lake Winnipeg	66	66
*Coldwell (R.M.)	Lake Manitoba	27	27
Grahamdale (L.G.D.)	Lake Manitoba	36	36
Grand Rapids (L.G.D.)	Cross Bay	13	13
Interlake Unorganized	Beaver Creek	1	
	Benyk's Point, Lake Manitoba	33	
	Hecla Provincial Park	2	
	Lake Manitoba	98	
	Lake St. Andrews	9	
	Lake St. George	19	
	Lake Winnipeg	295	
	Mantago Lake	3	
	Waterhen Lake	1	
	Waterhen River	17	
Siglunes (R.M.)	Dog Lake	1	478
	Lake Manitoba	97	
Region Total:			98
			718
The Pas			
Consol (L.G.D.)	Lake Athapapuskow	9	
	Rocky Lake	95	
The Pas Unorganized	Athapapuskow Lake	332	104
	Clearwater Lake	349	
	First Cranberry Lake	10	
	Kisseynew Lake	1	
	Manistikwan Lake	101	

*Half Supply Counted.

TABLE 74 - Continued

Natural Region R.M. or L.G.D.	Location	Number of Cottages	Total for R.M. or L.G.D.
The Pas (Cont'd)			
	Moose Lake	3	
	Otter Lake	1	
	Root Lake	1	
	Schist Lake	35	
	Tramping Lake	2	
	Wekusko Falls	38	
	Wekusko Lake	6	
	Whitefish Lake	2	
Region Total:			881
			985
Northern			
Northern Unorganized	Armstrong Lake	1	
	Baldock Lake	1	
	Big Island Creek	21	
	Berge Lake	2	
	Dafoe Lake	1	
	Duck Lake	1	
	Eardly Lake	1	
	Family Lake	1	
	Fox River	1	
	Kississing Lake	1	
	Paint Lake	126	
	Payuk Lake	7	
	Setting Lake	82	
Region Total:			246
Provincial Total:			18,061

*Half Supply Counted.

Source: Canada. Environment Canada. Prairie Provinces Water Board. 1979. "Water Oriented Recreation Within the Saskatchewan-Nelson River Basins: Manitoba". (An unpublished agency report prepared by B. Bentham). Winnipeg: Provincial Parks Branch.

TABLE 75

INVENTORY

COTTAGES BY NATURAL REGIONS
(TOTALS)

Natural Regions	Total Number of Cottages
Winnipeg	13,629
Winkler	115
Brandon	1,633
Dauphin	734
Interlake	718
The Pas	985
Northern	246
Provincial Totals	18,061

Source: Table 74.

Northern and Interlake regions have a combined total of 10.8% of the number of cottages in the province.

(28) Visiting Provincial Parks.—This section will examine the amount of parkland in the province. The more important aspect is in relation to provincial parkland but urban parkland influences to some extent the amount of demand for provincial parkland, therefore the urban parkland is also inventoried. Within the urban parkland, both school areas and park areas are included in the totals. Most schools have areas which are conducive to outdoor recreational activities and as such, influence the demand for both urban and provincial parklands.

There is in the city of Winnipeg almost three thousand hectares of parkland of which more than three-quarters is park-related and less than one-quarter school-related (Table 76). Table 77 offers a district parkland breakdown for the district totals of Table 72. Sixty-seven percent of the urban parkland which is park-related is made up of the larger size district parks. The remainder are community and neighbourhood parks. Table 78 summarizes the various levels of parkland for the different districts of the city of Winnipeg.

The rural portion of the inventory is made up of parks managed by the provincial and federal governments. There are over a million hectares of parkland under provincial jurisdiction (Table 79 and Table 80).

Table 79 lists the amount of federal and provincial parkland in hectares in each municipality by 'natural' regions. With Riding Mountain National Park there is just over 1.3 million hectares of parkland in the province, the majority of which is made up of the large natural parks (94.2%) (Table 81). The remainder is made up of the more

TABLE 76

CITY OF WINNIPEG PARKLAND (AREA)

D-District Level C-Community Level N-Neighbourhood Level	Area in Hectares		
	School	Park	Total
D-Assiniboine Park-Fort Garry	-	631.75	631.75
C-Charleswood East	-	-	-
N-Elmhurst	1.59	5.04	6.63
N-Varsity View	2.01	3.76	5.77
N-Vialoux	1.20	1.09	2.29
C-Charleswood West	5.80	34.97	40.77
N-Betsworth	2.30	5.33	7.63
N-Eric Coy	2.43	0.07	2.50
N-Ridgewood South	-	0.82	0.82
N-River West Park	1.20	3.83	5.03
N-Roblin Park	-	4.38	4.38
N-Southboine	-	1.80	1.80
N-Westdale	4.42	2.38	6.80
C-Headingley	-	-	-
N-North Headingley	-	9.68	9.68
N-South Headingley	3.86	2.31	6.17
C-North Fort Garry	8.34	12.38	20.72
N-Beaumont	2.88	4.01	6.89
N-Crescent Park	1.62	4.84	6.46
N-Maybank	3.23	3.41	6.64
N-Point Road	3.89	0.95	4.84
N-Wildwood	1.80	6.74	8.54
C-River Heights	11.63	16.85	28.48
N-Central River Heights	4.21	1.59	6.80
N-Crescentwood	0.56	0.91	1.47
N-Grant Park	2.16	-	2.16
N-J.B. Mitchell	3.53	-	3.53
N-Mathers	-	3.53	3.53
N-North River Heights	2.38	2.44	4.82
N-Rockwood	2.32	3.72	6.04
N-Sir John Franklin	3.52	6.75	10.27
N-South River Heights	2.84	3:15	5.99
N-Wellington	-	1.87	1.87
C-Tuxedo	2.75	14.47	17.22
N-Mountbatten	3.54	2.09	5.63

TABLE 76 - Continued

D-District Level C-Community Level N-Neighbourhood Level	Area in Hectares		
	School	Park	Total
N-Old Tuxedo	-	0.50	0.50
N-South Tuxedo	-	0.50	0.50
C-University	13.17	20.33	33.50
N-Agassiz	1.58	0.49	2.07
N-Fairfield Park	-	1.18	1.18
N-Fort Richmond	8.26	4.84	13.10
N-Park La Salle	1.52	1.65	3.17
N-Oak Hill Estates	-	2.31	2.31
N-St. Norbert	1.21	0.77	1.98
N-Waverly Heights	6.54	7.84	14.38
C-West University	-	-	-
N-Fort Richmond	1.61	3.79	5.40
District Totals	119.90	841.11	961.01
D-City Centre-Fort Rouge			
C-Central	-	131.92	131.92
N-Centennial	3.98	1.65	5.63
N-West Alexander	1.66	5.57	7.23
N-Weston	3.82	2.90	6.72
C-Downtown	1.25	8.39	9.64
N-Downtown	0.68	-	0.68
N-South Point Douglas	-	2.41	2.41
C-Ellice	-	0.98	0.98
N-Daniel McIntyre	16.27	2.28	18.55
N-Minto	1.90	0.31	2.21
N-Sargent Park	2.42	3.14	5.56
N-Spence	4.69	2.80	7.49
N-St. Mathews	-	0.09	0.09
C-Fort Rouge	1.52	0.98	2.50
N-Earl Grey	0.98	-	0.98
N-Ebby Wentworth	1.21	1.45	2.66
N-McMillan	-	0.16	0.16
N-River-Osborne	0.98	6.74	1.72
N-Roslyn	0.58	2.87	3.45
C-Osborne	-	0.25	0.25
N-Lord Roberts	5.73	1.27	7.00
N-Riverview	1.39	7.00	8.39
C-Wolseley	2.56	5.87	8.43
N-Memorial	1.34	2.56	3.90
N-Westminister	-	0.77	0.77
District Totals	3.07	0.60	3.67
	56.03	186.96	242.99
D-East Kildonan-Transcona			
C-Bunns Creek	-	270.15	270.15
N-River East	-	7.81	7.81
N-Springfield North	2.39	7.41	9.80
N-Valhalla	-	4.02	4.02
	-	1.04	1.04

TABLE 76 - Continued

D-District Level C-Community Level N-Neighbourhood Level	Area in Hectares		
	School	Park	Total
C-East Kildonan-Concordia	11.67	13.36	25.03
N-Springfield South	-	3.64	3.64
N-Valley Gardens	4.44	11.92	16.36
C-East Kildonan-Henderson	12.55	10.11	22.66
N-Kildonan Drive	2.48	4.39	6.87
N-Rossmere North 'A'	7.66	6.56	14.22
N-Rossmere South	2.64	0.09	2.73
C-East Transcona	6.31	12.08	18.39
N-Canterbury Park	3.64	6.70	10.34
N-Kildare Redona	2.10	7.04	9.14
C-Elmwood	10.23	2.59	12.82
N-Chalmers	2.19	12.48	14.67
N-East Elmwood	3.38	4.00	7.38
N-Munroe East	3.37	9.76	13.13
N-Munroe West	4.82	2.47	7.29
N-Talbot-Grey	2.67	2.43	5.10
N-West Elmwood	0.37	3.13	3.50
C-Transcona South	-	-	-
N-Transcona South	-	2.36	2.36
C-West Transcona	6.73	5.71	12.44
N-Kern Park	2.37	2.19	4.56
N-Lakeside Meadows	-	5.13	5.13
N-Melrose	-	1.88	1.88
N-Mission Gardens	2.34	9.27	11.61
N-Radisson	4.84	2.06	6.90
N-Victoria West	1.54	1.86	3.40
District Totals	100.73	433.64	534.37
D-Lord Selkirk-West Kildonan	-	185.90	185.90
C-North Central Sisler	9.87	9.52	19.39
N-Burrows Central	2.14	0.92	3.06
N-Dufferin	-	0.89	0.89
N-Lord Selkirk Park	1.02	1.60	2.62
N-North Point Douglas	0.96	7.22	8.18
N-Shaughnessy Park	2.80	-	2.80
N-William Whyte	2.04	0.81	2.85
C-North Central St. John's	5.63	5.46	11.09
N-Inkster Faraday	2.06	0.77	2.83
N-Mynarski	-	3.41	3.41
N-Luxton	0.97	0.41	1.38
N-Robertson	5.87	5.66	11.53
N-St. John's	3.72	3.06	6.78
C-North Main-Old Kildonan	-	-	-
N-North Main East	-	3.68	3.68
N-North Main West	0.87	1.82	2.69
C-North West Kildonan	4.79	10.93	15.72
N-Mandalay West	1.21	10.67	11.88
N-Maples	6.81	9.13	15.94
N-Templeton-Sinclair	-	4.61	4.61

TABLE 76 - Continued

D-District Level C-Community Level N-Neighbourhood Level	Area in Hectares		
	School	Park	Total
C-Stoney	6.09	15.59	21.68
N-Burrows Keewatin	3.66	4.04	7.70
N-Inkster North	-	9.40	9.40
N-Tyndall Park	1.24	16.01	17.25
C-West Kildonan	5.66	24.63	30.29
N-Garden City	6.41	5.94	12.35
N-Jefferson	5.66	1.19	6.85
N-Margaret Park	1.45	1.78	3.23
N-Seven Oaks	1.31	0.74	2.05
District Totals	82.24	345.79	428.03
D-St. Boniface-St. Vital			
C-Central St. Vital	-	240.39	240.39
N-Meadowood	4.42	5.63	10.05
N-Minnetonka	1.93	4.25	6.18
N-Riverlands	8.38	7.40	15.78
N-Vista	3.04	6.42	9.46
C-North St. Vital	2.03	1.08	3.11
N-Elm Park	3.79	11.45	15.24
N-Glenwood	1.19	2.66	3.85
N-Kingston Crescent	1.69	2.34	4.03
N-Lavalee	-	0.34	0.34
N-Norberry	4.25	-	4.25
N-Pulberry	1.21	4.31	5.52
N-St. George	3.29	2.69	5.98
N-Worthington	1.69	0.97	2.66
C-Old St. Boniface	3.15	2.81	5.95
N-Archwood	3.39	16.39	19.78
N-Central St. Boniface	1.70	1.55	3.25
N-Dufresne	3.92	0.04	3.96
N-Holden	-	2.70	2.70
N-North St. Boniface	-	1.21	1.21
N-Norwood East	0.55	1.42	1.97
N-Norwood West	1.99	2.69	4.68
C-Windsor Southdale	2.48	4.52	7.00
N-Maginot	10.36	17.36	27.72
N-Niakwa	-	1.21	1.21
N-Southdale	-	1.19	1.19
N-Windsor Park	6.20	18.93	25.13
District Total	9.47	12.51	21.98
	80.12	374.46	454.58
D-St. James-Assiniboia			
C-Central	-	163.48	163.48
N-Brooklands	-	-	-
C-St. Charles	1.86	1.72	3.58
N-Buchannan	3.85	5.92	9.77
N-Crestview	5.83	6.22	12.05
	10.04	12.77	22.81

TABLE 76 - Continued

D-District Level C-Community Level N-Neighbourhood Level	Area in Hectares		
	School	Park	Total
N-Glendale	-	1.87	1.87
N-Westwood East 'A'	2.02	5.20	7.22
N-Westwood West 'B'	11.25	6.37	17.62
C-St. James	12.58	7.71	20.29
N-Birchwood	1.78	0.95	2.73
N-Bruce Park	2.79	6.10	8.89
N-Deer Lodge	1.75	3.66	5.41
N-Jameswood	3.06	2.19	5.25
N-Kensington	-	0.09	0.09
N-King Edward	1.91	2.40	4.31
N-Silver Heights	2.97	5.81	8.78
C-Sturgeon	15.88	4.75	20.63
N-Booth	6.52	0.48	7.00
N-Heritage Park	2.64	1.87	4.51
N-Kirkfield Park	2.86	0.17	3.03
N-Woodhaven	1.28	1.14	2.42
District Totals	90.87	240.87	331.74
City Totals	529.89	2,422.83	2,952.72

Source: Winnipeg. Parks and Recreation Department. 1978. "Inventory and Analysis Sheets and Summary Sheets". (Unpublished data sheets). Winnipeg: Parks and Recreation Department.

TABLE 77

CITY OF WINNIPEG DISTRICT PARKLAND (AREA)

District	Park	Hectares	District Total
Assiniboine Park-Fort Garry			
	Assiniboine Forest	294.22	
	Assiniboine Park	152.05	
	Crescent Drive Park	13.15	
	Kings Park	37.42	
	La Barriere Park	130.30	
	Pan Am Pool	3.55	
	Park Reserves	1.06	
			631.75
City Centre-Fort Rouge			
	Bonneycastle Park	2.00	
	Brookside Cemetary	76.56	
	Churchill Drive Park	21.04	
	Civic Centre Complex	2.86	
	Fort Garry Park	0.24	
	Library Park	0.66	
	Old Market Square	0.60	
	Omand Park	4.60	
	Osborne Bridge Park	1.82	
	Osborne Plaza	1.00	
	Riverbank Parks	1.52	
	Sargent Park	7.97	
	Westview Park	11.05	
			131.92
East Kildonan-Transcona			
	Centennial Park	37.64	
	East Kildonan City Hall Park	0.05	
	Frasers Grove Park	11.74	
	Gilmore Park	0.75	
	Horse Pond	6.48	
	Maintenance Yard	0.33	
	Nairn Avenue River Lots	0.34	
	Nairn Overpass Park	6.44	
	North East Park	161.88	
	Riverbank Park	1.20	
	Rossmere Golf Course	23.67	
	Transcona Cemetary	19.63	
			270.15

TABLE 77 - Continued

District	Park	Hectares	District Total
Lord Selkirk-West Kildonan	Boat Launch	5.07	
	Historic Site and Park	0.22	
	Kildonan Golf Course	39.01	
	Kildonan Park	39.74	
	Little Mountain Park	64.75	
	Old Exhibition Grounds	13.85	
	Seven Oaks Museum	1.00	
	Woodsworth Park	22.26	
			185.90
St. Boniface-St. Vital	City Hall Grounds	1.62	
	H.L. Softly School	0.64	
	Lyndale Drive Park	8.66	
	Maple Grove Park	64.02	
	Mission Park No. 1	0.93	
	Normand Park	15.50	
	Park Reserves	22.95	
	Riverbank Park	2.46	
	Small Park	1.00	
	St. Mary's Riverbank Park	0.93	
	St. Vital Cemetery	10.95	
	St. Vital Park	46.95	
	Trans-Canada Highway Buffer	4.69	
	Whittier Park	5.06	
	Windsor Golf Course	54.03	
			240.39
St. James-Assiniboia	Centennial Pool	2.32	
	Civic Centre Pool	2.31	
	Grants Mill Park	6.35	
	John Bloomberg Golf Course	78.32	
	Legion Memorial Sports Grounds	14.32	
	Living Prairie Museum	16.19	
	Omands Creek	0.23	
	Sturgeon Creek Park	24.48	
	Sturgeon Creek Regional	8.13	
	Woodhaven Park	10.83	
			163.48
Total City of Winnipeg District Parkland		1,623.59	

Source: Winnipeg. Parks and Recreation Department. 1978. "Inventory and Analysis Sheets and Summary Sheets". (Unpublished data sheets). Winnipeg: Parks and Recreation Department.

TABLE 78

INVENTORY (URBAN)

CITY OF WINNIPEG PARKLAND (AREA)

District	Type of Parkland	Hectares*	District Total
Assiniboine Park-Fort Garry	District Parks	631.75	
	Community Parks	140.69	
	Neighbourhood Parks	188.57	961.01
City Centre-Fort Rouge	District Parks	131.92	
	Community Parks	36.74	
	Neighbourhood Parks	74.33	242.99
East Kildonan-Transcona	District Parks	270.15	
	Community Parks	99.15	
	Neighbourhood Parks	165.07	534.37
Lord Selkirk-West Kildonan	District Parks	185.90	
	Community Parks	98.17	
	Neighbourhood Parks	143.96	428.03
St. Boniface-St. Vital	District Parks	240.39	
	Community Parks	72.79	
	Neighbourhood Parks	141.40	454.58
St. James-Assiniboia	District Parks	163.48	
	Community Parks	50.69	
	Neighbourhood Parks	117.57	331.74
City of Winnipeg Total Parkland 2,952.72 hectares.			

*1 acre = 0.4047 hectares.

Source: Tables 76 and 77 .

TABLE 79

AREA OF PARKLANDS BY NATURAL REGIONS

Natural Regions R.M. or L.G.D.	Name of Park	Area In Hectares	
		Park	R.M. Total
Winnipeg			
Alexander (L.G.D.)	Jack Fish Creek Wayside Park	2	
	Pine Falls Provincial Recreation Park	13	
	Poplar Bay Provincial Recreation Park	13	
	Winnipeg River Wayside Park No. 3	2	
*Bifrost (R.M.)	Hnausa Beach Provincial Recreation Park	6	30
Cartier (R.M.)	Beaudry Provincial Park	881	6
*Coldwell (R.M.)	Lundar Beach Provincial Recreation Park	15	881
*De Salaberry (R.M.)	St. Malo Provincial Recreation Park	42	15
*Dufferin (R.M.)	Stephenfield Provincial Recreation Park	38	42
East St. Paul (R.M.)	Hyland Wayside Park	4	38
*Ericksdale (R.M.)	McEwan Memorial Wayside Park	3	4
Gimli (R.M.)	Camp Morton Provincial Recreation Park	266	3
	Stefanson Memorial Wayside Park	1	267
La Broquerie (R.M.)	Devon Wayside Park	2	2
Lac du Bonnet (R.M.)	Lac du Bonnet Trailer Village	16	
	Lee River Bridge Wayside Park	2	
	Lee River Provincial Recreation Park	24	
	Winnipeg River Wayside Park No. 1	2	
	Winnipeg River Wayside Park No. 2	2	46
Pinawa (L.G.D.)	Pinawa Wayside Park	2	2
Piney (L.G.D.)	Menisino Tower Wayside Park	2	
	Whitemouth Lake Wayside Park	2	
	Woodridge Wayside Park	2	6

*R.M. or L.G.D. lies within area of Regional overlap. Therefore only half of area counted.

TABLE 79 - Continued

Natural Regions R.M. or L.G.D.	Name of Park	Area In Hectares	
		Park	R.M. Total
Winnipeg (Cont'd)			
Portage la Prairie (R.M.)	Norquay Provincial Recreation Park	43	
	Portage East Wayside Park	2	
	St. Ambroise Provincial Recreation Park	17	
	Yellow Quill Wayside Park	3	65
Reynolds (L.G.D.)	Agassiz Wayside Park	2	
	Dawson Trail Wayside Park	4	
	Marchand Wayside Park	3	
	Pinegrove Halt Wayside Park	40	
	Pineland Nursery Wayside Park	2	
	Sawdust Pile Wayside Park	2	
	Whitemouth River Wayside Park	2	55
Ritchot (R.M.)	St. Adolphe Wayside Park	2	
	Ste. Agathe Wayside Park	2	4
Rockwood (R.M.)	Norris Lake Wayside Park	2	4
St. Andrews (R.M.)	Breezy Point Wayside Park	2	
	Clandeboye Wayside Park	2	
	Netley Creek Wayside Park	2	
	Winnipeg Beach Provincial Recreation Park	39	45
St. Clements (R.M.)	Grand Beach Provincial Park		
	Lockport Wayside Park	2	
	Patricia Beach Provincial Recreation Park	62	2,524
St. Francois Xavier (R.M.)	Meridian Wayside Park	1	
	Whitehourse Plains Wayside Park	2	3
Springfield (R.M.)	Birds Hill Provincial Park	3,523	
	Spring Hill Winter Park	12	3,535
Victoria Beach (R.M.)	Elk Island Heritage Park	1,001	1,001
Whitemouth (R.M.)	Seven Sisters Wayside Park	2	
	Whitemouth Falls Wayside Park	2	4
Winnipeg City	Winnipeg Parks	2,953	2,953

*R.M. or L.G.D. lies within area of Regional overlap. Therefore only half of area counted.

TABLE 79 - Continued

Natural Regions R.M. or L.G.D.	Name of Park	Area In Hectares	
		Park	R.M. Total
Winnipeg (Cont'd)			
Winnipeg Unorganized	Birch Falls Wayside Park	2	
	Birch Point Provincial Recreation Park	13	
	Black River Wayside Park	2	
	Curries Landing Wayside Park	2	
	Government Landing Wayside Park	2	
	Manigotagan Wayside Park	4	
	Moose Lake Provincial Recreation Park	957	
	Nopiming Provincial Park	143,749	
	Silver Falls Wayside Park	2	
	St. Norbert Provincial Recreation Park	6	
	Wallace Lake Provincial Recreation Park	21	
	Wanipigow Lake Provincial Recreation Park	6	
	Whiteshell Provincial Park	273,512	
			418,278
Region Total:			429,799
Winkler			
*Argyle (R.M.)	Rock Lake Provincial Recreation Park	1	1
*De Salaberry (R.M.)	St. Malo Provincial Recreation Park	42	42
*Dufferin (R.M.)	Stephenfield Provincial Recreation Park	38	38
Montcalm (R.M.)	Emerson Museum Wayside Park	2	
	Letellier Wayside Park	2	4
Pembina (R.M.)	LaVerendrye Wayside Park	1	1
South Norfolk (R.M.)	Treherne Wayside Park	2	2
Region Total:			88

*R.M. or L.G.D. lies within area of Regional overlap. Therefore only half of area counted.

TABLE 79 - Continued

Natural Regions R.M. or L.G.D.	Name of Park	Area In Hectares	
		Park	R.M. Total
Brandon			
*Argyle (R.M.)	Rock Lake Provincial Recreation Park	2	2
*Birtle (R.M.)	Birtle Wayside Park	2	2
Daly (R.M.)	Rivers Wayside Park	6	6
*Lansdowne (R.M.)	Keyes Wayside Park	1	1
Miniota (R.M.)	Sioux Benn Wayside Park	2	2
Minto (R.M.)	Grant Memorial Wayside Park	4	4
Morton (R.M.)	Fairburn Wayside Park	1	
	Turtle Mountain Provincial Park	18,908	
	William Lake Provincial Recreation Park	118	19,027
North Cypress (R.M.)	Camp Hughes Wayside Park	2	
	Seton Wayside Park	2	4
Oakland (R.M.)	Log Cabin Wayside Park	2	2
*Park (L.G.D.)	Riding Mountain National Park	148,930	148,930
Pipestone (R.M.)	Pipestone Wayside Park	2	2
Rosedale (R.M.)	Kerr Lake Special Use Park	15	15
*Russell (R.M.)	Binscarth Wayside Park	3	3
Sifton (R.M.)	Oak Lake Provincial Recreation Park	10	10
South Cypress (R.M.)	Spruce Woods Provincial Park	24,865	24,865
Strathcona (R.M.)	Pelican Lake Provincial Recreation Park	6	6
Turtle Mountain (R.M.)	Killarney Wayside Park	1	1
Wallace (R.M.)	Hargarve Wayside Park	2	
	Kirkella Wayside Park	1	
	Kirkella Information Plaza	1	4
*Westbourne (R.M.)	Lynch Point Provincial Recreation Park	17	17

*R.M. or L.G.D. lies within area of Regional overlap. Therefore only half of area counted.

TABLE 79 - Continued

Natural Regions R.M. or L.G.D.	Name of Park	Area In Hectares	
		Park	R.M. Total
Brandon (Cont'd)			
Whitehead (R.M.)	Grand Valley Provincial Recreation Park	30	30
Whitewater (R.M.)	Souris River Wayside Park	2	2
Region Total:			192,932
Dauphin			
Alonsa (L.G.D.)	Amaranth Beach Provincial Recreation Park	2	
	Margaret Bruce Provincial Recreation Park	6	8
*Birtle (R.M.)	Birtle Wayside Park	2	2
Ethelbert (R.M.)	River Hill Wayside Park	2	2
Gilbert Plains (R.M.)	Brokenpipe Wayside Park	2	2
Grandview (R.M.)	Rosebud Wayside Park	2	2
*Lansdowne (R.M.)	Keyes Wayside Park	1	1
Lawrence (R.M.)	Manipogo Provincial Recreation Park	52	
	Methley Beach Provincial Recreation Park	48	100
Mountain (L.G.D.)	Cowan Wayside Park	2	
	Pine River Wayside Park	2	
	Primrose Wayside Park	2	
	Springwater Wayside Park	19	
	Steeprock River Provincial Recreation Park	2	27
Ochre River (R.M.)	Rainbow Beach Provincial Recreation Park	48	48
*Park (R.M.)	Riding Mountain National Park	148,930	148,930
*Russell (R.M.)	Binscarth Wayside Park	3	3
Ste. Rose (R.M.)	Kergwenan Wayside Park	12	12
Shellmouth (R.M.)	Asessippi Provincial Park	2,461	
	Dropmore East Wayside Park	2	
	Dropmore West Wayside Park	2	2,465

*R.M. or L.G.D. lies within area of Regional overlap. Therefore only half of area counted.

TABLE 79 - Continued

Natural Regions R.M. or L.G.D.	Name of Park	Area In Hectares	
		Park	R.M. Total
Dauphin (Cont'd)			
Shell River (R.M.)	Pyott's Point Wayside Park	2	
	Roblin East Wayside Park	2	
	Roblin West Wayside Park	2	6
Swan River (R.M.)	Swan River Wayside Park	2	2
*Westbourne (R.M.)	Lynch Point Provincial Recreation Park	17	17
Dauphin Unorganized	Bell Lake Wayside Park	2	
	Crane River Wayside Park	4	
	Duck Mountain Provincial Park	127,472	
	Harmon Lake Wayside Park	2	
	Lake Winnipegosis Wayside Park	2	
	Mafeking Wayside Park	2	
	Red Deer River Wayside No. 1	2	
	Red Deer River Wayside No. 2	2	
	Steeprock Lake Wayside Park	2	
	Waterhen Ferry Provincial Recreation Park	2	
	Whitefish Lake Wayside Park	2	127,495
Region Total:			279,119
Interlake			
*Bifrost (R.M.)	Hnausa Beach Provincial Recreation Park	5	5
*Coldwell (R.M.)	Lundar Beach Provincial Recreation Park	5	5
*Ericksdale (R.M.)	McEwan Memorial Wayside Park	3	3
Grahamdale (L.G.D.)	Fairford River Wayside Park	2	
	Lake St. Martin Provincial Recreation Park	7	
	Steeprock Provincial Recreation Park	2	
	Watchorn Bay Provincial Recreation Park	9	20
Grand Rapids (L.G.D.)	Grand Rapids Wayside Park	2	2

*R.M. or L.G.D. lies within area of Regional overlap. Therefore only half of area counted.

TABLE 79 - Continued

Natural Regions R.M. or L.G.D.	Name of Park	Area In Hectares	
		Park	R.M. Total
Interlake (Cont'd)			
Interlake Unorganized	Beaver Creek Provincial Recreation Park	19	
	Buffalo Lake Wayside Park	2	
	Devils Lake Wayside Park	2	
	Grindstone Provincial Recreation Park	25,822	
	Hecla Island Provincial Park	86,312	
	Islandview Wayside Park	2	
	Lake St. Andrew Wayside Park	2	
	Lake St. George Wayside Park	2	
	Mantagao Wayside Park	2	
	Oscar Point Wayside Park	2	112,167
Region Total:			112,202
The Pas			
Snow Lake (L.G.D.)	Wekusko Falls Wayside Park.	2	
	Wekusko Lake Wayside Park	2	4
The Pas Unorganized	Bakers Narrows Provincial Recreation Park	182	
	Bakers Narrows Wayside Park	2	
	Clearwater Lake Provincial Park	59,572	
	Cormorant Lake Wayside Park	2	
	Cranberry Portage Provincial Recreation Park	38	
	Goose Lake Wayside Park	2	
	Grass River Provincial Park	228,963	
	Jennie Lake Wayside Park	2	
	Kisseynew Lake Narrows Wayside Park	2	
	Kississing Lake Wayside Park	2	
	Kississing River Wayside Park	2	
	Mistik Creek Wayside Park	2	
	Naosap Lake Wayside Park	2	
	Neso Lake Wayside Park	2	
	Overflowing River Provincial Recreation Park	14	
	Overflowing River Wayside Park	2	
	Rocky Lake Provincial Recreation Park	25	
	Sally Beach Wayside Park	2	
	Scenic Site Wayside Park	2	

*R.M. or L.G.D. lies within area of Regional overlap. Therefore only half of area counted.

TABLE 79 - Continued

Natural Regions R.M. or L.G.D.	Name of Park	Area In Hectares	
		Park	R.M. Total
The Pas (Cont'd)			
	Twin Lakes Wayside Park	2	
	We Lake Wayside Park	2	
	Whitefish Lake Wayside Park	2	
	White Lake Wayside Park	2	
Region Total:			288,403
			288,407
Northern			
Lynn Lake (L.G.D.)	Burge Lake Provincial Recreation Park	8	
	Zed Lake Provincial Recreation Park	12	20
Mystery Lake (L.G.D.)	Ospwagon Lake Wayside Park	2	
	Paint Lake Provincial Recreation Park	22,643	
	Pisew Falls Wayside Park.	93	
	Sasagiu Rapids Wayside Park	155	22,892
Northern Unorganized	Buffalo Lake Wayside Park	2	
	Eden Lake Wayside Park	2	
	Granville Provincial Recreation Park	14	
	Hargrave River Wayside Park	2	
	Hughes Lake Wayside Park	2	
	Hughes River Wayside Park	2	
	Midlake Fishing Access Wayside Park	2	
	Minago River Wayside Park	2	
	Suwanne River Wayside Park	2	
	Setting Lake Wayside Park	2	
	Troy Lake Wayside Park	2	
	Vanderckhove Wayside Park	2	
Region Total:			36
			22,948
Provincial Total:		1,325,495	

*R.M. or L.G.D. lies within area of Regional overlap. Therefore only half of area counted.

Source: Department of Mines, Natural Resources and the Environment. Parks Branch. 1979. "Parklands Compilation". (An unpublished dossier intended for general references only). Winnipeg: Parks Branch.

: Table 77.

: Updated as described in the text.

TABLE 80

INVENTORY

PROVINCIAL PARKLAND (AREA)

	Hectares	
Northeastern Region		
Provincial Recreation Parks	22,677	
Provincial Wayside Parks	274	
Region Total		22,951
Northwestern Region		
Provincial Natural Parks	288,535	
Provincial Recreation Parks	258	
Provincial Wayside Parks	38	
Region Total		288,831
Eastern Region		
Provincial Natural Parks	149,733	
Provincial Recreation Parks	138	
Provincial Wayside Parks	30	
Provincial Heritage Parks	1,001	
Special Use Parks	28	
Region Total		150,930
Interlake Region		
Provincial Natural Parks	86,312	
Provincial Recreation Parks	26,184	
Provincial Wayside Parks	29	
Region Total		112,525

TABLE 80 - Continued

	Hectares	
Western Region		
Provincial Natural Parks	129,933	
Provincial Recreation Parks	168	
Provincial Wayside Parks	75	
Region Total		130,176
Southeastern Region		
Provincial Natural Parks	274,393	
Provincial Recreation Parks	1,229	
Provincial Wayside Parks	85	
Region Total		275,707
Southwestern Region		
Provincial Natural Parks	43,772	
Provincial Recreation Parks	175	
Provincial Wayside Parks	34	
Special Use Parks	15	
Region Total		43,996
Total Provincial Parkland		1,025,116

Source: Table 79.

TABLE 81

INVENTORY

AREA OF MANITOBA PROVINCIAL PARKS BY NATURAL REGIONS

Natural Regions	Hectares of Provincial Parkland			
	Provincial Natural Parkland	Provincial Recreation Parkland	Provincial Wayside and Other Parkland	Total Parkland
Winnipeg	424,126	1,568	1,152	426,846
Winkler	-	80	9	88
Brandon*	167,837	25,046	49	192,932
Dauphin*	278,863	177	79	279,119
Interlake	86,312	25,869	21	112,202
The Pas	288,107	258	42	288,407
Northern	-	22,677	272	22,949
Provincial Total	1,245,244	75,676	1,623	1,322,543

*1/2 of Riding Mountain National Park is counted in the region.

Source: Table 79.

developed type of parks, i.e. provincial recreation, wayside and special use parks.

Of the regions, Winnipeg has the most parkland. It has 32.3% of the provincial total (Table 81). The Pas is second with 21.8%. The Dauphin and Brandon regions have 21.1% and 14.6% respectively. The Northern region has 1.7% and the Winkler region the least with less than .01%.

APPENDIX H

ANALYSIS OF NEED

APPENDIX H

ANALYSIS OF NEED

This section of the thesis analyses the amount of outdoor recreational facilities demanded and supplied, thus revealing the amount 'needed'.

A. Resources Demanded.—The volume of resources demanded is wholly dependent upon the participation rate factors of Table 5 and the formulas discussed earlier. Tables 82a, 82b and 83c show how the 'number of person visits' is transformed by the participation rate factors into the volume of resources demanded. The 'number of person visits' is the number of participant days as determined from Table 22.

(1) Resources Demanded by the Province.—The amount of resources demanded by the province as a whole is listed in Table 83. These figures summarize the results of calculating the participation rates and frequencies from the telephone survey and subjecting them to the participation rate factors through the formulas discussed earlier.

(2) Resources Demanded - Rural-Urban Analysis.—When one takes into account the percentage of population in the rural and urban sectors of the province, the rural sector demands more resources than the urban sector for the activities of picnicking, driving for pleasure, walking or hiking, bicycling, horseback riding, swimming, fishing, hunting,

TABLE 82a

DEMAND

DEMAND CALCULATIONS BY ACTIVITY FOR MANITOBA

	E[1]	F	G	H	I
Activity	Number Person Visits	Peaking Factor	No. of Person Visits During Peak Period	No. of Days During Peak Period	No. of Visits Per Day During Peak Period
Camping	2,416,792.09	0.5	1,208,396.05	30.9	39,106.67
Picnicking	2,482,193.35	0.5	1,241,096.68	32.6	38,070.45
Visiting Historic Sites	854,213.23	0.5	427,106.62	25.7	16,618.93
Driving for Pleasure	6,310,258.39	0.5	3,155,129.20	68.6	45,993.14
Walking or Hiking	8,868,320.03	0.5	4,434,160.02	32.6	136,017.18
Back Packing	190,243.38	0.5	95,121.69	32.6	2,917.84
Bicycling	3,796,335.30	0.45	1,708,350.89	45.7	37,381.86
Horseback Riding	573,896.03	0.45	258,253.21	45.7	5,651.06
Swimming	5,034,441.84	0.45	2,265,498.83	21.0	107,880.90
Fishing	2,352,144.68	0.45	1,048,465.11	35.4	29,900.14
Hunting	756,595.35	0.45	340,467.90	35.4	9,617.73
Sailing	152,433.35	0.5	76,216.68	30.9	2,466.56
Canoeing	913,558.45	0.5	456,779.23	30.9	14,782,50
Power Boating	958,912.47	0.5	479,456.24	30.9	15,516.38
Water Skiing	488,878.21	0.5	244,439.11	21.0	11,639.96

[1]From Table 22.

TABLE 82a - Continued

Activity	E[1] Number of Person Visits	F Peaking Factor	G No. of Person Visits During Peak Period	H No. of Days During Peak Period	I No. of Visits Per Day During Peak Period
Cross-country Skiing	2,039,238.36	0.45	1,019,619.18	23.4	43,573.47
Snowshoeing	144,064.11	0.5	72,032.06	23.4	3,078.29
Downhill Skiing	509,924.46	0.5	254,962.23	23.4	10,881.87
Snowsledding-Tobogganing	1,354,920.05	0.45	609,714.02	23.4	26,056.15
Outdoor Ice Skating	2,271,724.67	0.5	1,135,862.33	23.4	48,541.12
Snowmobiling	2,152,673.79	0.45	968,703.21	23.4	41,397.57
Trail Biking	121,002.55	0.45	54,451.15	45.7	1,191.49
Cross-country Biking	64,307.92	0.45	28,938.56	45.7	633.22
Off-road Four Wheel Driving	59,340.87	0.45	26,703.39	45.7	584.31
Golfing	1,986,115.07	0.45	893,751.78	32.6	27,415.70
Tennis	1,353,652.97	0.45	609,143.84	32.6	18,685.39
Cottaging	2,044,376.82	0.5	1,022,188.41	68.6	14,900.71
Visiting Provincial Parks	4,373,136.95	0.5	2,187,068.47	68.6	31,881.46

[1]From Table

(TABLE 82 Continued)

TABLE 82b

DEMAND

DEMAND CALCULATIONS BY ACTIVITY FOR MANITOBA (CONTINUED)

	I	J	K	L	M
Activity	No. of Visits Per Day During Peak Period	Average Party Size	No. of Party Visits Per Day During Peak Period	Turnover Rate	No. of Units of Supply Demanded Per Day
Camping	39,106.67	3.50	11,173.33	0.5/Day	22,346.66 Sites
Picnicking	38,070.45	3.75	10,152.12	1.65/Day	6,152.80 Tables
Visiting Historic Sites	16,618.93	4.00	4,154.73	16/0.5 hr.	259.67 Parties
Driving for Pleasure	45,993.14	4.00	11,498.29	4/Day	2,874.57 Cars
Walking or Hiking	136,017.18	4.00	34,004.30	40/0.25 hr.	850.11 Parties
Back Packing	2,917.84	4.00	729.46	2/Day	364.73 Parties
Bicycling	37,381.86	2.00	18,690.93	5/Day	3,738.19 Parties
Horseback Riding	5,651.06	4.00	1,412.77	2/Day	706.39 Parties
Swimming	107,880.90	4.00	26,970.23	2/Day	13,485.12 Parties
Fishing	29,900.14	2.00	14,950.07	2/Day	7,475.04 Boats
Hunting	9,617.73	2.00	4,808.86	2/Day	2,404.43 Parties
Sailing	2,466.56	2.50	986.62	2/Day	493.31 Boats
Canoeing	14,782.50	2.00	7,391.25	2/Day	3,695.63 Canoes
Power Boating	15,516.38	2.50	6,206.55	4/Day	1,551.64 Boats
Water Skiing	11,639.96	3.00	3,879.99	4/Day	970.00 Boats
Cross-country Skiing	43,573.47	3.00	14,524.49	2/Day	7,262.25 Parties

TABLE 82b - Continued

Activity	I No. of Visits Per Day During Peak Period	J Average Party Size	K No. of Party Visits Per Day During Peak Period	L Turnover Rate	M No. of Units of Supply Demanded Per Day
Snowshoeing	3,078.29	4.00	769.57	1/Day	769.57 Parties
Downhill Skiing	10,881.87	4.00	2,720.47	1/Day	2,720.47 Parties
Snowsledding-Tobogganing	26,056.15	4.00	6,514.04	2/Day	3,257.02 Parties
Outdoor Ice Skating	48,541.12	3.00	16,180.37	16/Day	1,011.27 Parties
Snowmobiling	41,397.57	4.00	10,349.39	2/Day	5,174.70 Snowmobiles
Trail Biking	1,191.49	4.00	297.87	2/Day	148.94 Parties
Cross-country Biking	633.22	2.00	316.61	2/Day	158.30 Parties
Off-road Four Wheel Driving	584.31	2.00	292.15	2/Day	146.07 Parties
Golfing	27,415.70	3.00	9,138.57	108.26/Day	84.41 Golf Courses
Tennis	18,685.39	3.00	6,228.46	16/Day	389.28 Parties
Cottaging	14,900.71	4.00	3,725.18	1/Day	3,725.18 Cottages
Visiting Provincial Parks	31,881.46	3.75	8,501.71	4/Day	2,125.43 Parties

(TABLE 82 Continued)

TABLE 82 c

DEMAND

DEMAND CALCULATIONS BY ACTIVITY FOR MANITOBA (CONTINUED)

Activity	No. of Units of Supply Demanded Per Day	Standard	Volumes of Resources Demanded Per Day
Camping	22,346.66 Sites	Sites	22,346.66 Sites
Picnicking	6,152.80 Tables	Sites	6,152.80 Sites
Visiting Historic Sites	259.67 Parties	1 Party/0.2 Centres	51.93 Museums
Driving for Pleasure	2,874.57 Cars	1 Car/0.4 km.	1,149.83 km.
Walking or Hiking	850.11 Parties	1 Party/0.5 km.	425.06 km.
Back Packing	364.73 Parties	1 Party/0.4 km.	145.89 km.
Bicycling	3,738.19 Parties	1 Party/0.03 km.	112.15 km.
Horseback Riding	706.39 Parties	1 Party/0.8 km.	565.11 km.
Swimming	13,485.12 Parties	1 Party/0.61 m.	8,225.92 metres
Fishing	7,475.04 Boats	1 Boat/3.24 ha.	24,219.13 ha.
Hunting	2,404.43 Parties	1 Party/5 ha.	12,022.15 ha.
Sailing	493.31 Boats	1 Boat/6.1 ha.	3,009.19 ha.
Canoeing	3,695.63 Canoes	1 Canoe/0.8 km.	2,956.50 km.
Power Boating	1,551.64 Boats	1 Boat/16.2 ha.	25,136.57 ha.
Water Skiing	970.00 Boats	1 Boat/16.2 ha.	15,714.00 ha.
Cross-country Skiing	7,262.25 Parties	1 Party/0.3 km.	2,178.68 km.
Snowshoeing	769.57 Parties	1 Party/0.4 km.	307.83 km.
Downhill Skiing	2,720.47 Parties	1 Party/0.05 runs	136.02 runs

TABLE 82c - Continued

Activity	No. of Units of Supply Demanded Per Day	Standard	Volumes of Resources Demanded Per Day
Snowsledding-Tobogganing	3,257.02 Parties	1 Party/0.08 runs	260.56 runs
Outdoor Ice Skating	1,011.27 Parties	1 Party/0.2 Rinks	202.25 Rinks
Snowmobiling	5,174.70 Snowmobiles	1 Snowmobile/1.6 km.	8,279.52 km.
Trail Biking	148.94 Parties	1 Party/0.8 km.	119.15 km.
Cross-country Biking	158.30 Parties	1 Party/5 ha.	791.50 ha.
Off-road Four Wheel Driving	146.07 Parties	1 Party/5 ha.	730.35 ha.
Golfing	84.41 Golf Courses	18 Holes/Golf Course	1,519.38 Holes
Tennis	389.28 Parties	1 Party/Court	389.28 Courts
Cottaging	3,725.18 Cottages	Cottages	3,725.18 Cottages
Visiting Provincial Parks	2,125.43 Parties	1 Party/ ha.	Unknown

Source: Primary Data and Table 5.

TABLE 83

TOTAL VOLUME OF RESOURCES DEMANDED

Activity	Volume of Resources
Camping	22,347 Sites
Picnicking	6,153 Sites
Visiting Historic Sites	52 Historic Sites 52 Museums
Driving for Pleasure	1,150 km.
Walking or Hiking	425 km.
Back Packing	146 km.
Bicycling	112 km.
Horseback Riding	565 km.
Swimming	8,226 metres
Fishing	24,219 ha.
Hunting	12,022 ha.
Sailing	3,009 ha.
Canoeing	2,957 km.
Power Boating	25,137 ha.
Water Skiing	15,714 ha.
Cross-country Skiing	2,179 km.
Snowshoeing	308 km.
Downhill Skiing	136 Runs
Snowsleeding-Tobogganing	261 Runs
Outdoor Ice Skating	202 Rinks
Snowmobiling	8,280 km.
Trail Biking	119 km.
Cross-country Biking	792 ha.
Off-road Four Wheel Driving	730 ha.
Golfing	1,519 Holes
Tennis	389 Courts
Cottaging	3,725 Cottages
Visiting Provincial Parks	N/A

Source: Table 82c.

canoeing, snowmobiling, off-road four wheel driving and tennis (Table 84). There is no need to calculate the amount of resources demanded for the rural and urban sectors through the formula method as the percentage of total participant days (Table 27) will also determine the percentage of volume of resources demanded for each sector. The urban and rural sectors will favor the same activities to the same degree with regards to the volume of resources demanded as it does for the percentage of total participant days.

(3) Resources Demanded - Regional Analysis.—As in the rural-urban analysis of resources demanded, the percentages of total participant days were borrowed to determine the volume of resources demanded, but in this case, they were taken from Table 36. The regional percentages were applied to the provincial total volume of resources demanded in order to determine the amount of resources demanded by each region (Table 85). These figures will in turn be compared to the supply of resources (facilities) for each region to determine the 'need' for outdoor recreational facilities.

B. Resources Supplied.—The volume of resources supplied as discussed in this section is a summary of the earlier mentioned inventory.

(1) Resources Supplied in the Province.—The volume of resources supplied in the province of Manitoba is listed in Table 86.

(2) Resources Supplied - Rural-Urban Analysis.—The volume of resources supplied by the rural and urban sectors is summarized in Table 87. As explained earlier, there are only a few activities which lend themselves to an urban-rural comparison. In some activities the facilities are not known for both the rural and the urban sectors.

TABLE 84

DEMAND

VOLUMES OF RESOURCES DEMANDED PER DAY BY ACTIVITY (RURAL - URBAN BREAKDOWN)

Activity	Provincial Total	Urban Total		Rural Total	
		Percent Urban†	Resources	Percent Rural†	Resources
% Total Population		55.25		44.75	
Camping	2,234.70 Sites	58.87	13,155.50	41.13	9,191.20 Sites
Picnicking	6,152.80 Sites	51.44	3,165.00	48.56	2,987.80 Sites
Visiting Historic Sites	51.93 Museums	60.84	31.59 Museums	39.16	20.34 Museums
Driving for Pleasure	1,149.83 km.	44.13	507.41 km.	55.87	642.42 km.
Walking or Hiking	425.06 km.	48.45	205.94 km.	51.55	219.12 km.
Back Packing	145.89 km.	77.77	113.45 km.	22.23	32.44 km.
Bicycling	112.15 km.	51.15	57.36 km.	48.85	54.79 km.
Horseback Riding	565.11 km.	37.14	209.88 km.	62.86	355.23 km.
Swimming	8,225.92 metres	21.03	1,729.91 metres	78.97	6,496.01 metres
Fishing	24,219.13 ha.	53.73	13,012.93 ha.	46.27	11,206.20 ha.
Hunting	12,022.15 ha.	41.96	5,044.49 ha.	58.04	6,977.66 ha.
Sailing	3,009.19 ha.	92.81	2,792.82 ha.	7.19	216.37 ha.
Canoeing	2,956.50 km.	42.83	1,266.26 km.	57.17	1,690.24 km.
Power Boating	25,136.57 ha.	77.54	19,490.89 ha.	22.46	5,645.68 ha.
Water Skiing	15,714.00 ha.	68.49	10,762.51 ha.	31.51	4,951.49 ha.

TABLE 84 - Continued

Activity	Provincial Total	Urban Total		Rural Total	
		Percent Urban[1]	Resources	Percent Rural[1]	Resources
% Total Population		55.25		44.75	
Cross-country Skiing	2,178.68 km.	58.86	1,282.37 km.	41.14	896.31 km.
Snowshoeing	307.83 km.	77.54	238.69 km.	22.46	69.14 km.
Downhill Skiing	136.02 Runs	79.65	108.33 Runs	20.35	27.69 Runs
Snowsledding-Tobogganing	260.56 Runs	60.07	156.51 Runs	39.93	104.05 Runs
Outdoor Ice Skating	202.25 Rinks	64.64	130.73 Rinks	35.36	71.52 Rinks
Snowmobiling	8,279.52 km.	20.90	1,732.07 km.	79.10	6,547.45 km.
Trail Biking	119.15 km.	82.80	98.65 km.	17.20	20.50 km.
Cross-country Biking	791.50 ha.	74.25	587.68 ha.	25.75	203.82 ha.
Off-road Four Wheel Driving	730.35 ha.	13.39	97.79 ha.	86.61	632.56 ha.
Golfing	1,519.38 Holes	61.29	931.22 Holes	38.71	588.16 Holes
Tennis	389.28 Courts	32.03	124.68 Courts	67.97	264.60 Courts
Cottaging	3,725.18 Cottages	75.84	2,825.18 Cottages	24.16	900.00 Cottages
Visiting Provincial Parks[2]	Unknown	65.94	Unknown	34.06	Unknown

1. Source: Table 27.

2. No Standards set, therefore, the amount of Resources Demanded is unknown.

TABLE 85

DEMAND

VOLUMES OF RESOURCES DEMANDED PER DAY BY ACTIVITY (REGIONAL BREAKDOWN)

Activity		Winnipeg Region	Winkler Region	Brandon Region	Dauphin Region	Interlake Region	The Pas Region	Northern Region
Camping	(Sites)	15,479.60	612.30	1,926.30	1,010.10	373.20	1,032.40	1,910.6
Picnicking	(Sites)	4,030.00	300.00	640.00	410.00	85.00	175.00	515.00
Visiting	(historic sites)	36.13	2.33	6.12	1.01	0.25	0.86	5.14
Historic Sites	(museums)	36.13	2.33	6.12	1.01	0.25	0.86	5.14
Driving for Pleasure	(km.)	671.39	120.39	173.51	64.97	24.72	21.04	73.70
Walking or Hiking	(km.)	275.69	25.04	56.49	22.70	7.91	12.07	25.21
Back Packing	(km.)	94.13	0.00	41.81	3.03	0.00	0.79	6.13
Bicycling	(km.)	80.73	4.49	15.41	5.74	1.30	0.85	3.63
Horseback Riding	(km.)	361.73	34.25	96.29	48.37	17.46	0.00	7.01
Swimming	(metres of beach)	6,093.76	246.78	754.32	375.10	62.52	240.20	453.25
Fishing	(ha.)	18,588.18	535.24	1,380.49	995.41	423.83	588.52	1,709.87
Hunting	(ha.)	7,934.62	259.68	1,075.98	1,451.07	421.98	301.76	575.86
Sailing	(ha.)	2,744.38	0.00	264.81	0.00	0.00	0.00	0.00
Canoeing	(km.)	1,749.95	108.80	518.27	103.48	0.00	248.05	228.24
Power Boating	(ha.)	19,588.93	155.85	1,960.65	1,425.24	651.04	419.78	932.57
Water Skiing	(ha.)	12,219.21	388.14	1,554.11	138.28	88.00	468.28	859.56
Cross-country Skiing	(km.)	1,570.83	115.25	184.32	89.11	47.71	56.21	115.03
Snowshoeing	(km.)	229.09	1.45	9.48	4.43	0.00	1.94	61.44

TABLE 85 - Continued

Activity	Winnipeg Region	Winkler Region	Brandon Region	Dauphin Region	Interlake Region	The Pas Region	Northern Region
Downhill Skiing (Runs)	109.44	5.24	6.01	0.97	0.00	2.14	12.23
Snowsledding-Tobogganing (Runs)	190.83	11.23	23.84	9.80	1.35	6.25	17.25
Outdoor Ice Skating (rinks)	166.27	4.67	15.67	5.20	0.44	1.38	8.64
Snowmobiling (km.)	3,996.52	809.74	1,560.69	706.24	351.88	219.41	635.04
Trail Biking (km.)	100.46	2.49	0.41	0.00	0.00	0.00	15.80
Cross-country Biking (ha.)	481.31	0.00	0.00	0.00	0.00	0.00	310.19
Off-road Four Wheel Driving (ha.)	76.83	0.00	0.00	377.30	0.00	0.00	276.36
Golfing (holes)	1,055.97	7.60	181.87	21.27	4.56	47.86	200.25
Tennis (courts)	287.25	29.94	26.43	12.42	2.41	4.05	26.78
Cottaging (Cottages)	3,023.31	42.08	254.08	101.31	0.00	50.31	253.31
Visiting Provincial Parks (ha.)	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown

TABLE 86

TOTAL VOLUME OF RESOURCES SUPPLIED

Activity	Volume of Resources
Camping	16,118 Sites
Picnicking	5,925 Sites
Visiting Historic Sites	91 Historic Sites
	105 Museums
Driving for Pleasure	4,151 km.
Walking or Hiking	583 km.
Back Packing	274 km.
Bicycling	N/A
Horseback Riding	684 km.
Swimming	30,996 metres
Fishing	N/A
Hunting	N/A
Sailing	N/A
Canoeing	10,005 km.
Power Boating	N/A
Water Skiing	N/A
Cross-country Skiing	443 km.
Snowshoeing	59 km.
Downhill Skiing	101 Runs
Snowsledding-Tobogganing	21 Runs
Outdoor Ice Skating	515 Rinks
Snowmobiling	932 km.
Trail Biking	N/A
Cross-country Biking	N/A
Off-road Four Wheel Driving	N/A
Golfing	1,008 Holes
Tennns	415 Courts
Cottaging	18,061 Cottages
Visiting Parks	1,325,496 ha.

Source: Inventory Tables as presented in this paper.

TABLE 87

VOLUMES OF RESOURCES SUPPLIED PER ACTIVITY (RURAL-URBAN BREAKDOWN)

Activity	Provincial Total	Urban Total		Rural Total	
		Percent Urban	Resources	Percent Rural	Resources
% Total Population		55.25		44.75	
Camping	16,118.00 Sites	N/A	N/A	100.00	16,118.00
Picnicking	5,925.00 Sites	Unknown	Unknown	Unknown	5,925.00
Visiting Historic Sites	91.00 Historic Sites	35.16	32	64.84	59
	105.00 Musems	20.95	22	79.05	83
Driving for Pleasure	4,151.00 km.	Unknown	Unknown	Unknown	4,151.00
Walking or Hiking	583.30 km.	Unknown	Unknown	Unknown	583.30
Back Packing	273.80 km.	N/A	N/A	100.00	273.80
Bicycling	N/A	N/A	N/A	N/A	N/A
Horseback Riding	684.00 km.	Unknown	Unknown	Unknown	684.00
Swimming	30,995.90 metres	N/A	N/A	100.00	30,995.90
Fishing	N/A	N/A	N/A	N/A	N/A
Hunting	N/A	N/A	N/A	N/A	N/A
Sailing	N/A	N/A	N/A	N/A	N/A
Canoeing	10,005.00 km.	Unknown	Unknown	Unknown	10,005.00
Power Boating	N/A	N/A	N/A	N/A	N/A
Water Skiing	N/A	N/A	N/A	N/A	N/A

TABLE 87 - Continued

Activity	Provincial Total	Urban Total		Rural Total	
		Percent Urban	Resources	Percent Rural	Resources
% Total Population		55.25		44.75	
Cross-country Skiing	443.00 km.	Unknown	Unknown	Unknown	443.00
Snowshoeing	58.90 km.	Unknown	Unknown	Unknown	58.90
Downhill Skiing	101.00 Runs	N/A	N/A	100.00	101.00
Snowsledding-Tobogganing	21 Runs	Unknown	21	Unknown	Unknown
Outdoor Ice Skating	515 Rinks	60.00	309	40.00	206
Snowmobiling	932.00 km.	N/A	N/A	100.00	932.00
Trail Biking	N/A	N/A	N/A	N/A	N/A
Cross-country Biking	N/A	N/A	N/A	N/A	N/A
Off-road Four Wheel Driving	N/A	N/A	N/A	N/A	N/A
Golfing	1,008.00 Holes	31.25	315	68.75	693
Tennis	415.00 Courts	62.17	258	37.83	157
Cottaging	18,061.00 Cottages	N/A	N/A	100.00	18,061.00
Visiting Parks	1,325,495,66 ha.	0.22	2,952.72	99.78	1,322,542.94

Source: Inventory Tables as presented in this paper.

In other activities, the facilities are known for one sector and not for the other.

The activities which can be compared are visiting historic sites and museums, outdoor ice skating, golfing, tennis, and visiting parks. The only facilities for which the urban sector has more than its share compared to its percent of the total population is outdoor skating rinks and tennis courts.

(3) Resources Supplied - Regional Analysis.—The amount of resources supplied by each region is listed in Table 88. For the purposes of a regional analysis, a discussion of regional percentages of the total provincial supply is more appropriate (Table 89). Comparisons with the regional percentages of the total population reveal any inequities based upon the per capita supply of facilities. At the same time, it is not wise to plan or build facilities according to the population level of the area but rather according to use or participation levels for each activity. A region may have a high relative percentage of the population but have a very low relative supply of a particular facility. At first glance it may appear disproportionate but the demand for that particular facility may be low in that particular region and therefore is proportional to the demand. The region may even have an over-supply of that facility.

TABLE 88

SUPPLY

VOLUMES OF RESOURCES SUPPLIED PER ACTIVITY (REGIONAL BREAKDOWN)

Activity		Winnipeg Region	Winkler Region	Brandon Region	Dauphin Region	Interlake Region	The Pas Region	Northern Region
Camping	(Sites)	8,201.00	931.00	2,659.00	2,156.00	951.00	772.00	448.00
Picnicking	(Sites)	3,735.00	285.00	1,045.00	395.00	175.00	115.00	175.00
Visiting Historic Sites	(Historic Sites)	53.50	11.00	8.50	6.50	1.50	3.00	7.00
	(Museums)	44.00	15.50	27.00	12.00	2.50	1.00	3.00
Driving for Pleasure	(km.)	1,344.00	322.00	986.00	705.00	111.00	435.00	248.00
Walking or Hiking	(km.)	156.70	0.00	198.85	207.75	14.40	0.00	5.60
Back Packing	(km.)	60.00	0.00	106.90	106.90	0.00	0.00	0.00
Bicycling	(km.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Horseback Riding	(km.)	228.0	0.00	260.5	195.5	0.00	0.00	0.00
Swimming	(metres of beach)	19,573.40	524.30	3,131.10	4,047.4	2,226.0	1,128.00	365.7
Fishing	(ha.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hunting	(ha.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sailing	(ha.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Canoeing	(km.)	2,256.00	97.50	530.5	11.00	0.00	869.00	6,241.0
Power Boating	(ha.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Water Skiing	(ha.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cross-country Skiing	(km.)	179.00	0.00	109.00	92.00	30.00	30.00	3.00
Snowshoeing	(km.)	40.10	0.00	9.70	2.10	7.00	0.00	0.00

TABLE 88 - Continued

Activity		Winnipeg Region	Winkler Region	Brandon Region	Dauphin Region	Interlake Region	The Pas Region	Northern Region
Downhill Skiing	(Runs)	31.00	20.00	16.00	21.00	0.00	3.00	10.00
Snowsledding-Tobogganing	(runs)	21	0.00	0.00	0.00	0.00	0.00	0.00
Outdoor Ice Skating	(rinks)	383.50	34.50	34.50	27.50	6.00	18.00	11.00
Snowmobiling	(km.)	477.00	0.00	288.00	74.00	58.00	35.00	0.00
Trail Biking	(km.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cross-country Biking	(ha.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Off-road Four Wheel Driving	(ha.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Golfing	(holes)	490.50	81.00	301.50	76.50	31.50	18.00	9.00
Tennis	(courts)	311.50	9.50	61.00	19.00	4.00	4.00	6.00
Cottaging	(Cottages)	13,629.00	115.00	1,633.00	734.00	718.00	985.00	246.00
Visiting Parks	(ha.)	429,798.22	88.22	192,932.37	279,118.50	112,202.09	288,407.38	22,948.88

Source: Inventory Tables as presented in this paper.

TABLE 89

SUPPLY

PERCENT OF TOTAL RESOURCES SUPPLIED PER ACTIVITY (REGIONAL BREAKDOWN)

Activity	Winnipeg Region	Winkler Region	Brandon Region	Dauphin Region	Interlake Region	The Pas Region	Northern Region
% Total Population	68.84	5.09	10.89	5.37	1.37	2.17	6.27
Camping	50.88	5.78	16.50	13.38	5.90	4.79	2.78
Picnicking	63.04	4.81	17.64	6.67	2.95	1.94	2.95
Visiting Historic Sites (historic sites)	58.79	12.09	9.34	7.14	1.65	3.30	7.69
(museums)	41.90	14.76	25.71	11.43	2.38	0.95	2.86
Driving for Pleasure	32.38	7.76	23.75	16.98	2.67	10.48	5.97
Walking or Hiking	26.86	0.00	34.09	35.62	2.47	0.00	0.96
Back Packing	21.91	0.00	39.04	39.04	0.00	0.00	0.00
Bicycling	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Horseback Riding	33.33	0.00	38.09	28.58	0.00	0.00	0.00
Swimming	63.15	1.69	10.10	13.06	7.18	3.64	1.18
Fishing	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hunting	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sailing	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Canoeing	22.55	0.97	5.30	0.11	0.00	8.69	62.38
Power Boating	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Water Skiing	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cross-country Skiing	40.41	0.00	24.60	20.77	6.77	6.77	0.68
Snowshoeing	68.08	0.00	16.47	3.57	11.88	0.00	0.00

TABLE 89 - Continued

Activity	Winnipeg Region	Winkler Region	Brandon Region	Dauphin Region	Interlake Region	The Pas Region	Northern Region
% Total Population	68.84	5.09	10.89	5.37	1.37	2.17	6.27
Downhill Skiing	30.69	19.80	15.84	20.79	0.00	2.97	9.90
Snowsledding-Tobogganing	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Outdoor Ice Skating	74.47	6.70	6.70	5.34	1.17	3.50	2.14
Snowmobiling	51.18	0.00	30.90	7.94	6.22	3.76	0.00
Trail Biking	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cross-country Biking	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Off-road Four Wheel Driving	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Golfing	48.66	8.04	29.91	7.59	3.13	1.79	0.89
Tennis	75.06	2.29	14.70	4.58	0.96	0.96	1.45
Cottaging	75.46	0.64	9.04	4.06	3.98	5.45	1.36
Visting Parks	32.43	0.06	14.56	21.06	8.46	21.76	1.73

Source: Calculated from Table 88.

APPENDIX I

PROJECTION ANALYSIS

APPENDIX I

PROJECTION ANALYSIS

As part of the purpose of this thesis, a projection of the 'supply' and 'demand' for outdoor recreational facilities is discussed in this section. Projections are necessary in order to plan for future facilities.

A. Demand Projections.—The procedure for projecting the current demand figures was adopted from the Souris River Basin Study (Souris River Basin Study Board, 1978:Table II(iv), Part II-26). The figures in Table 90 represent the amount of projected demand for the years 1980, 1990 and 2030 based upon the formula at the bottom of the Table which is mainly a consideration of population increase. The demand figures do not in themselves reveal a great deal of information unless one examines the projected supply figures.

B. Supply Projections.—The figures in Table 91 represent the supply of outdoor recreational facilities needed in the projected years in order to have the same per capita supply as the current year. The projected supply figures only magnify the surplus or deficit that currently exists and does very little in terms of enlightening the reader as to the actual need for outdoor recreational facilities in future years.

TABLE 90

DEMAND

PROVINCIAL DEMAND PROJECTIONS[1]

Activity		1979	1980	1990	2030
Camping	(Sites)	22,347	23,241	35,778	82,004
Picnicking	(Sites)	6,153	6,400	9,855	22,585
Visiting Historic Sites					
	(historic sites)	52	54	83	191
	(museums)	52	54	83	191
Driving for Pleasure	(km.)	1,150	1,196	1,841	4,219
Walking or Hiking	(km.)	425	442	681	1,560
Back Packing	(km.)	146	152	234	535
Bicycling	(km.)	112	117	180	412
Horseback Riding	(km.)	565	588	905	2,074
Swimming	(metres)	8,226	8,555	13,180	30,186
Fishing	(ha.)	24,219	25,188	38,776	88,875
Hunting	(ha.)	12,022	12,503	19,248	44,117
Sailing	(ha.)	3,009	3,130	4,818	11,043
Canoeing	(km.)	2,957	3,075	4,733	10,849
Power Boating	(ha.)	25,137	26,142	40,244	92,242
Water Skiing	(ha.)	15,714	16,343	25,159	57,665
Cross-country Skiing	(km.)	2,179	2,266	3,488	7,995
Snowshoeing	(km.)	308	320	493	1,130
Downhill Skiing	(Runs)	136	141	218	499
Snowsledding-Tobogganing	(Runs)	261	271	417	956
Outdoor Ice Skating	(rinks)	202	210	324	742
Snowmobiling	(km.)	8,280	8,611	13,256	30,383
Trail Biking	(km.)	119	124	191	437
Cross-country Biking	(ha.)	792	823	1,267	2,905

TABLE 90 - Continued

Activity	1979	1980	1990	2030
Off-road Four Wheel Driving (ha.)	730	760	1,169	2,680
Golfing (holes)	1,519	1,580	2,433	5,576
Tennis (courts)	389	405	623	1,429
Cottaging (cottages)	3,725	3,874	5,964	13,670
Visiting (ha.) Provincial Parks	N/A	N/A	N/A	N/A

[1]Calculated as follows: 1979 Figures Taken from Table 7 x 1.04 = 1980 Figures x 1.04^{11} = 1990 Figures x 1.04^{11} x 1.01^{40} = 2030 Figures.

TABLE 91

PROVINCIAL SUPPLY PROJECTIONS[1]

Activity		1979	1980	1990	2030
Camping	(Sites)	16,118	16,763	25,805	59,147
Picnicking	(Sites)	5,925	6,160	9,485	21,745
Visiting Historic Sites	(historic sites)	91	95	146	334
	(museums)	105	109	168	385
Driving for Pleasure	(km.)	4,151	4,317	6,646	15,233
Walking or Hiking	(km.)	583	607	934	2,140
Back Packing	(km.)	274	285	438	1,005
Bicycling	(km.)	N/A	N/A	N/A	N/A
Horseback Riding	(km.)	684	711	1,095	2,510
Swimming	(metres)	30,996	32,236	49,625	113,743
Fishing	(ha.)	N/A	N/A	N/A	N/A
Hunting	(ha.)	N/A	N/A	N/A	N/A
Sailing	(ha.)	N/A	N/A	N/A	N/A
Canoeing	(km.)	10,005	10,405	16,618	36,715
Power Boating	(ha.)	N/A	N/A	N/A	N/A
Water Skiing	(ha.)	N/A	N/A	N/A	N/A
Cross-country Skiing	(km.)	443	461	709	1,626
Snowshoeing	(km.)	59	61	94	216
Downhill Skiing	(Runs)	101	105	162	371
Snowsledding-Tobogganing	(Runs)	21	22	34	77
Outdoor Ice Skating	(rinks)	515	536	825	1,890
Snowmobiling	(km.)	932	969	1,492	3,420
Trail Biking	(km.)	N/A	N/A	N/A	N/A
Cross-country Biking	(ha.)	N/A	N/A	N/A	N/A

TABLE 91 - Continued

Activity	1979	1980	1990	2030
Off-road Four Wheel Driving (ha.)	N/A	N/A	N/A	N/A
Golfing (holes)	1,008	1,048	1,614	3,699
Tennis (courts)	415	432	66	1,523
Cottaging (Cottages)	18,061	18,783	28,916	8,816
Visiting Provincial Parks (ha.)	1,325,496	1,378,515	2,122,161	4,864,073

[1]Calculated as follows: 1979 Figures as taken from Table x 1.04 = 1980 Figures x 1.04^{11} = 1990 Figures x 1.04^{11} x 1.01^{40} = 2030 Figures.

APPENDIX J

ADEQUACY OF OUTDOOR RECREATIONAL FACILITIES

TABLE 92

ADEQUACY OF OUTDOOR RECREATIONAL FACILITIES
(TOTAL AND RURAL-URBAN BREAKDOWN)

Facility		Percentage		
		Provincial Manitoba	Urban Manitoba	Rural Manitoba
Number and Variety of Camping Areas	Adequate	66.8	70.1	64.7
	Inadequate	30.0	24.5	33.6
	Indifferent	3.2	5.4	1.7
Number of Campsites	Adequate	72.4	70.6	74.5
	Inadequate	23.9	23.4	23.8
	Indifferent	3.7	6.0	1.7
Camping Information and Area Maps	Adequate	81.3	79.2	83.1
	Inadequate	10.6	10.1	9.8
	Indifferent	8.1	10.7	7.1
Camping Sanitary Facilities	Adequate	76.3	72.1	79.8
	Inadequate	19.7	23.0	16.3
	Indifferent	4.0	4.9	3.9
Showers	Adequate	64.3	58.5	69.4
	Inadequate	26.9	30.0	24.9
	Indifferent	8.8	11.5	5.7
Camping Fees	Adequate	88.2	86.2	89.6
	Inadequate	8.8	9.3	8.2
	Indifferent	3.0	4.5	2.2
Number and Variety of Picnic Areas	Adequate	75.0	77.9	72.6
	Inadequate	18.5	16.0	20.8
	Indifferent	6.5	6.1	6.6
Number of Picnic Tables and Shelters	Adequate	70.0	67.3	72.3
	Inadequate	25.6	27.4	24.2
	Indifferent	4.4	5.3	3.5
Picnic Cooking Facilities	Adequate	64.7	65.8	63.3
	Inadequate	16.1	18.0	13.2
	Indifferent	19.2	16.2	23.5
Historical Information	Adequate	91.7	88.8	95.1
	Inadequate	7.5	9.8	4.9
	Indifferent	0.8	1.4	-

TABLE 92 - Continued

Facility		Percentage		
		Provincial Manitoba	Urban Manitoba	Rural Manitoba
Historical and Interpretive Displays	Adequate	92.9	91.2	95.5
	Inadequate	3.2	4.6	1.9
	Indifferent	3.9	4.2	2.6
Guided Historical Tours	Adequate	70.5	69.2	71.9
	Inadequate	4.9	6.0	2.0
	Indifferent	24.6	24.8	26.1
Historical Site Sanitary Facilities	Adequate	89.6	86.9	93.7
	Inadequate	7.9	9.8	5.0
	Indifferent	2.5	3.3	1.3
Marked Driving Routes	Adequate	82.9	72.7	90.1
	Inadequate	1.7	3.0	0.8
	Indifferent	15.4	24.3	9.1
Proper Signs at Points of Interest	Adequate	89.0	87.0	90.3
	Inadequate	5.5	8.0	3.4
	Indifferent	5.5	5.0	6.3
Number and Variety of Walking and Hiking Trails	Adequate	19.0	22.3	15.4
	Inadequate	3.4	5.8	1.1
	Indifferent	77.6	71.9	83.5
Hiking Trail Information and Maps	Adequate	40.6	38.5	40.8
	Inadequate	11.7	12.2	9.9
	Indifferent	47.7	49.3	49.3
Interpretive Nature Centres	Adequate	43.9	38.8	52.5
	Inadequate	3.3	1.5	4.9
	Indifferent	52.8	59.7	42.6
Lookout Points and Towers	Adequate	46.2	39.6	58.1
	Inadequate	9.9	9.7	8.1
	Indifferent	43.9	50.7	33.8
Number and Variety of Bicycle Paths	Adequate	25.7	33.8	14.6
	Inadequate	17.8	25.6	9.3
	Indifferent	56.4	40.6	76.1
Bicycle Path Information and Maps	Adequate	52.1	52.3	47.7
	Inadequate	17.8	19.6	15.9
	Indifferent	30.1	28.1	36.4
Number and Variety of Horseback Riding Trails	Adequate	53.2	55.8	48.9
	Inadequate	22.0	25.0	17.8
	Indifferent	24.8	19.2	33.3
Horseback Riding Trail Information and Maps	Adequate	58.2	52.4	61.5
	Inadequate	22.8	23.8	19.2
	Indifferent	19.0	23.8	19.3

TABLE 92 - Continued

Facility		Percentage		
		Provincial Manitoba	Urban Manitoba	Rural Manitoba
Serviced Beaches	Adequate	74.8	75.8	71.6
	Inadequate	22.0	20.7	25.2
	Indifferent	3.2	3.5	3.2
Swim Changing Facilities	Adequate	71.8	71.1	71.5
	Inadequate	21.8	20.2	24.2
	Indifferent	6.4	8.7	4.3
Beach Supervision and Safety Measures	Adequate	68.8	71.6	65.0
	Inadequate	24.2	18.2	30.7
	Indifferent	7.0	10.2	4.3
Marinas for Fishing Boats and Equipment Rentals	Adequate	24.9	28.4	20.4
	Inadequate	5.1	7.7	2.4
	Indifferent	70.0	63.9	77.2
Fishing Boat Launching Ramps	Adequate	76.9	56.5	91.0
	Inadequate	5.8	10.2	2.0
	Indifferent	17.3	33.3	7.0
Sailboat Mooring Facilities	Adequate	73.5	72.4	75.0
	Inadequate	11.8	13.8	-
	Indifferent	14.7	13.8	25.0
Sailboat Launching Ramps	Adequate	85.3	86.2	75.0
	Inadequate	8.8	6.9	25.0
	Indifferent	5.9	6.9	-
Number and Variety of Canoe Routes	Adequate	35.0	51.2	22.1
	Inadequate	5.1	9.3	1.1
	Indifferent	59.9	39.5	76.8
Canoe Route Information and Maps	Adequate	33.7	48.1	22.2
	Inadequate	5.2	6.5	3.7
	Indifferent	61.1	45.4	74.1
Power Boat Launching Ramps	Adequate	77.0	72.1	87.2
	Inadequate	13.8	17.3	7.7
	Indifferent	9.2	10.6	5.1
Power Boat Docking Facilities	Adequate	81.9	78.4	89.5
	Inadequate	8.3	10.3	5.3
	Indifferent	9.8	11.3	5.2
Number and Variety of Cross-country Skiing and Snowshoeing Trails	Adequate	61.6	62.4	57.3
	Inadequate	19.2	26.3	13.5
	Indifferent	19.2	11.3	29.2
Cross-country Skiing and Snowshoeing Trail Information and Maps	Adequate	60.2	60.3	58.0
	Inadequate	19.4	19.8	21.7
	Indifferent	20.4	19.9	20.3

TABLE 92 - Continued

Facility		Percentage		
		Provincial Manitoba	Urban Manitoba	Rural Manitoba
Cross-country Skiing and Snowshoeing Warm-up Facilities	Adequate	65.1	57.9	73.1
	Inadequate	20.1	23.8	16.4
	Indifferent	14.8	18.3	10.5
Cross-country Skiing and Snowshoeing Equipment Rentals	Adequate	47.1	51.7	39.1
	Inadequate	2.9	4.2	-
	Indifferent	50.0	44.1	60.9
Number of Downhill Skiing Areas	Adequate	50.0	49.0	57.7
	Inadequate	46.4	46.9	38.5
	Indifferent	3.6	4.1	3.8
Downhill Skiing Warm-up Facilities	Adequate	75.3	70.2	88.0
	Inadequate	22.2	27.7	8.0
	Indifferent	2.5	2.1	4.0
Downhill Skiing Equipment Rentals	Adequate	65.0	66.7	53.8
	Inadequate	8.8	8.9	11.5
	Indifferent	26.2	24.4	34.7
Snowsledding and Tobogganing Runs	Adequate	65.4	61.1	72.5
	Inadequate	20.4	26.1	10.8
	Indifferent	14.2	12.8	16.7
Number of Outdoor Ice Skating Areas	Adequate	75.1	75.2	73.3
	Inadequate	22.2	20.8	25.8
	Indifferent	2.6	4.0	0.9
Outdoor Ice Skating Warm-up Facilities	Adequate	81.0	79.5	82.1
	Inadequate	14.4	15.3	13.7
	Indifferent	4.6	5.3	4.3
Number and Variety of Snowmobile Trails	Adequate	39.2	61.4	28.9
	Inadequate	4.2	5.3	3.7
	Indifferent	56.6	33.3	67.4
Access to Snowmobile Trails	Adequate	73.0	67.3	76.6
	Inadequate	4.3	5.5	4.3
	Indifferent	22.6	27.2	19.1
Snowmobiling Warm-up Facilities	Adequate	65.5	56.6	73.9
	Inadequate	6.4	9.4	4.3
	Indifferent	28.2	34.0	21.8
Off-road Motoring Trails and Areas	Adequate	51.7	50.0	71.4
	Inadequate	37.9	40.0	14.3
	Indifferent	10.4	10.0	14.3
Access to Off-road Motoring Trails and Areas	Adequate	63.6	53.3	100.0
	Inadequate	27.3	33.3	-
	Indifferent	9.1	13.4	-
Number and Variety of Golf Courses	Adequate	76.8	79.5	74.3
	Inadequate	18.7	13.7	23.9
	Indifferent	4.5	6.8	1.8

TABLE 92 - Continued

Facility		Percentage		
		Provincial Manitoba	Urban Manitoba	Rural Manitoba
Number and Variety of Miniature Golf Courses	Adequate	63.9	63.4	59.3
	Inadequate	11.6	9.9	7.4
	Indifferent	24.5	26.7	33.3
Number of Tennis Courts	Adequate	63.3	64.6	52.5
	Inadequate	35.2	33.9	45.9
	Indifferent	1.5	1.5	1.6
Municipal Services for Cottages	Adequate	86.9	84.3	90.9
	Inadequate	7.3	6.5	8.0
	Indifferent	5.8	9.2	1.1

TABLE 93

ADEQUACY OF OUTDOOR RECREATIONAL FACILITIES (REGIONAL BREAKDOWN)

Facility		Percentage						
		Winnipeg Region	Winkler Region	Brandon Region	Dauphin Region	Interlake Region	The Pas Region	Northern Region
Number and Variety of Camping Areas	Adequate	66.4	57.1	81.0	58.8	100.0	57.1	65.2
	Inadequate	28.9	42.9	19.0	35.3	-	42.9	34.8
	Indifferent	4.7	-	-	5.9	-	-	-
Number of Campsites	Adequate	71.6	66.7	86.0	64.7	50.0	78.6	65.2
	Inadequate	23.6	28.6	14.0	29.4	50.0	21.4	30.4
	Indifferent	4.8	4.7	-	5.9	-	-	4.4
Camping Information and Area Maps	Adequate	79.6	90.0	92.9	75.0	100.0	71.4	77.3
	Inadequate	10.7	-	5.4	12.5	-	21.4	18.2
	Indifferent	9.7	10.0	1.7	12.5	-	7.2	4.5
Camping Sanitary Facilities	Adequate	74.0	71.4	89.7	70.6	100.0	73.3	73.9
	Inadequate	21.7	28.6	10.3	17.6	-	20.0	13.0
	Indifferent	4.3	-	-	11.8	-	6.7	13.1
Showers	Adequate	59.5	57.1	84.2	60.0	50.0	85.7	60.9
	Inadequate	30.5	38.1	15.8	20.0	-	14.3	26.1
	Indifferent	10.0	4.8	-	20.0	50.0	-	13.0
Camping Fees	Adequate	86.9	90.5	93.1	82.4	100.0	100.0	78.3
	Inadequate	9.4	9.5	6.9	5.9	-	-	13.0
	Indifferent	3.7	-	-	11.7	-	-	8.7
Number and Variety of Picnic Areas	Adequate	75.1	77.8	86.7	59.4	33.4	63.6	74.2
	Inadequate	17.9	18.5	9.3	31.3	33.3	36.4	22.6
	Indifferent	7.0	3.7	4.0	9.3	33.3	-	3.2

TABLE 93 - Continued

Facility		Percentage						
		Winnipeg Region	Winkler Region	Brandon Region	Dauphin Region	Interlake Region	The Pas Region	Northern Region
Number of Picnic Tables and Shelters	Adequate	66.9	70.4	86.7	64.5	33.4	77.3	51.6
	Inadequate	27.8	25.9	10.7	35.5	33.3	22.7	45.2
	Indifferent	5.3	3.7	2.6	-	33.3	-	3.2
Picnic Cooking Facilities	Adequate	64.2	55.6	77.3	54.8	33.4	57.1	64.5
	Inadequate	18.3	7.4	4.0	12.9	33.3	9.5	19.4
	Indifferent	17.6	37.0	18.7	32.3	33.3	33.4	16.1
Historical Information	Adequate	89.8	100.0	100.0	100.0	100.0	100.0	78.6
	Inadequate	9.1	-	-	-	-	-	21.4
	Indifferent	1.1	-	-	-	-	-	-
Historical and Interpretive Displays	Adequate	92.1	100.0	95.3	100.0	100.0	100.0	85.7
	Inadequate	4.5	-	-	-	-	-	7.1
	Indifferent	3.4	-	4.7	-	-	-	7.2
Guided Historical Tours	Adequate	70.6	87.5	74.4	60.0	100.0	54.5	53.8
	Inadequate	5.2	-	2.3	-	-	-	7.7
	Indifferent	24.2	12.5	23.3	40.0	-	45.5	38.5
Historical Site Sanitary Facilities	Adequate	88.2	100.0	95.5	100.0	100.0	90.9	92.3
	Inadequate	9.1	-	4.5	-	-	-	7.7
	Indifferent	2.7	-	-	-	-	9.1	-
Marked Driving Routes	Adequate	77.1	97.1	94.3	90.0	100.0	85.0	86.2
	Inadequate	2.6	-	-	-	-	5.0	-
	Indifferent	20.3	2.9	5.7	10.0	-	10.0	13.8
Proper Signs at Points of Interest	Adequate	88.6	94.1	89.0	90.0	66.7	83.3	85.7
	Inadequate	7.3	-	1.1	-	-	11.1	7.1
	Indifferent	4.1	5.9	9.9	10.0	33.3	5.6	7.2
Number and Variety of Walking and Hiking Trails	Adequate	19.1	19.2	18.9	10.7	-	22.7	27.3
	Inadequate	4.4	-	1.1	-	-	-	6.0
	Indifferent	76.5	80.8	80.0	89.3	100.0	77.3	66.7

TABLE 93 - Continued

Facility		Percentage						
		Winnipeg Region	Winkler Region	Brandon Region	Dauphin Region	Interlake Region	The Pas Region	Northern Region
Hiking Trail Information and Maps	Adequate	38.4	57.1	58.8	20.0	-	40.0	28.6
	Inadequate	11.6	-	11.8	-	-	20.0	21.4
	Indifferent	50.0	42.9	29.4	80.0	100.0	40.0	50.0
Interpretive Nature Centres	Adequate	39.5	66.7	58.3	40.0	-	80.0	42.9
	Inadequate	2.0	-	-	-	-	-	14.3
	Indifferent	58.5	33.3	41.7	60.0	100.0	20.0	42.8
Lookout Points and Towers	Adequate	40.1	66.7	92.3	40.0	-	80.0	42.9
	Inadequate	9.5	16.7	-	-	-	-	21.4
	Indifferent	50.4	16.6	7.7	60.0	100.0	20.0	35.7
Number and Variety of Bicycle Paths	Adequate	27.5	14.3	14.0	28.6	50.0	12.5	16.7
	Inadequate	24.6	-	2.3	-	-	-	16.7
	Indifferent	47.9	85.7	83.7	71.4	50.0	87.5	66.6
Bicycle Path Information and Maps	Adequate	52.5	100.0	37.5	50.0	100.0	33.3	14.3
	Inadequate	20.0	-	-	-	-	-	42.9
	Indifferent	27.5	-	62.5	50.0	-	66.7	42.8
Number and Variety of Horseback Riding Trails	Adequate	54.3	100.0	66.7	50.0	-	-	-
	Inadequate	22.9	-	11.1	-	-	-	33.3
	Indifferent	22.8	-	22.2	50.0	100.0	-	66.7
Horseback Riding Trail Information and Maps	Adequate	52.9	50.0	100.0	100.0	-	-	-
	Inadequate	27.5	-	-	-	-	-	-
	Indifferent	19.6	50.0	-	-	-	-	100.0
Serviced Beaches	Adequate	75.2	75.0	77.4	72.0	50.0	63.2	60.0
	Inadequate	21.4	25.0	21.0	20.0	50.0	36.8	32.0
	Indifferent	3.4	-	1.6	8.0	-	-	8.0
Swim Changing Facilities	Adequate	70.6	70.0	81.4	78.3	50.0	57.9	56.0
	Inadequate	21.4	30.0	16.9	13.0	50.0	36.8	40.0
	Indifferent	8.0	-	1.7	8.7	-	5.3	4.0

TABLE 93 - Continued

Facility		Percent						
		Winnipeg Region	Winkler Region	Brandon Region	Dauphin Region	Interlake Region	The Pas Region	Northern Region
Beach Supervision and Safety Measures	Adequate	70.1	55.0	71.2	40.9	100.0	63.2	68.0
	Inadequate	21.0	35.0	27.1	50.0	-	36.8	28.0
	Indifferent	9.0	10.0	1.7	9.1	-	-	4.0
Marinas for Fishing Boats and Equipment Rentals	Adequate	25.0	23.1	18.8	22.2	-	42.1	14.3
	Inadequate	5.4	23.1	-	-	-	5.3	-
	Indifferent	69.6	53.8	81.2	77.8	-	52.6	85.7
Fishing Boat Launching Ramps	Adequate	68.8	100.0	95.7	94.4	-	87.5	68.2
	Inadequate	7.4	-	-	-	-	6.3	4.5
	Indifferent	23.8	-	4.3	5.6	-	6.2	27.3
Sailboat Mooring Facilities	Adequate	71.9	-	100.0	-	-	-	-
	Inadequate	12.5	-	-	-	-	-	-
	Indifferent	15.6	-	-	-	-	-	-
Sailboat Launching Ramps	Adequate	84.4	-	100.0	-	-	-	-
	Inadequate	9.4	-	-	-	-	-	-
	Indifferent	6.2	-	-	-	-	-	-
Number and Variety of Canoe Routes	Adequate	44.0	28.6	22.2	40.0	-	10.0	20.0
	Inadequate	6.9	-	-	-	-	-	10.0
	Indifferent	49.1	71.4	77.8	60.0	-	90.0	70.0
Canoe Route Information and Maps	Adequate	41.1	42.9	30.0	-	-	-	12.5
	Inadequate	5.6	-	5.0	-	-	-	12.5
	Indifferent	53.3	57.1	65.0	100.0	-	100.0	75.0
Power Boat Launching Ramps	Adequate	73.9	100.0	92.3	50.0	-	83.3	66.7
	Inadequate	16.2	-	7.7	50.0	-	16.7	-
	Indifferent	9.9	-	-	-	-	-	33.3
Power Boat Docking Facilities	Adequate	79.8	100.0	90.9	100.0	-	80.0	66.7
	Inadequate	9.6	-	9.1	-	-	20.0	-
	Indifferent	10.6	-	-	-	-	-	33.3

TABLE 93 - Continued

Facility		Percentage						
		Winnipeg Region	Winkler Region	Brandon Region	Dauphin Region	Interlake Region	The Pas Region	Northern Region
Number and Variety of Cross-country Skiing and Snowshoeing Trails	Adequate	61.0	75.0	69.2	40.0	-	50.0	66.7
	Inadequate	25.6	-	11.5	-	-	-	22.2
	Indifferent	13.4	25.0	19.2	60.0	100.0	50.0	11.1
Cross-country Skiing and Snowshoeing Trail Information and Maps	Adequate	58.3	71.4	78.9	50.0	-	33.3	37.5
	Inadequate	21.9	14.3	15.8	-	-	33.3	25.0
	Indifferent	19.9	14.3	5.3	50.0	100.0	33.4	35.5
Cross-country Skiing and Snowshoeing Warm-up Facilities	Adequate	58.9	100.0	77.8	100.0	-	100.0	50.0
	Inadequate	22.5	-	22.2	-	-	-	37.5
	Indifferent	18.5	-	-	-	100.0	-	12.5
Cross-country skiing and Snowshoeing Equipment Rentals	Adequate	48.6	42.9	55.6	-	-	33.3	33.3
	Inadequate	3.4	-	-	-	-	-	-
	Indifferent	47.9	57.1	44.4	100.0	100.0	66.7	66.7
Number of Downhill Skiing Areas	Adequate	49.1	50.0	71.4	-	-	100.0	20.0
	Inadequate	45.5	50.0	28.6	100.0	-	-	80.0
	Indifferent	5.4	-	-	-	-	-	-
Downhill Skiing Warm-up Facilities	Adequate	71.7	-	100.0	100.0	-	100.0	100.0
	Inadequate	24.5	100.0	-	-	-	-	-
	Indifferent	3.8	-	-	-	-	-	-
Downhill Skiing Equipment Rentals	Adequate	61.5	50.0	83.3	-	-	100.0	40.0
	Inadequate	7.7	-	-	100.0	-	-	20.0
	Indifferent	30.8	50.0	16.7	-	-	-	40.0
Snowsledding-Tobogganing Runs	Adequate	63.6	90.9	77.3	50.0	100.0	63.6	66.7
	Inadequate	22.9	-	4.5	20.0	-	27.3	11.1
	Indifferent	13.5	9.1	18.2	30.0	-	9.1	22.2
Number of Outdoor Ice Skating Areas	Adequate	74.5	60.0	81.1	80.0	100.0	50.0	88.9
	Inadequate	21.8	40.0	18.9	20.0	-	50.0	11.1
	Indifferent	3.7	-	-	-	-	-	-

TABLE 93 - Continued

Facility		Percentage						
		Winnipeg Region	Winkler Region	Brandon Region	Dauphin Region	Interlake Region	The Pas Region	Northern Region
Outdoor Ice Skating Warm-up Facilities	Adequate	80.3	60.0	85.7	88.9	100.0	83.3	87.5
	Inadequate	14.9	20.0	11.4	-	-	16.7	12.5
	Indifferent	4.8	20.0	2.9	11.1	-	-	-
Number and Variety of Snowmobile Trails	Adequate	46.8	23.1	37.5	33.3	100.0	42.9	20.0
	Inadequate	5.3	7.7	-	6.7	-	14.3	-
	Indifferent	47.9	69.2	62.5	60.0	-	42.8	80.0
Access to Snowmobile Trails	Adequate	69.2	100.0	91.7	83.3	100.0	75.0	25.0
	Inadequate	4.6	-	-	16.7	-	25.0	-
	Indifferent	26.2	-	8.3	-	-	-	75.0
Snowmobiling Warm-up Facilities	Adequate	59.7	100.0	91.7	83.3	100.0	50.0	25.0
	Inadequate	8.1	-	8.3	-	-	25.0	-
	Indifferent	32.2	-	-	16.7	-	25.0	75.0
Off-road Motoring Trails and Areas	Adequate	50.0	100.0	-	100.0	-	-	50.0
	Inadequate	40.9	-	-	-	-	-	-
	Indifferent	9.1	-	-	-	-	-	50.0
Access to Off-road Motoring Trails and Areas	Adequate	56.3	100.0	-	100.0	-	-	100.0
	Inadequate	31.3	-	-	-	-	-	-
	Indifferent	12.5	-	-	-	-	-	-
Number and Variety of Golf Courses	Adequate	76.7	100.0	78.4	100.0	100.0	57.1	66.7
	Inadequate	17.2	-	18.9	-	-	42.9	33.3
	Indifferent	6.1	-	2.7	-	-	-	-
Number and Variety of Miniature Golf Courses	Adequate	63.6	50.0	50.0	-	-	100.0	50.0
	Inadequate	9.3	-	16.7	-	-	-	16.7
	Indifferent	27.1	50.0	33.3	-	-	-	33.3
Number of Tennis Courts	Adequate	60.8	75.0	68.8	100.0	-	66.7	14.3
	Inadequate	37.2	25.0	31.3	-	-	33.3	85.7
	Indifferent	2.0	-	-	-	-	-	-
Municipal Services for Cottages	Adequate	85.7	66.7	95.8	88.9	-	75.0	92.3
	Inadequate	6.3	33.3	4.2	11.1	-	25.0	7.7
	Indifferent	8.0	-	-	-	-	-	-

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