

AN INTERIM ZONING PLAN: A Case Study of the Manitou Planning  
Area

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Area**

**BY**

**LARRY FRANK SUKAVA**

**A dissertation submitted to the Faculty of Graduate Studies of  
the University of Manitoba in partial fulfillment of the requirements  
of the degree of**

**MASTER OF ARTS**

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"Wilderness is a resource which can shrink but never grow. Invasions can be arrested or modified in a manner to keep an area useable either for recreation or science or wildlife. But the creation of a new wilderness in the true sense is impossible. Any wilderness program is a rear guard action through which retreats are reduced to a minimum."

Aldo Leopold

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<u>TABLE OF CONTENTS</u>	<u>PAGE</u>
INTRODUCTION	I
PART I: NEED FOR INTERIM ZONING	1
PART II: METHODOLOGY	3
PART III: THE PLANNING AREA, TERMS OF REFERENCE AND GENERAL POLICY	
THE PLANNING AREA	9
TERMS OF REFERENCE	9
THE GOAL	9
GOAL STATEMENT	11
BROAD OBJECTIVES	12
PART IV: BACKGROUND DATA	13
HISTORICAL OVERVIEW	13
THE ENVIRONMENT	16
a. Geology	16
b. Geomorphology	18
c. Climate	24
d. Flora	24
e. Fauna	26
THE ECONOMIC BASE OF THE MANITOU PLANNING AREA	27
PRESENT LAND-USE	30
a. Land Tenure	30
b. Forestry	31
c. Mining	39
d. Commercial Fishing	39
e. Trapping	41
f. Recreation	41
SUMMARY OF PRESENT DEVELOPMENT	54
RESOURCE CAPABILITY	54
a. Agricultural Capability	56
b. Forest Capability	56
c. Mineral Capability	58
d. Wildlife Capability	60
e. Fish Capability	63
f. Recreation Capability	64

<u>MAPS:</u>	<u>PAGE:</u>
Map 1: The Planning Area	10
Map 2: Geology	17
Map 3: Surficial Geology	19
Map 4: Landform Classes	20
Map 5: Watersheds	22
Map 6: Climatic Site Regions	25
Map 7: Timber Management	32
Map 8: Proposed Road Network	35
Map 9: Projected Logging Areas	37
Map 10: Patent Mining Claims	40
Map 11: Trapline Licences and Incomes	42
Map 12: Commercial Resorts	44
Map 13: Outpost Camps	46
Map 14: Cottages	47
Map 15: Canoe Routes	50
Map 16: Access Points	51
Map 17: Lake Access	52
Map 18: Present Degree of Development	55
Map 19: Forest Capability	57
Map 20: Mineral Capability	59
Map 21: Moose Capability	61
Map 22: Deer Capability	62
Map 23: Warmwater Species Angling Capability	65
Map 24: Coldwater Species Angling Capability	66
Map 25: Recreation Capability	67
Map 26: 1970 Recreational Land-Use Zoning Plan	69
Map 27: The Interim Zoning Plan	77
<u>TABLES:</u>	
Table 1: Provincial Landform Classes	21
Table 2: A Comparison of the Climatic Features of the 4S and 5S Climatic Regions	24

<u>TABLE OF CONTENTS....continued</u>	<u>PAGE</u>
OTHER PLANS	68
ISSUES AND PROBLEMS	70
PART V: PLANNING STRATEGY	73
PART VI: THE INTERIM ZONING PLAN	76
SUMMARY	86
REFERENCES	92

<u>APPENDICES:</u>	<u>PAGE</u>
Appendix A: Development Unit Scoring System	89
Appendix B: Degree of Development Classes	90
Appendix C: Land Use Codes	90
Appendix D: Commercial Fishing Catch 1965-1973	91
Appendix E: Trapline Licences and Incomes	91

## INTRODUCTION:

It has become apparent that detailed planning of land is essential if some degree of compatibility between public demands, land-uses and natural resources is to be achieved. As human encroachment on the undeveloped landscapes of Northwestern Ontario continues, pressures are exerted upon a complex of natural resources making up the environment. These pressures are not only confined to small geographic areas but also affect large portions of the region through a complex of natural factors.

People are becoming increasingly aware of the need to project and program land development and management some distance into the future in order to maintain and in some cases, to improve the quality of the natural environment, as well as, satisfy some public demands for the use of these lands. As this awareness spreads, it is important that land zoning plans consider innovative and regulatory forms of land development and management to achieve specified goals and objectives.

This case study is a proposal for the development and management of one area of Northwestern Ontario - the Manitou Planning Area. It was necessitated by the development of the Fort Frances to Dryden highway or the Manitou Road as it is known locally. Unfortunately, the decision to conduct this study was made after the route for the Manitou Road had already been selected and, as a result, the potential impact land-use planning might have had along the Manitou Road will never be fully realized. Suggestions will, however, be made with regard to the future development and management of the area in spite of the fact that some land-uses will be chiefly governed by the selected route.

Outlined in this case study is one approach to a land zoning plan. It includes a methodology, an analysis of the need for an interim zoning plan, planning goals and objectives, background data, alternative planning concepts and the interim zoning plan.

Part I is a brief discussion of the need for interim zoning for the Manitou Planning Area. Part II is an outline of the data collection and analysis methodology to be used in this case study. Part III is an outline of the planning area, the terms of reference and the general policy which the study will follow in its analysis of the planning area's resources and resource uses. Part IV is the collection and analysis of data relevant to this study including a historical overview, resources, resource uses, resource capabilities and some trends. Part V evaluates three general planning strategies to form the parameters of the interim zoning plan while Part VI proposes an interim zoning plan to be implemented until the completion of a more detailed plan of the planning area.

PART I: NEED FOR INTERIM ZONING

Although land-use planning and zoning have for some time been integral parts of the land development and management strategy of the Ontario Ministry of Natural Resources, it has become increasingly apparent that the Ministry cannot cope with current pressures upon crown lands without the aid of a rapid method of analyzing background data and preparing regulatory forms of zoning in lieu of detailed planning studies. To produce detailed planning studies covering various planning parameters, large amounts of money, time and staff must be available. This is currently not the case in Ontario. As an answer to the required reactionary planning to which the Ministry must become accustomed, interim zoning measures designed to protect the environment while accommodating some of the public demand must be prepared. Since Northwestern Ontario is undergoing substantial expansion with regard to exploitation of its natural resources by industrial and commercial and public recreation sectors without the aid of comprehensive land-use development and management guidelines, it seems appropriate that a case study of an approach take place there.

Presently, the Ontario Ministry of Natural Resources is endeavouring to complete the Ontario Strategic Land-Use Plan for Northwestern Ontario. However, this plan is not expected until the late 1970's barring severe drawbacks to its progress.

The Manitou Planning Area of Northwestern Ontario centred around the construction of the Manitou Road between Dryden and Fort Frances is an area wherein industrial and commercial and public recreation access has to date been limited. Hence, there has been no need for regulatory forms of comprehensive planning in the past. However, this is not the case considering the anticipated future amount and form of land-use generated by road construction.

Generally, an interim zoning plan for the Manitou Planning Area should provide for overall co-ordination of land-use to reduce

land-use conflict. Recognizing that an in-depth evaluation of planning parameters considered essential to detailed planning cannot be carried out, the interim zoning plan will endeavour to provide for future development and management flexibility by providing: a maximum choice of environments for varying demands; a stable and desirable environment in harmony with the natural surroundings; a pattern of development which protects vegetation, sensitive features and social and economic stability; and adequate amounts of improved and unimproved land for public needs. It should also be recognized that planning for the Manitou Planning Area is to be carried out in relative isolation and out of context with the remaining land mass in Northwestern Ontario as a result of the lack of a guiding regional plan. To keep from causing irreparable damage to the environment or promoting land-use conflict, development and management guidelines will purposefully fall far below safe carrying capacities.

PART II: METHODOLOGY

This case study will be based on a summary analysis of detailed resource and land-use inventories conducted by the author during the period of 1970 to 1973. The interim zoning plan's proposed development and management guidelines will be assessed against their potential impact upon the planning area's environment to ensure the protection of unique, representative and sensitive features or resources. The future potential of the Manitou Planning Area will be interpreted within the context of land-uses presently occurring in the area, the area's natural resources, the proposed road network and lands adjacent to the planning area to ensure that the best potential of the area is established for the well being of natural resources and the local area and its residents in advance of the anticipated human impact generated upon completion of the Manitou Road.

It should be stressed that this case study will not be a complete planning process but rather one of a limited scale made necessary by rapid road construction, and limited staff, time and budgets. This study is based on data available at the time of the study and cannot effectively account for sudden land tenure, physical, social or economic change directly influencing land-uses. In view of possible changes, it is recommended that the proposed interim zoning plan be reviewed at an appropriate time to ensure that its stated development and management guidelines are met.

Six dominant philosophical underpinnings associated with land-use planning will influence the concept of this case study. These are:

- a. Land-use plans are made to achieve specified goals and objectives.
- b. Planning is an ongoing process.
- c. Land-use plans are designed for the long term.

- d. Land-use plans need not necessarily make maximum use of the best resources to achieve best results.
- e. Land-use plans should incorporate some degree of flexibility to accommodate sudden land tenure, physical, social, and economic change.
- f. Land-use plans should allocate resources and regulate land-uses so that the optimum use is made of the land as it relates to plan goals and objectives.

To achieve its goal and objectives, the single most important consideration of this case study will be a designated form and degree of development for each land-use zone. This designated form and degree of development will relate directly to existing forms of land-use, resource capabilities and access.

In order to conduct an efficient and organized planning study under limitations placed on its scope, it will be necessary to collect and analyze only relevant background data on natural resources and their capabilities and present and proposed land-uses. The following is a checklist of information considered relevant to this case study.

a. THE ENVIRONMENT:

1. Geology and Geomorphology:

Location of landforms, surficial geology and topographic features will be by air photo interpretation supplemented by field inspection. This analysis will form the basis of the zoning plan in delineating watershed boundaries as planning units or zones, as well as, lands having the greater physical capability for intensive development.

2. Climate:

Available data will be analyzed. The general climatic conditions will be noted by field inspection. However, the majority of meteorological data will be derived from NOTES ON THE USE OF LAND TYPE MAPS OF THE KENORA DISTRICT by D.E. Honeyborne.

3. Flora:

The general vegetative conditions will be noted by field inspection.

4. Fauna:

A listing of fauna residing in the area will be compiled through discussion with local residents and conservation officers. Wildlife will be observed on field inspections.

b. THE ECONOMIC BASE OF THE PLANNING AREA:

A general overview of the economic importance of the Manitou Planning Area will be prepared.

c. THE RESOURCE CAPABILITY:

1. Agriculture, Forestry, Mining, Fish and Wildlife:

Ontario Land Inventory data will be utilized to determine high, moderate and low capability areas for forestry. Mining information regarding high, moderate and low capability areas will be determined through discussion with Ministry of Natural Resources field survey crews

studying geologic conditions in the area. Fisheries and wildlife capabilities will be determined through discussions with local residents, conservation officers and others familiar with the area. These capabilities will be shown as high, moderate and low on the basis of animal populations and fish catch.

d. THE HISTORY:

Historical data significant to the Manitou Planning Area will be derived from a local history written by A. Pitt entitled, THE MANITOU.

e. PRESENT LAND-USE:

1. Timber licences, Patent Properties, Land-Use Permits, Traplines and Unauthorized Occupations:

A file search of available data will be conducted at the Ministry of Natural Resources offices at Dryden, Fort Frances and Kenora. A field inspection will also be carried out regarding the unauthorized occupation of crown land.

f. THE FORESTRY:

1. Ontario-Minnesota Pulp and Paper Co., Ltd., and Dryden Pulp and Paper Co., Ltd.:

Forestry operation data and plans will be derived from the five and twenty year operating and management plans prepared by the two companies operating within the confines of the Manitou Planning Area. This data will be supplemented by field inspection and discussion with Ministry of Natural Resources management foresters.

g. THE MINING:

A file search of available data on mining will be conducted at the Ministry of Natural Resources offices at Dryden, Fort Frances and Kenora. A field inspection will also be

carried out regarding the location of abandoned mines.

h. THE TRAPPING:

A file search of available data will be conducted at the Ministry of Natural Resources offices at Dryden, Fort Frances and Kenora.

i. THE COMMERCIAL FISHING:

A file search of available data will be conducted at the Ministry of Natural Resources offices at Dryden, Fort Frances and Kenora.

j. THE RECREATION:

1. Commercial, Cottage and Crown land:

A file search of available data will be conducted at the Ministry of Natural Resources offices at Dryden, Fort Frances and Kenora and will be supplemented by field inspections.

k. OTHER PLANS:

A file search of available data will be conducted at the Ministry of Natural Resources offices at Dryden, Fort Frances and Kenora.

1. ISSUES AND PROBLEMS:

Data will be provided by field inspection, study of other plans, and through discussions with people occupied in a range of land-use activities in the Manitou Planning Area.

The background data will be analyzed to determine:

- a. the form and degree of present development through application of a development unit scoring system;
- b. the effect other plans may have on the area;
- c. an overview of the resources capabilities and possible future development and management strategies; and
- d. the effect recognized issues and conflicts may have on future land development and management.

An overview and recommendation on three possible strategies for land-use allocation or alternative planning concepts will be considered in this study. These are: maintain the status quo, moderate development, rapid development.

The recommended alternative concept will subdivide the Manitou Planning Area into management zones or planning units based upon watershed boundaries with the exception of a major road corridor considered necessary for the Manitou Road. The development and management guidelines for each zone will consider:

1. size;
2. known sensitive or strategic features;
3. the form and degree of existing development;
4. a proposed management policy;
5. proposed additional development;
6. proposed development guidelines; and
7. an ultimate form and degree of development to take place during the time span of this plan.

PART III: THE PLANNING AREA, TERMS OF REFERENCE AND GENERAL POLICY

THE PLANNING AREA:

The Manitou Planning Area lies within the administrative districts of Dryden and Fort Frances belonging to the Northwestern Ontario Planning Region. Approximate boundaries for this area are: to the south, 48'47''N; to the north, 49'43''N; to the east, 92'30''W; and to the west, 93'22''W.

The northern extremity of the Manitou Planning Area borders on the surveyed territory of Van Horne Township of Dryden District. The southern extremity lies approximately one mile north of Crow-neck Inlet of Rainy Lake to avoid as much as possible future conflict with the proposed Rainy Lake Management Plan.

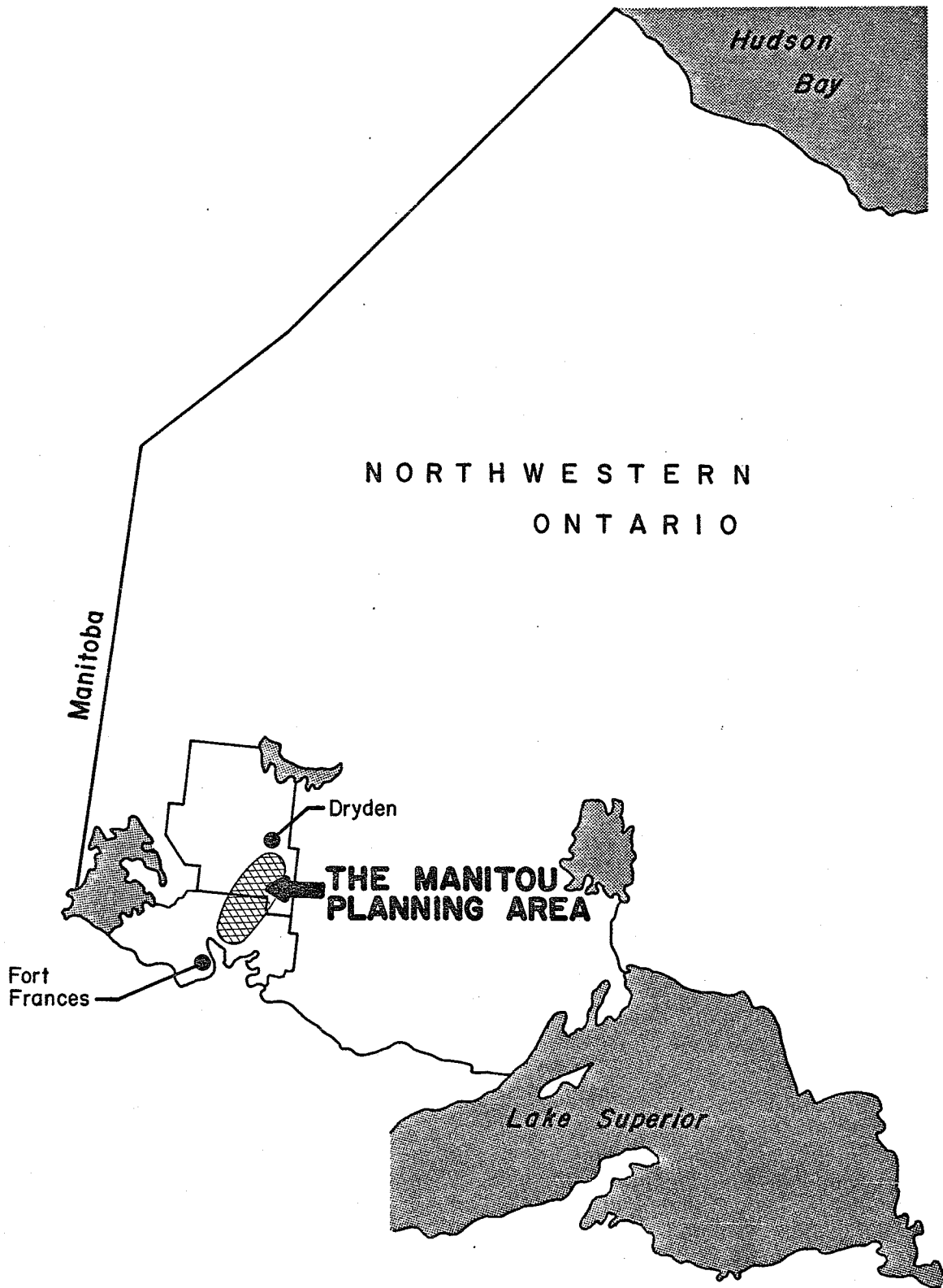
Including water bodies, the Manitou Planning Area encompasses about 845 square miles along 78 miles of the proposed Dryden to Fort Frances highway or the Manitou Road.

TERMS OF REFERENCE:

This study is to be an interim, comprehensive zoning plan for the Manitou Planning Area. As such its main intent will be to protect a complex of biotic, edaphic, and climatic factors making up environment by providing for the strategic allocation of land for a variety of uses.

THE GOAL:

The intent of this case study and the resulting interim zoning plan will be to protect the natural environment of the Manitou Planning Area through multiple-use zoning for general recreation, commercial recreation, commercial service, resource extraction, and public recreation.



**MAP 1: THE PLANNING AREA**

GOAL STATEMENT:

Zoning will endeavour to control the unregulated use of crown lands and natural resources of the Manitou Planning Area through planned development for the human and economic needs of the populace for an interim period pending the completion of the Ontario Strategic Land-Use Plan. These human and economic needs will apply primarily to the citizens of the immediate area and in general to the citizens of Northwestern Ontario.

The following definition of terms will facilitate understanding of the term 'Multiple-use' as applied to this study.

a. General Recreation

The term general recreation refers essentially to those activities occurring in the outdoor (natural) environment and to those which are directly related to the environment. This does not include those activities considered to be commercial or public but rather includes combined uses such as public crown land and cottaging with the latter requiring disposition of land to private interests.

b. Commercial Service

The term commercial service refers to those activities and facilities considered to be of a commercial nature and not directly related to the natural environment such as a service station.

c. Resource Extraction

The term resource extraction refers to those activities engaged in the extraction of natural resources for the benefit of the economy such as logging.

d. Public Recreation

The term public recreation refers to those activities and facilities which occur in and are directly related to the outdoor (natural) environment such as canoe routes, access points, public beaches and provincial parks. These

are planned for the use of the general public and do not require disposition of land to private interests.

**BROAD OBJECTIVES**

The broad objectives to be achieved by the interim zoning plan for the Manitou Planning Area Are:

- a. Environment: To maintain a wilderness quality;
- b. Forestry: To ensure that the forest industry continues to make its optimum contribution to the regional economy;
- c. Recreation: To eliminate unregulated commercial and public recreational use of crown lands by providing for strategic developments;
- d. Trapping: To ensure that this industry remains a viable economic component of the regional economy;
- e. Commercial Fishing: To ensure that this industry continues without conflict with sport-fishing in areas where it is of economic importance;
- f. Mining: To ensure that the mining industry can carry out geologic exploration and development of mineral finds for its optimum contribution to the regional economy.

#### PART IV: BACKGROUND DATA

##### HISTORICAL OVERVIEW:

The first white man to explore the Rainy Lake area of Northwestern Ontario was Jacques de Noyon in 1688. Although de Noyon did not actually enter the Manitou Planning Area, he did open the Rainy River route for others to follow, as they later did in 1732 in the form of the fur trade with Hudson's Bay posts in the mid-Manitou Lakes area, at Wabigoon to the north of the planning area, and Fort Frances.

The first extensive exploration of the resources of the Manitou area occurred with the advent of the timber trade in the late 1880's and 1890's when the initial attempt was made to harvest the forests around the Manitou Lakes. The Rat Portage Lumber Company is credited with carrying out this task by floating logs to Rainy Lake via the Manitou River. As a direct result of this harvest to satisfy eastern market demands for red and white pine, few such stands exist today.

Gold Rock located on the northern tip of Upper Manitou Lake is remnant of another era, the Manitou gold rush.

The first geologic surveys in the Manitou Planning Area were carried out by Robert Bell from 1880 to 1882. Following the gold strikes at Shebandowan and Rainy Lake, it was thought that Manitou should have some mining potential. Gold was in fact discovered at Gold Rock resulting in an intermittent development of numerous finds throughout the Manitou Lakes system between 1895 and 1912. Generally, development took the form of numerous shafts of shallow depth, stamp mills and a seven mile government portage road from Gold Rock to Minnehaha Lake to the north. Most mines operated only for a short period of time and did not produce the expected wealth. In fact, the Pioneer Steam Navigating Company which operated a shuttle service for miners and the area's many visitors between the portage landing at Minnehaha Lake and Wabigoon on the Canadian Pacific Railway turned out to be the

most economical prospect of the gold rush era.

The mining activity of the Manitou gold rush era is best expressed by Alred Pitt in his book, THE MANITOU (1938) as follows:

Meantime in the manitou, the Big Master was running, the Jubilee was discovered, the Lower and Upper Neepawa were working, and the Victory and the 20th Century and the Northern Queen were more than prospects, and all the country was afire with finds and men were burrowing everywhere.<sup>1</sup>

From time to time, a road from Fort Frances to some place near Wabigoon has been talked of, and everyone shrugs at this impossible thing, and yet forty years ago a sixty foot road was in existence between Rainy Lake and the Manitou and a thirty foot road from the Manitou to Dinorwic.<sup>2</sup>

A general decline of gold mining activity lasting until the gold re-evaluation of 1933 and 1934 combined with the discovery of the Porcupine and other more important strikes meant the end of the Manitou gold rush. Although one of the older gold producing areas of Ontario, the Manitou produced very little wealth in comparison to other finds because of many ill-advised investments and the area's relative isolation from market centres. As a result of other finds, the population of Gold Rock diminished from an estimated 1200 in 1900 to the present 10 permanent residents.

The Laurentian and Big Master Mines were somehow able to survive the decline in gold prices and the attraction of other finds until 1949 when operating costs became too great. The combined production of the two mines is estimated at \$4,641,140.

After the decline of mining, tourism which had existed in the Manitou since the first visitors frequented the area's mines in the late 1880's grew in importance. Resorts catering to longer

1. Pitt, THE MANITOU, page 8

2. Ibid, page 13

vacations had in fact existed prior to the Second World War but did not expand the basis of their operation until the late 1940's which brought about a substantial increase in personal incomes, and leisure time as well as improved airplane access. All major resorts were ultimately located on the Manitou Lakes which held the greatest potential to support a continued tourist industry. Fly-in outpost camps owned by people outside of the Manitou area were established at approximately the same time in areas inaccessible by land or water to the east of the Manitou Lakes which offered good sport fishing and hunting of wilderness quality.

Private cottage development occurred at about the same time as the commercial resort. Development took the form of dispersed cottages throughout the Manitou Lakes system with the exception of a small cluster at Gold Rock. No cottages have been built since the early 1960's.

Timber extraction has always been one of the most extensive forms of activity in the Manitou Planning Area and has generally paralleled the development and subsequent increase in demand for timber of the pulp and paper mills at Dryden and Fort Frances. Accessibility to timber reserves has in the past played a large part in the exploitation of timber resources by restricting the range of logging to shorelands and areas wherein forest access roads could be readily built. The construction of the Johnar and Jonas Lake roads to the northwest of Upper Manitou Lake by the Dryden Paper Company in the early 1960's and the southerly portion of the Manitou Road by the Ontario-Minnesota Pulp and Paper Company in the late 1960's brought about the first large scale, mechanized logging operations unlike those carried out by the Rat Portage Lumber Company in the 1970's.

## THE ENVIRONMENT

### a. Geology

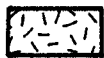
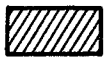

The Manitou Planning Area is situated within the southwestern portion of the Canadian Shield comprising about 0.04% of the total shield area.

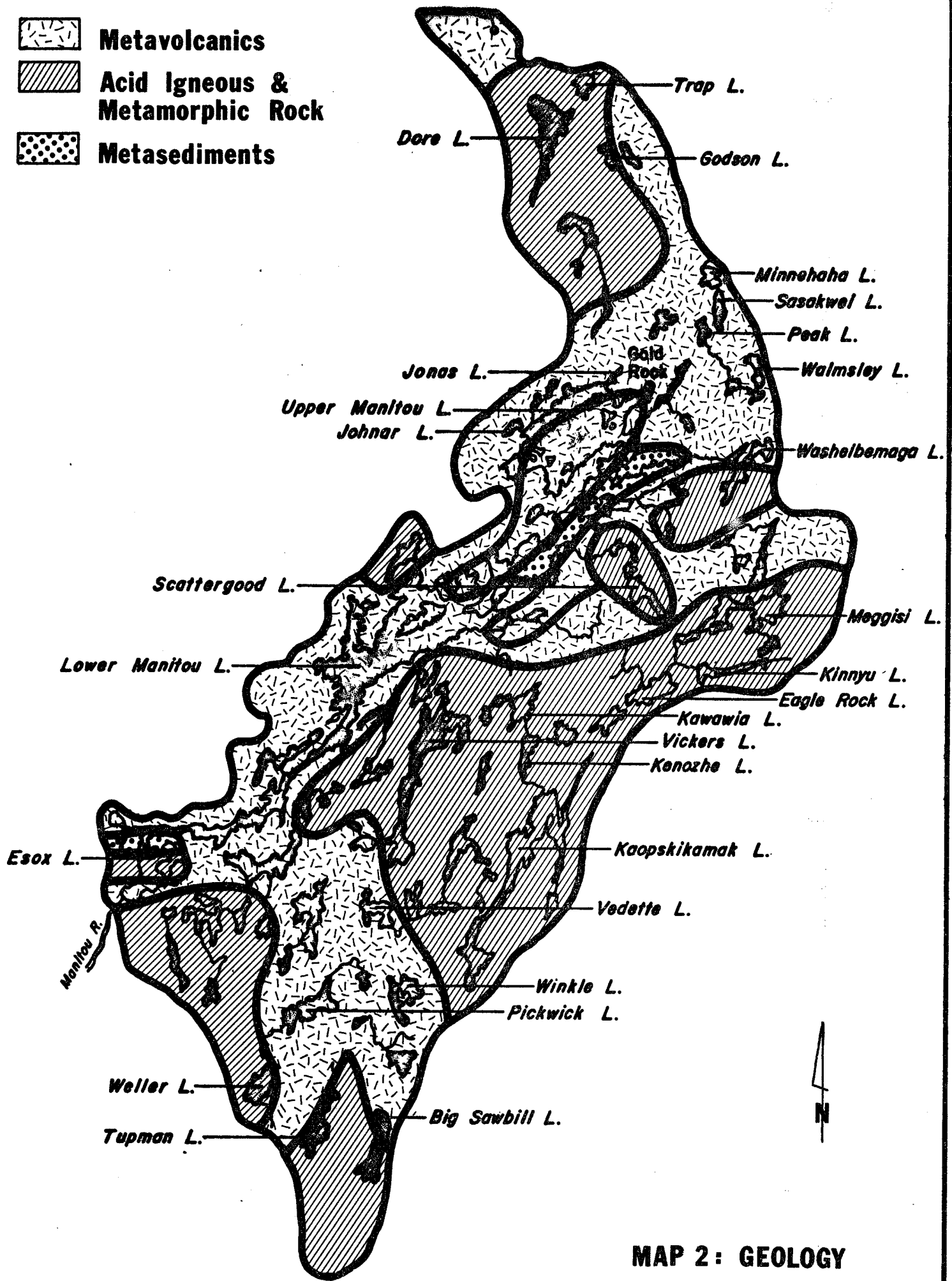
The geology of the Manitou Planning Area shows evidence of old volcanic activity, faulting, folding, glaciation, isostatic readjustment, and coverage by post glacial Lake Agassiz. The bedrock of the northern portion of the Manitou Lakes is considered to be of pre-Cambrian origin with the most ancient lava flows being of great thickness, steeply inclined, and inserted between layers of sediments. These lava flows have been identified as Keewatin on the basis of age and similarity of grouping.

A variety of basic to ultrabasic intrusive rocks occurring as narrow sills, small and large bosses, and in a few cases containing what is believed to be inclusions appear in lava flows. These have been assigned to the Haileyburian era while intrusives into both the Keewatin and Haileyburian containing varieties of granitic masses ranging from diorite to granite have been assigned to the Algoman era.

To the south of Wabigoon Lake lying to the northeast of the Manitou Planning Area, are varved clay deposits covering the area's pre-Cambrian rock formations and indicating coverage by post glacial Lake Agassiz. North and south of this clay deposit are morainic deposits of Pleistocene origin. Of these, the most recent are intermittent swamps, and river and beach deposits.<sup>3</sup>

3. Notes on this section are derived from Satterly, GEOLOGY OF THE DRYDEN-WABIGOON AREA, page 7

-  **Metavolcanics**
-  **Acid Igneous & Metamorphic Rock**
-  **Metasediments**



**MAP 2: GEOLOGY**

Generally, rocks lying to the southeast and east of the Manitou Lakes have been identified as being of Keewatin origin. They consist of basic andesite lava flows with an occasional pillow structure to the east and agglomerate with tuff around Gold Rock townsite. Porphyritic rocks, common in the lava flows, are easily identified and can be traced for some distance as marker horizons in the volcanics. Basic and acid dikes found in both the lavas and tuffs contain sheared felsite which is often associated with gold bearing veins. These veins can vary from a few inches to over seventy feet. A few of the darker dikes can be classified as lamprophyre.<sup>4</sup>




b. Geomorphology

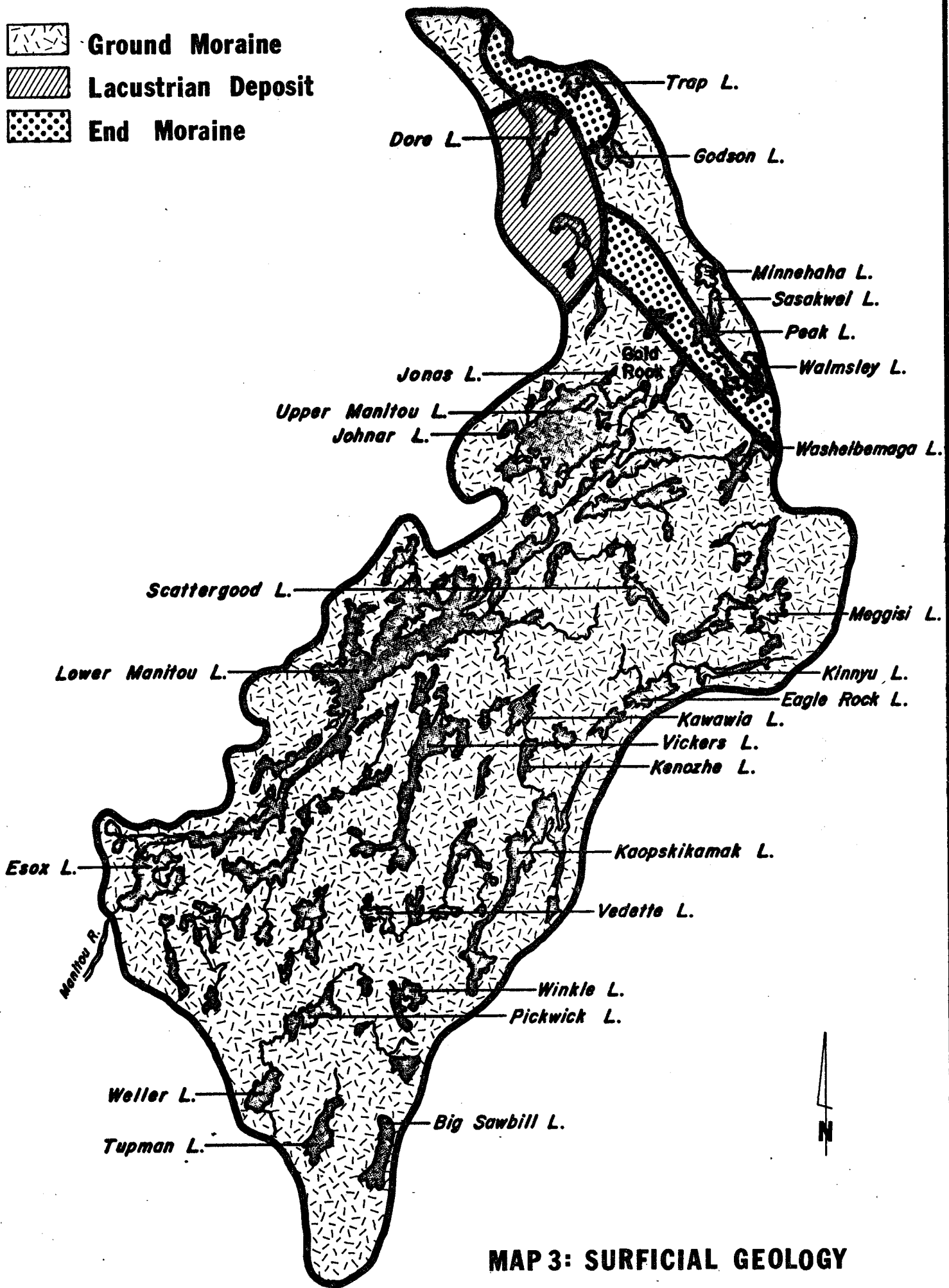
The geomorphology of the Manitou Planning Area has been greatly modified by the continental ice sheets of the Wisconsin era. The orientation of eskers and moraines indicate that the major ice movement was from the northeast with the more recent depositing clay in areas lying south of the Manitou Lakes.

Post glacial isostatic readjustment is responsible for the variety of landscapes occurring in the Manitou Planning Area. Steep, rocky outcrops are prevalent throughout the central portions of the planning area while more subdued topography is characteristic of the north and south portions. A range in elevation of about 600 feet results from a maximum elevation of 1750 FSL north of Megissi Lake and a minimum elevation of 1150 FSL north of Sturgeon Bay on Rainy Lake.

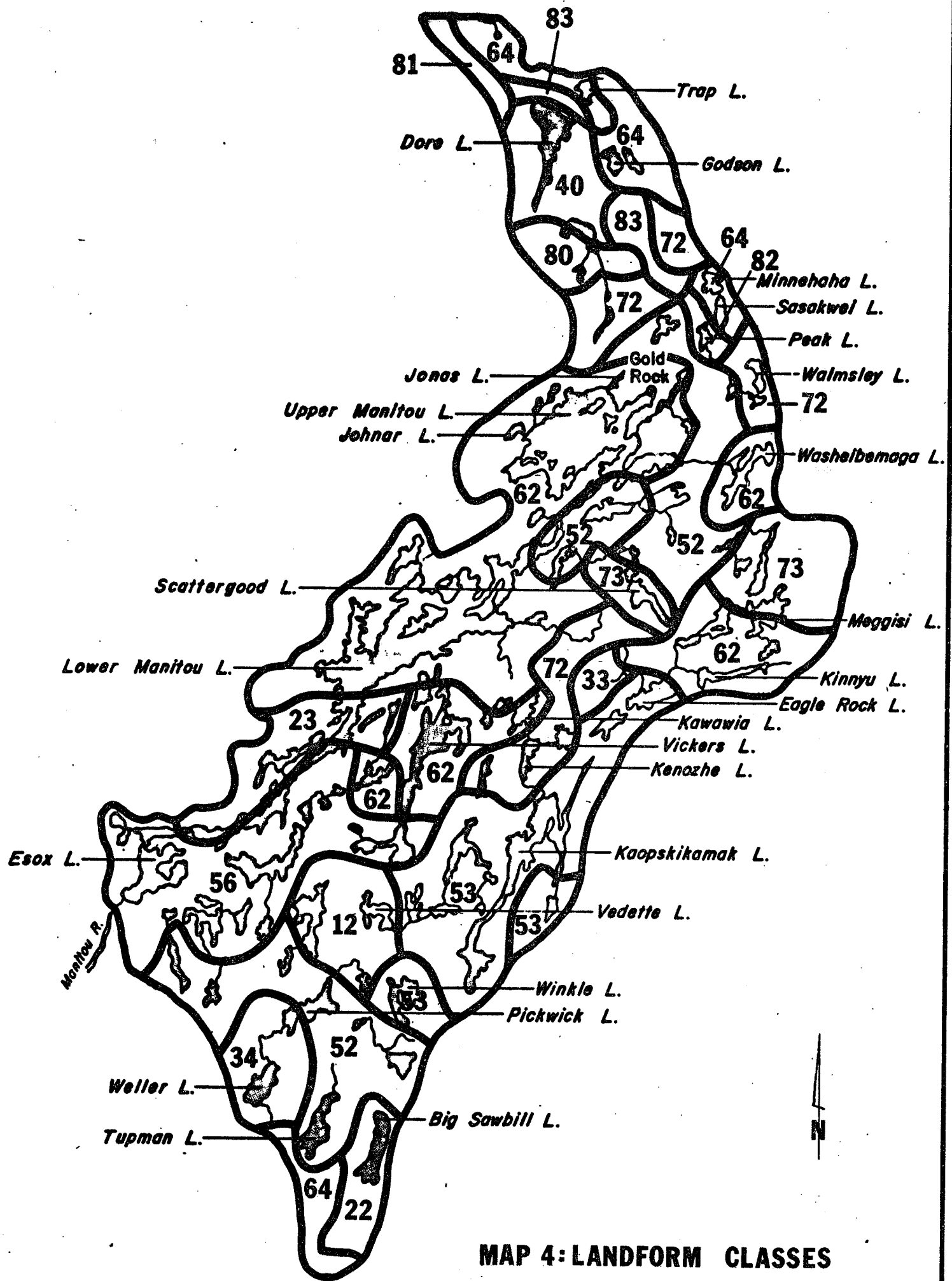
As a result of Lake Agassiz, a broad, varved clay belt in the northerly portion of the planning area varies considerably in depth creating gently rolling to flat areas when thick and exhibiting rocky outcrops when thin. A major morainic deposit in the form of a ridge is notable in an area northwest of Dore Lake to the southeast of Walmsley Lake. To the south of this

4. Notes on this section are derived from Thomson, SOME GOLD DEPOSITS NEAR GOLD ROCK, UPPER MANITOU LAKE, page 2

-  Ground Moraine
-  Lacustrian Deposit
-  End Moraine



**MAP 3: SURFICIAL GEOLOGY**



MAP 4: LANDFORM CLASSES

TABLE: 1

PROVINCIAL LANDFORM CLASSES

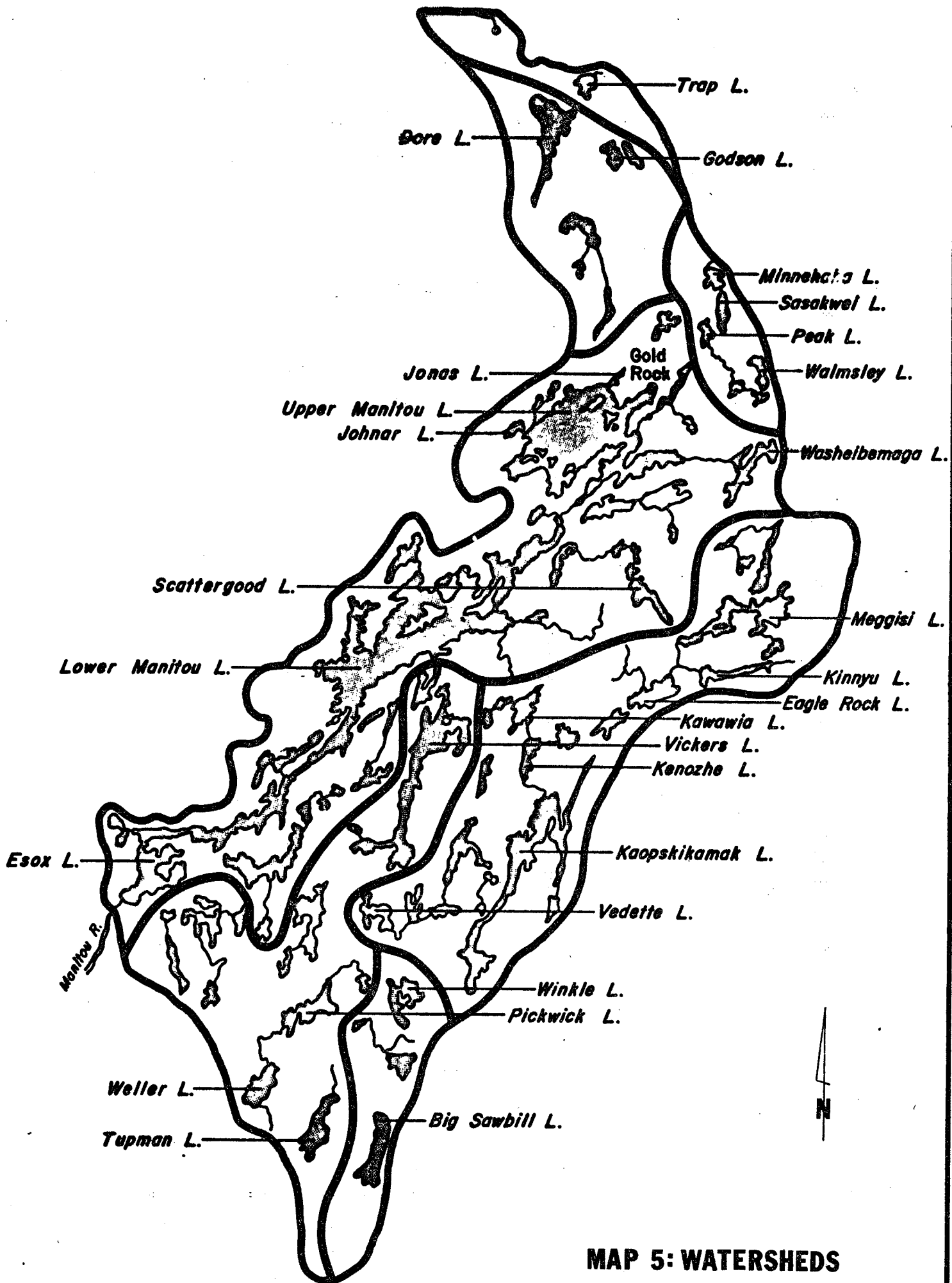
Weakly Broken Plains

<u>Unconsolidated Inorganic Material</u>	<u>Unit Number</u>			
	<u>Bare and Shallow</u>	<u>Shallow (with bare and some deep)</u>	<u>Deep and Shallow (with some bare)</u>	<u>Deep</u>
Sand (coarse and Medium)	11	21	31	41
Sand (fine and silty)	12	22	32	42
Sand (coarse to fine and silty)	13	23	33	43
Sand, with other materials	14	24	34	44
Loam	15	25	35	45
Loam, with other materials	16	26	36	46
Silt	17	27	37	47
Silt, with other materials	18	28	38	48
Clay	19	29	39	49
Clay, with other materials	20	30	40	50

Moderately Broken Uplands

<u>Unconsolidated Inorganic Material</u>	<u>Unit Number</u>			
	<u>Bare and Shallow</u>	<u>Shallow (with bare and some deep)</u>	<u>Deep and Shallow (with some bare)</u>	<u>Deep</u>
Sand (coarse and medium)	51	61	71	81
Sand (fine and silty)	52	62	72	82
Sand (coarse to fine and silty)	53	63	73	83
Sand, with other materials	54	64	74	84
Loam	55	65	75	85
Loam, with other materials	56	66	76	86
Silt	57	67	77	87
Silt, with other materials	58	68	78	88
Clay	59	69	79	89
Clay, with other materials	60	70	80	90

source: Ontario Land Inventory



**MAP 5: WATERSHEDS**

moraine, rugged hills ranging from 100 to 300 feet in height prevail.

All major lakes of the Manitou Planning Area occupying depressions owe their origins to the structure of underlying rocks as characterized by the elongated pattern of lakes which parallel a similar structure in rock formations. Some of the smaller lakes however occupying depressions in deeply-soiled areas do not exhibit the structural control of the larger lakes such as the Manitou Lakes, Megissi Lake and Bearpaw Lake. Generally, lakes occupying depressions in morainic deposits such as Peak Lake and Saskwei Lake owe their origin to differential erosion.

The Manitou Lake system is the single, largest water body in the Manitou Planning Area. It is drained by the Manitou River flowing south from Esox Lake to Rainy Lake. A water level of about 1216 FSL (North American Datum, 1927) is maintained by a dam located on the Manitou River.

All lakes within the Manitou Planning Area belong to the Lake of the Woods drainage basin.

c. Climate

The Manitou Planning Area is located in the 4S and 5S climate regions.<sup>5</sup> Site region 4S lies to the north and east of 5S as shown on Map 6: Climatic Site Regions.

The climatic features of the two climatic regions are compared in the following table.

Table 2: A Comparison of the Climatic Features of the 4S and 5S Climatic Regions<sup>6</sup>

<u>Climatic Feature</u>	<u>4S</u>	<u>5S</u>
mean annual temperature (F')	34-36	36-38
mean July temperature (F')	64-66	66-68
average frost free period (days)	80-115	120-135
average growing season (days)	152-168	168-170
average annual precipitation(in.)	20-27	24-27
average annual rainfall (in.)	15	16

d. Flora



The differing climates of the 4S and 5S climatic regions interact with the areal substrate and biota to produce recognizable community units in the Manitou Planning Area.<sup>7</sup> However, the vegetative boundary between the two climatic regions is an arbitrary one in view of the gradual climatic transition. As a result, the planning area is in effect a transition zone between the Quetico forests comprised primarily of deciduous trees to the south and the predominantly conifer forests to the north and exhibits a broad diversity of vegetation important in providing aesthetic satisfactions and a broader economic base.

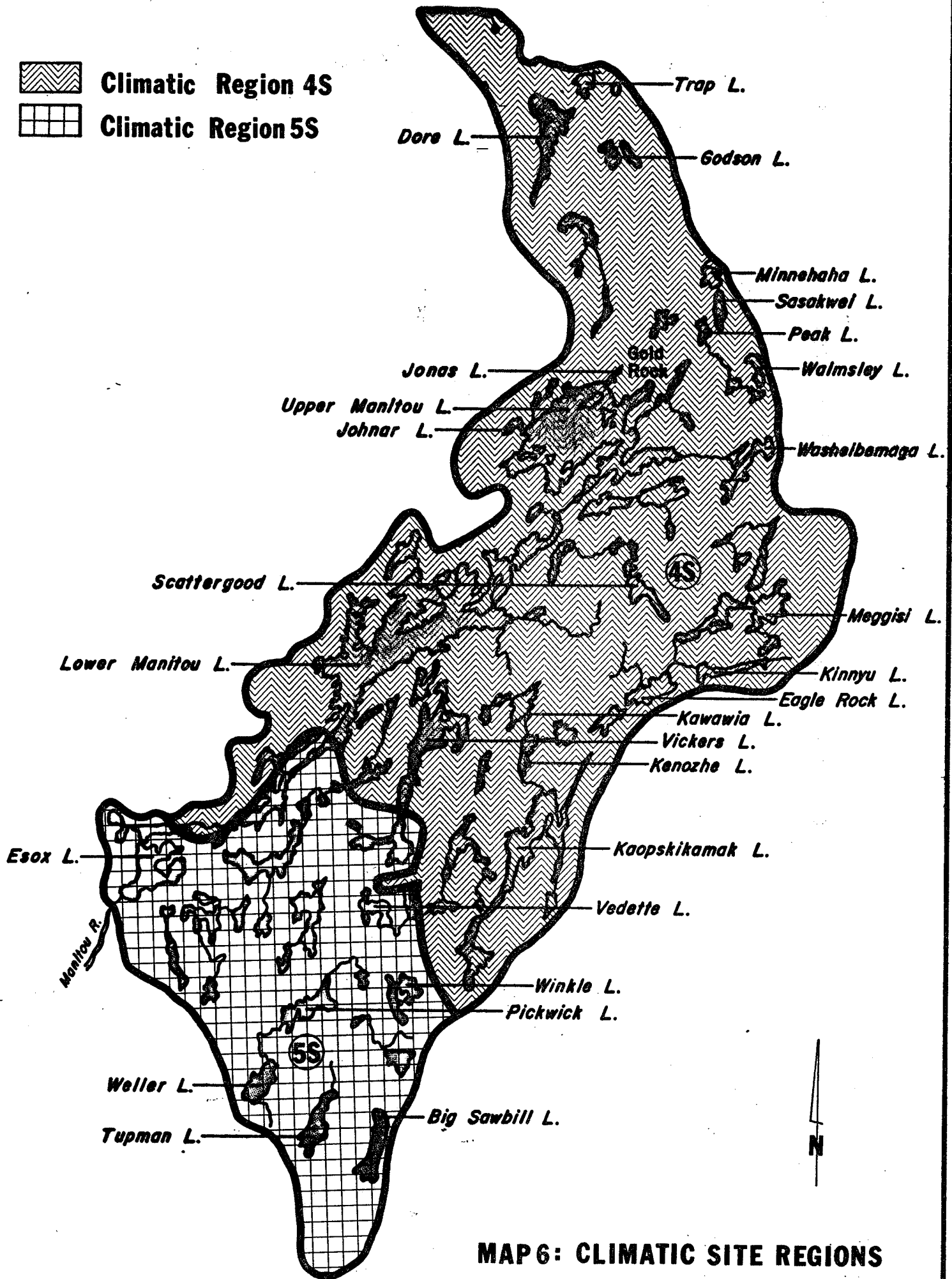
Two boreal forest vegetation types characteristic of the northern forest biome can be found in the Manitou Planning Area. These generally conform to the climate of the area and are modified

5. Honeyborne, Notes on the Use of Land use type maps of the Kenora District

6. Ibid, page 5

7. Odum, FUNDAMENTALS OF ECOLOGY, page 378

-  Climatic Region 4S
-  Climatic Region 5S



**MAP 6: CLIMATIC SITE REGIONS**

locally by topographic features. The identifying plant form is the needle-leaved evergreen such as spruces and pines.

The first type in areas of glacial tills and clays is conifer with mixed upland and deciduous growth, prolific understory or shrub growth and a lack of mosses. The second occurs in areas of shallow soils and steep slopes centred on the Manitou Lakes and is characterized by a dominant needle-leaved evergreen growth and a diversity of club-mosses, lichens, flowers and mosses.

Tree species indigenous to the Manitou Planning Area are:

- Jack pine (*Pinus banksiana*)
- White pine (*Pinus strobus*)
- Red pine (*Pinus glauca*)
- Black spruce (*Picea mariana*)
- White cedar (*Thuja occidentalis*)
- Aspen (*Populus tremuloides*)
- Balsam poplar (*Populus balsamifera*)
- Large-toothed aspen (*Populus grandidentata*)
- White birch (*Betula papyrifera*)

e. Fauna

Characteristic of the northern forest biome, the Manitou Planning Area supports a diverse population of small organisms but a relatively small population of large herbivores and carnivores. Large herbivores such as the deer and moose are known to congregate in areas of broad-leaved plant communities having fair to good life support capabilities. Smaller organisms being less subject to the area's macro environmental conditions are more extensive in the geographical location of their habitats.

Black bear, timber wolf, red fox, marten, wolverine, fisher, lynx, otter and other species of carnivore have been observed in the Manitou Planning Area.

A variety of fish species also exist in the planning area with lake trout being endemic to the mesotrophic to oligotrophic waters while coarse species inhabit waters of poorer trophic quality. Pickerel, northern pike, lake trout, bass, muskellonge and white fish are the primary commercial and sport fishing species.

Reptiles and amphibians tend to be scarce throughout the Manitou Planning Area because of the cool climate but some toads, frogs and garter snakes are found.

Both resident boreal and seasonal species of avifauna inhabit the planning area. Boreal species include jays, ravens and grouse, while seasonal species include a large migratory population of crows, finches, gulls, herons, eagles, ducks and geese.

Because the periodicity and community succession are quite pronounced, both fauna and avifauna tend to oscillate in numbers and areas of habitat. Seasonal periodicity is most pronounced in the avifauna and fish populations. Large herbivores tend to have a greater habitat tolerance but can also be affected by seasonal periodicity during periods of heavy winter snows and subsequent lack of browse. Community succession is a less apparent phenomenon but does occur as indicated by the gradual displacement of moose by deer as a result of changes in the quantity and type of browse and forest cover caused by excessive logging practices. It is most likely that the carnivore population will be located proximate to their primary food source, the herbivores, and as a result, will also oscillate with herbivore numbers and areas of habitat.

#### THE ECONOMIC BASE OF THE MANITOU PLANNING AREA

The diversity of economic activity within the Manitou Planning Area is limited by its distance from larger urban centres and its relatively sparse population. Existing activities such as logging,

mining, tourism, trapping and commercial fishing are totally dependent upon the area's natural resources and have never been exploited because of the inaccessibility of the area.

Located near the southern and northern extremities of the Manitou Planning Area are the communities of Fort Frances and Dryden supporting populations of 9,000 and 7,000 respectively. Logging is the foremost industry of both communities with some timber being used for lumber but the majority supplying pulp and paper mills.

As part of the vast regional forest resource committed to supplying the mills at Dryden and Fort Frances, logging operations have been conducted throughout the Manitou Planning Area since the 1880's. Initially, logs were exported via the Manitou River to Rainy Lake but road construction within the last twenty-five years has put an end to this practice.

During the period from 1895 to 1949, gold mining was a major economic activity throughout the Manitou Planning Area with the largest concentration of mines being around the settlement of Gold Rock and its highly productive rock formations. Mining activity has diminished in recent years to a point where only mineral exploration of the most promising rock formations is being conducted. Map 10: Patent Mining Claims gives an indication of the importance mining once had in the planning area.

During the post war period following the Second World War, tourism development in the form of the fly-in resort and outpost camp based on the area's wilderness quality is considered to be one of the most important economic developments. Several resort operations catering to extended vacations are located on the Manitou Lakes with the majority of outpost camps being located in a sparsely developed area inaccessible by land and water lying to the east of these lakes.

Trapping has always been an important source of income particularly for permanent residents of the Manitou Planning Area. A total of eighteen trapline licences exist.

Agricultural activity in the form of farming has been attempted on a very small scale in the mid-Manitou Lakes area but with little apparent success. The lack of arable land makes farming uneconomical.

Logging, mining and tourism tend to dominate the economy of the Manitou Planning Area. As a direct result of this dominance and because of the extreme fluctuation in demand for timber, mineral and recreational resources, the economy of the planning area can be considered to be highly susceptible to change.

## PRESENT LAND-USE

### a. Land Tenure

The present disposition of land within the Manitou Planning Area is as follows:

#### 1. Timber Licences

Two major timber licences are currently in effect within the Manitou Planning Area covering all lands with the exception of some islands on Upper Manitou Lake which are managed as a crown management unit. Dryden Paper Company Ltd. conducts logging operations to the north of Upper Manitou Lake and the Ontario-Minnesota Pulp and Paper Company Ltd., from Fort Frances operates to the south of the Dryden Paper limits in accordance with a revised limit agreement of April, 1970.

#### 2. Patent Properties

##### a. Surface Rights Only

Aside from properties included in plans M-61 and M-80, Gold Rock Townsite, thirty-three surface rights only properties have been patented in the planning area. Of these, twenty-eight are located on the Manitou Lakes and five on other lakes. Fourteen of the total are on islands.

##### b. Mining Properties (including surface rights)

A total of one hundred and six patent mining claims are located within the planning area. Of these, fifty are located within a two mile radius of Gold Rock townsite with the remainder being dispersed throughout the Manitou Lakes system.

#### 3. Land Use Permits

A total of thirteen land use permits have been issued within the planning area to include twelve outpost hunt and fish camps and one cottage at Gold Rock.

#### 4. Traplines

Eighteen traplines having a total of nine trapline cabins have in whole or in part been licenced for the Manitou Planning Area.

5. Unauthorized Occupation

Two unauthorized occupations of crown land are known to exist in the planning area - one at Gold Rock and the other in the mid-Manitou Lake area.

b. Forestry

Two licences presently have timber cutting rights within the Manitou Planning Area. The two do not, however, depend entirely upon the forest resources of the planning area for their supplies of timber but current increased transportation costs and a limited market for products makes it an important logging area in a strategic sense especially upon completion of the Manitou Road.

The land under tenure of the two licences is shown on Map 7 Timber Management and a description of their operations is as follows:

1. Ontario-Minnesota Pulp and Paper Company Limited:

The operations of the Ontario-Minnesota Pulp and Paper Company are being carried out in the southerly portion of the Manitou Planning Area in accordance with a revised limit agreement dated, April, 1970. The duration of the present cutting plan is for the period January 1, 1974 to December 31, 1976. The prescribed annual cut as recommended by the 1967-87 Management Plan has been 179,000 cords but since the limit revision of 1970 this has been increased to 191,000 cords.

The Ontario-Minnesota Pulp and Paper Company did not meet the cutting quota prescribed by the 1967-87 Management Plan. Actual production was 129,000 cords as compared to the planned 223,000 cords during the period April 1, 1969 to March 31, 1974.

Logging operation under the present plan will be based on commuter transport originating from Camp M-405, 40 miles distant from the Manitou Planning Area. Main logging areas will be in the



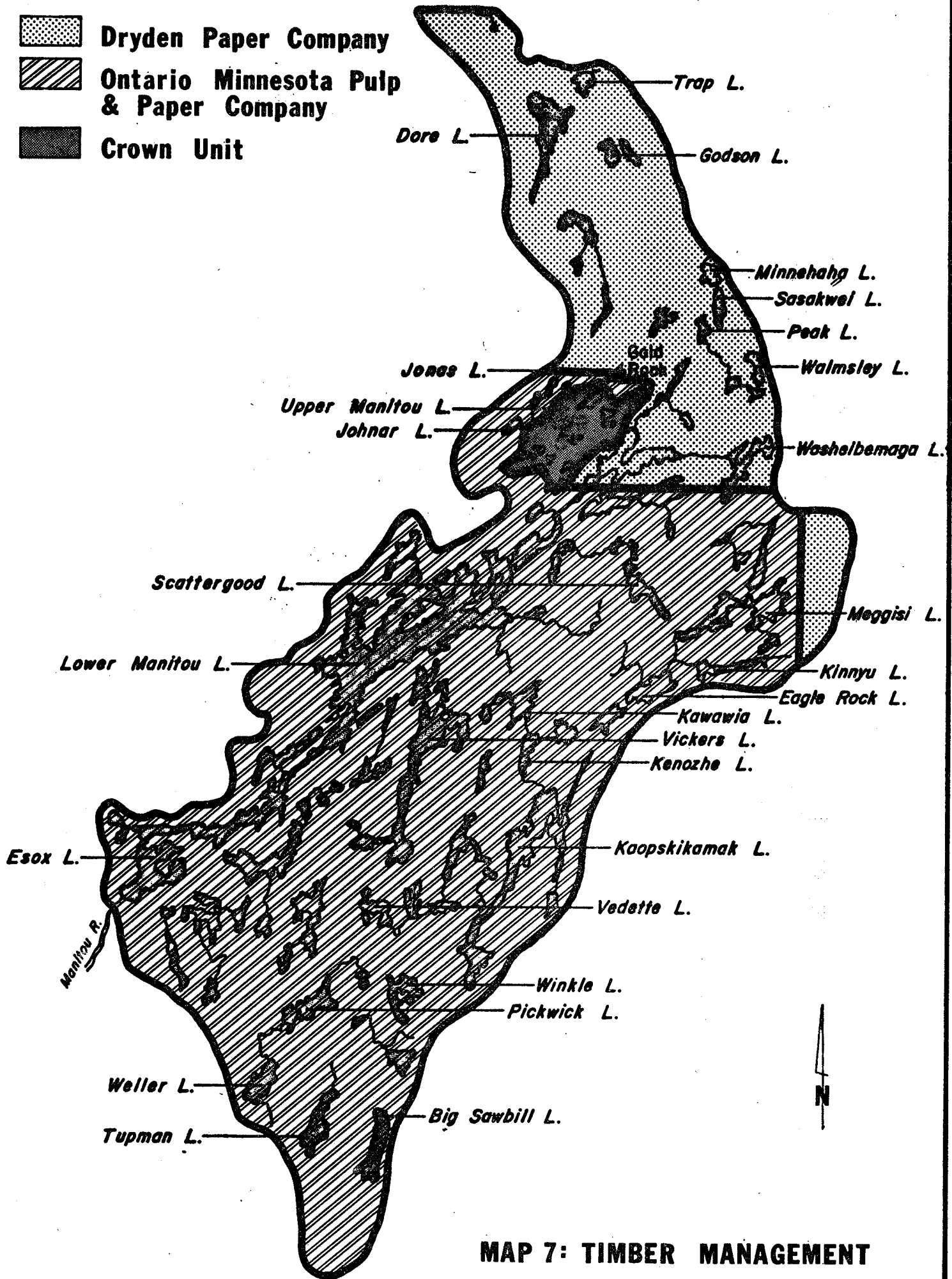
**Dryden Paper Company**



**Ontario Minnesota Pulp  
& Paper Company**



**Crown Unit**



**MAP 7: TIMBER MANAGEMENT**

vicinity of Bat, Eagle, Poulson, Vickers, Weller and Winkle Lakes with logs being transported to Fort Frances via the Weller Loop Road, the Manitou Road, and Highway No. 11. For these logging areas, the planned production for 1974-75 is 86,000 cords. This production is expected to be increased during the following season to a prescribed cut of 95,000 cords. The chief species to be cut will be spruce but red and white pine will be cut as encountered raising the total annual cut to as much as 109,200 cords.

It is anticipated that third party operators will be permitted to continue operations within the Ontario-Minnesota Pulp and Paper Company in the vicinity of Poulson and Tupman Lakes licence area as long as these do not interfere with normal company activities or generate pulpwood from their operations. These third party operators will be allocated in specified areas designed by Ministry of Natural Resources management as well as company foresters. The chief species to be cut by third party operators include red and white pine, poplar and cedar.

The proposed road development program included in the Ontario-Minnesota Pulp and Paper Company cutting plans are shown on Map 8.

It is expected that logging operations will be continued for a period of three years at about the same rate and pattern by Ontario-Minnesota Pulp and Paper following completion of existing plans. It appears that a plan of longer duration will be largely dependent upon the rate of development of the Manitou Road. It has, however, been projected by company foresters that a bridging of the Manitou Lake will likely be required to gain access to forest reserves lying west of the Manitou Lakes system in the vicinity of Kaminni, Noonan, Kaoskauta and Penassi Lakes.<sup>8</sup>

8. Notes and figures of Ontario-Minnesota logging operations are derived from the OPERATION PLAN, MANITOU CONCESSION, FOR THE PERIOD JANUARY 1, 1974 TO DECEMBER 31, 1976

2. Dryden Paper Company Limited

The Dryden Paper Company operates under Licence 327100, Schedule 'A' in an area north of Upper Manitou Lake. The bulk of logging operations to be carried out by the company in the Manitou Planning Area is projected for an area northeast of Upper Manitou Lake. It is anticipated that these operations will be carried out during the period 1976 to 1981 as prescribed in a twenty year operations plan. On the basis of an existing five year plan, an area lying adjacent to the planning area to the east and northeast will be logged during 1974-76 bringing the operating plan dates into line with those outlined in the twenty year plan for the period 1971 to 1991.

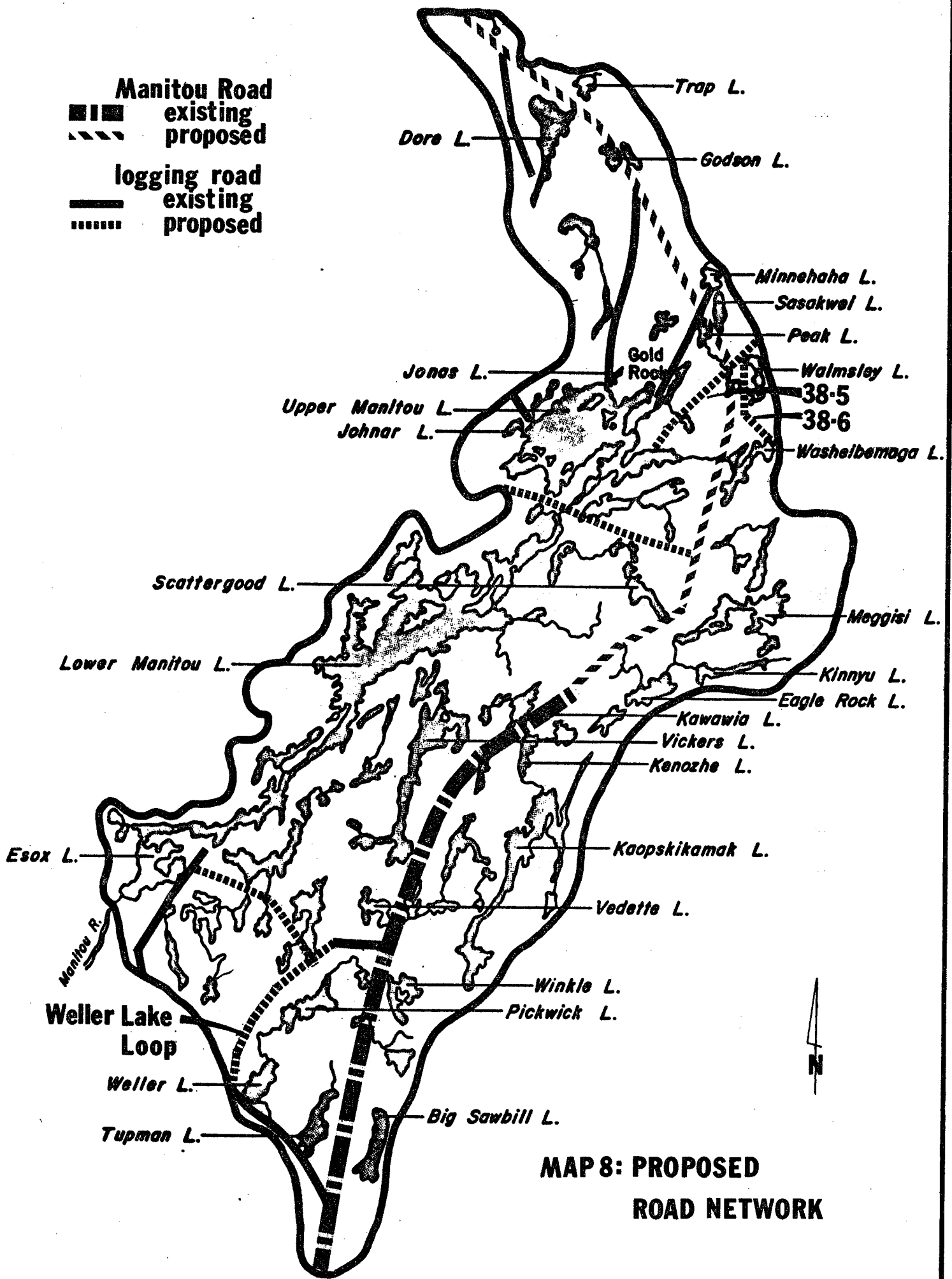
Part of the Dryden Paper and Ontario-Minnesota Pulp and Paper Company Limits lying northwest of Upper Manitou Lakes in the vicinity of Johnar and Jonas Lakes have been cut by the Dryden based company between the years 1964 to 1969 prior to the revised limit agreement of April, 1970.

It is anticipated that the Dryden Paper Company will proceed with its operations to the northeast of Upper Manitou Lakes without the aid of third party operators. A 33,000 cord quota is prescribed for the period 1974-76 but this will be revised once company forest access roads are extended further into the Manitou Planning Area. The bulk of future logging operations to be conducted by Dryden Paper Company in the planning area will likely be situated to the west of Boyer and Washiebemaga Lakes.

The Dryden Paper Company's proposed forest access road development program is shown on Map 8: Projected Road Network. Since the Manitou Road was originally designed to provide forest access for the Ontario-Minnesota Pulp and Paper Company, and its route only recently confirmed Dryden Paper has not included this road as part of its road development program. Current plans indicate that the bulk of company haul roads will in fact be located to the

**Manitou Road**  
 ■■■■ existing  
 - - - - proposed

**logging road**  
 ——— existing  
 ..... proposed



**MAP 8: PROPOSED ROAD NETWORK**

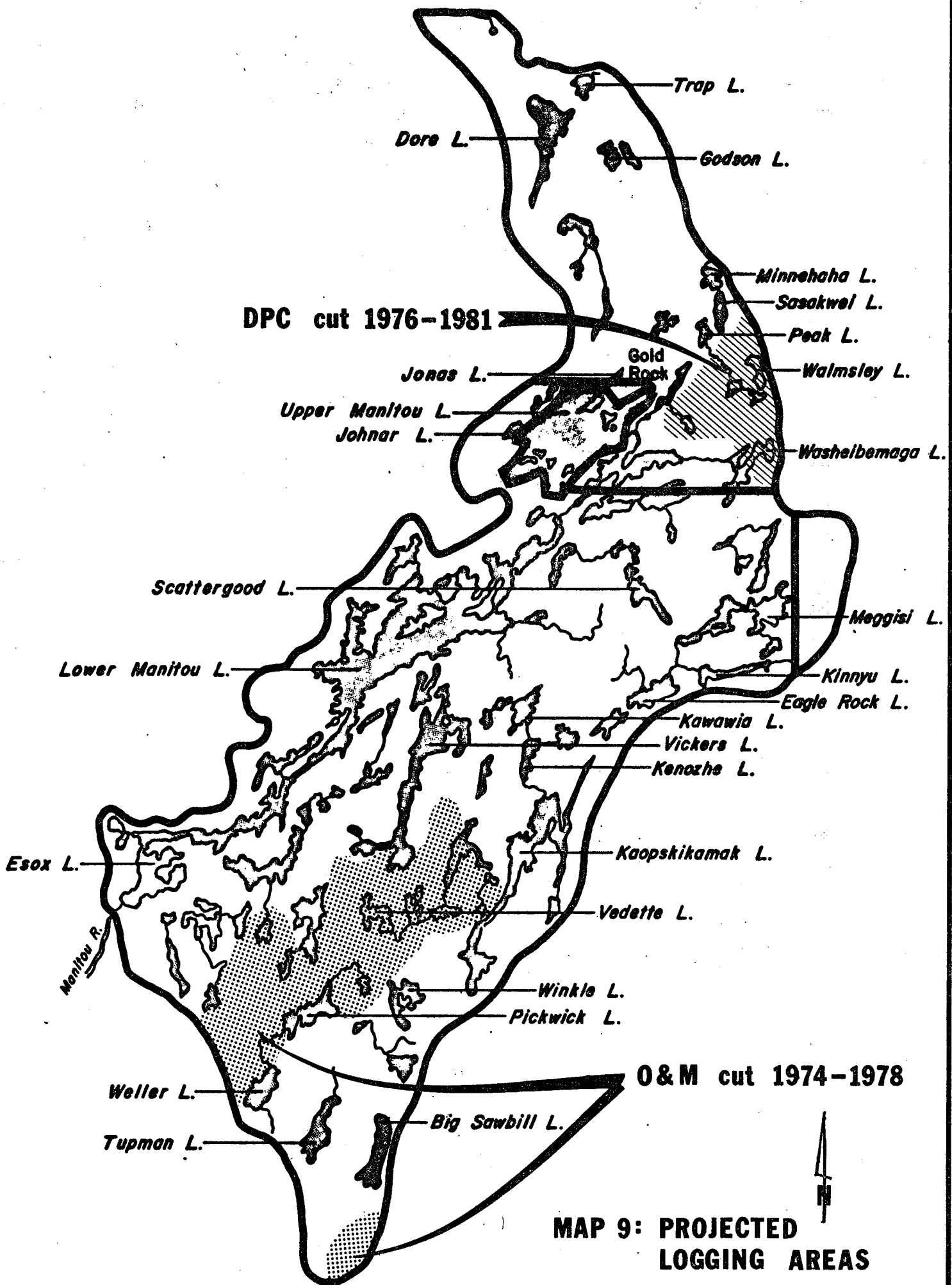
east of the Manitou Road with the exception of the Mosher Bay Road (road 38-6) which will provide access to forest reserves lying to the north of Mosher Bay on Upper Manitou Lake. It is expected that this road will cross the Manitou Road at a point west of Walmsley Lake. The Kennewapekko Lake Loop Road (road 38-5) of which the Mosher Bay Road is an appendage is to be completed during the period 1976-81. <sup>9</sup>

### 3. Summary of Logging Operations

The Dryden Paper Company and Ontario-Minnesota Pulp and Paper Company will be basically operating in those areas shown on Map 9: Projected Logging Areas. The two companies are not entirely but are largely dependent upon the forest reserves of the Manitou Planning Area to supply their respective timber requirements. Being of strategic importance to both companies, it would not be practical to place blanket cutting restrictions on logging operations. In view of the inconsistent approach of both companies in harvesting timber, it will be necessary to proceed with a logical sequence of timber harvest procedures in the future except in strategically important or environmentally sensitive areas where logging should not be permitted. It is suggested that of the responsibility in recognizing and protecting features exhibiting scenic, scientific, or recreational value be placed upon Ministry of Natural Resources officials and the two operating companies. It is also suggested that the Ministry of Natural Resources retain control of logging by issuing yearly cutting approvals, approving species and volumes being cut, and maintaining reserves and other conditions applicable to timber extraction.

9. Notes and figures on Dryden Paper Company operations are derived from:

- a. MANAGEMENT PLAN, LICENCE 327100, (SCHEDULE A & C, B) Dryden Paper Company Limited, covering the period 1971-91, July, 1972
- b. DRYDEN PAPER COMPANY LIMITED, Woodlands Division, Operating Plan covering the period April 1, 1974 to March 31, 1976, March, 1974



One of the major problems created by logging operations in the Manitou Planning Area lies in the fact that the Ontario-Minnesota Pulp and Paper Company has no definite plans for forest regeneration. It has, however, been established that the company will investigate areas after operations have ceased and may take measures to restock such areas as required.

The Dryden Paper Company will endeavour to maintain as much jack pine cover as possible on its cutover areas and on backlog areas attempt to regenerate sites with white spruce when possible. Some hardwood and mixed wood areas will also be regenerated as softwood sites to provide for the future softwood requirements of the Dryden mill. Natural regeneration has proven successful on much of the Dryden Paper Company limits after a waiting period of five to ten years but has resulted in a major problem of mixture of species making timber harvesting inefficient and slow. As a result, the company has turned to using scarification and planting programs to ensure a primarily singular species regeneration.

A major problem related to orderly land-use planning in the Manitou Planning Area is of course the numerous forest access roads which are and will be built as the Manitou Road construction progresses. However, the importance of the forest access road to logging operations cannot be overemphasized since they facilitate the cutting and full utilization of timber reserves throughout the area. With no roads, little or no use can be made of forest resources. With a limited number of roads, only partial use can be made of the forest. With a well-planned system of roads, it will be possible to conduct a well-managed logging program, provide for adequate forest protection, forest regeneration, and recreation access.

In order to best protect some particularly sensitive areas such as the Manitou Lakes system from recreational overuse or

because of the high accident risk associated with conflicting use between logging operations and recreationists, it will likely be necessary to restrict public recreation access to certain designated roads. Also, logging roads should be of an appropriate standard that once logging operations have ceased, these roads will no longer be passable, thereby, preventing future uncontrolled recreation use.

In summation, a properly-managed forest harvesting program will not likely seriously interfere with recreational activities in the Manitou Planning Area.

c. Mining

Since the closure of the Laurentian and the Big Master Mines in 1949, mining operations have ceased in the Manitou Planning Area. It is, however, possible with the improved access brought about by the construction of the Manitou Road and rising mineral values that one or more of the abandoned mines will commence operations after renovations.

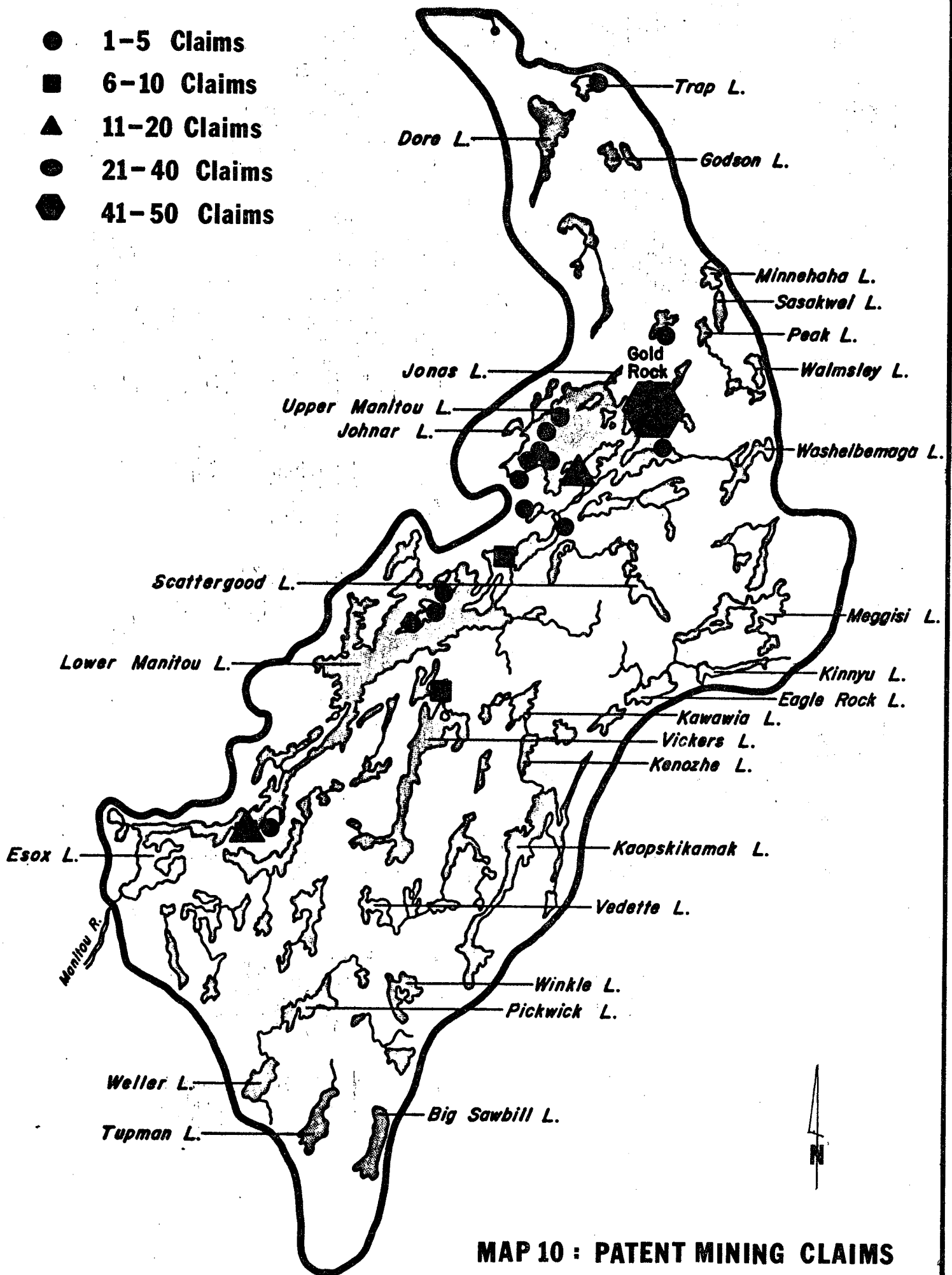
Current mineral exploration is centred around the highest potential rock formations around Gold Rock and Mosher Bay of Upper Manitou Lake. Finds of moderate size have been located in this general area but none warrant development at this time.

The aesthetic or recreational values are, on the whole, not hampered by past mining activity since the most visible evidence of past mining activity is the occasional pile of tailings, some landings, and a few obsolete buildings and equipment. Numerous mine air shafts hidden by vegetative growth are of course dangerous to the unwary. Map 10: Patent Mining Claims illustrates the extent of past mining activity in the planning area.

d. Commercial Fishing

Two commercial fishing licences are in effect in the Manitou

- 1-5 Claims
- 6-10 Claims
- ▲ 11-20 Claims
- 21-40 Claims
- ◆ 41-50 Claims



**MAP 10 : PATENT MINING CLAIMS**

Planning Area. An analysis of figures (see Appendix D) for years of active operation indicate a slight decline in the total fish poundage caught on Manitou Lake. The large variation in fish caught in 1973 which amounted to half that caught in 1965 has been attributed to inefficient fishing practices. Currently, white fish makes up the largest portion of species caught with the others being in order of importance, suckers, lake trout, northern pike and ling.

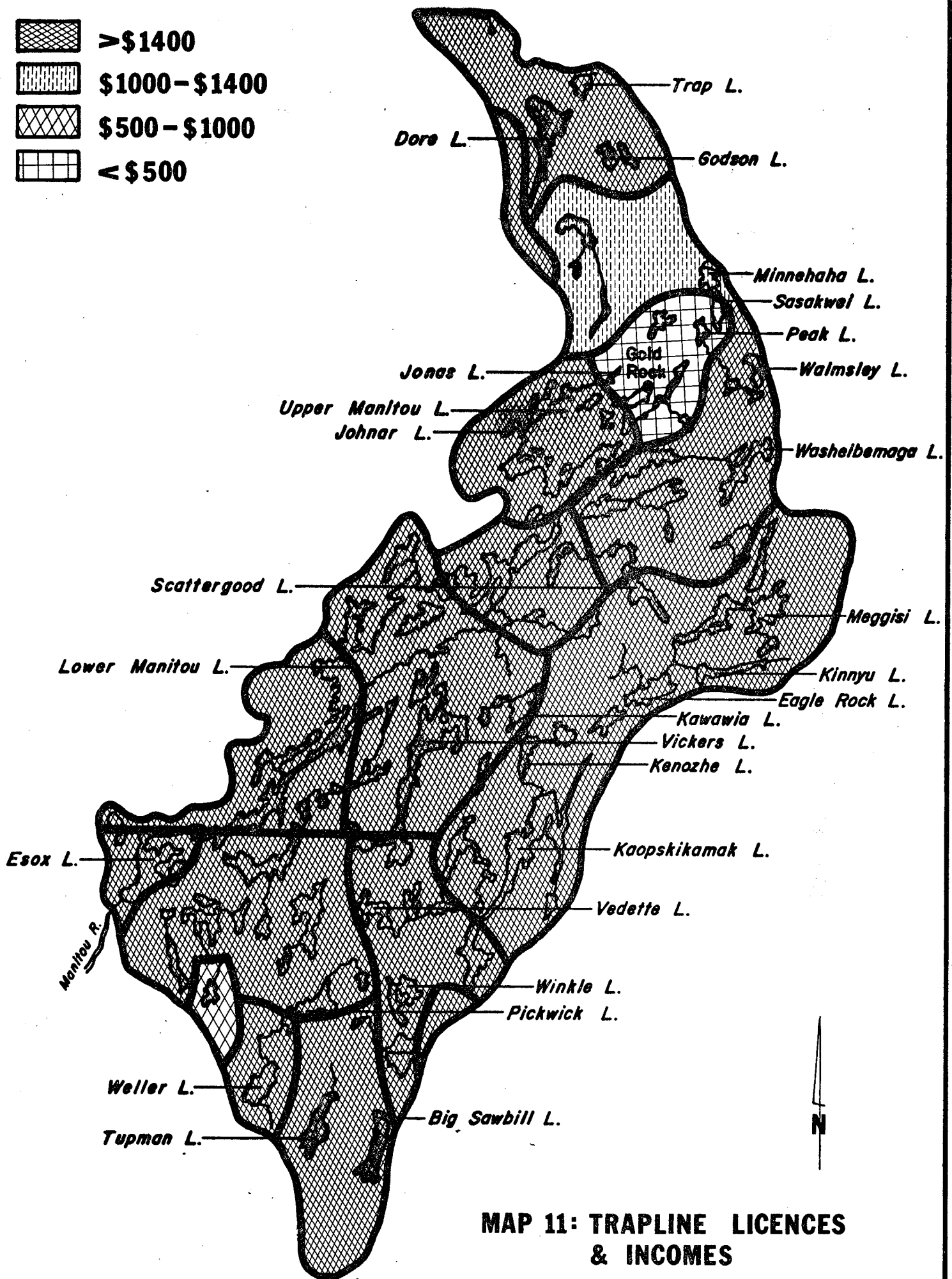
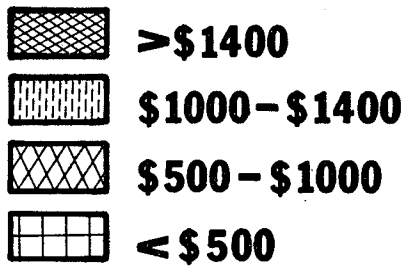
Commercial fishing in the planning area has historically been a seasonal occupation to supplement the incomes of a few individuals who derive income from other sources. Only the commercial fisherman on Upper Manitou Lake can be classified as fulltime and even he is forced to fish other lakes throughout Dryden District to conduct an economical operation.

e. Trapping

Map 11: Trapline Licences and Incomes indicates the extent and importance of trapping as an activity in the Manitou Planning Area. Generally, trapping is a valuable source of supplementary income (see Appendix E) which will not likely be endangered by the development of the Manitou Road as long as excessive trapping practices do not occur or furbearer habitats are not totally destroyed.

f. Recreation

Recreation in varying forms is one of the major land-uses existing in the Manitou Planning Area. The primary reason for its relative importance is that it is based upon renewable resources of wilderness quality which is maintained by the lack of other land-uses and restricted land access. Because other land-uses have not been extensive in the recent past throughout the planning area, recreation has enjoyed a rather solitary existence which likely will not be the case with the construction of the Manitou



**MAP 11: TRAPLINE LICENCES & INCOMES**

Road and the number of non-recreational land-uses it is expected to generate.

Basically, recreation in the planning area consists of commercial, cottage and crownland. Commercial is the most important in view of the numbers of people patronizing resorts and income generated.

#### 1. Commercial

The two primary forms of commercial recreation located in the Manitou Planning Area are the tourist resorts and the fly-in fish and hunt camps. The basis and form of their respective operations are as follows:

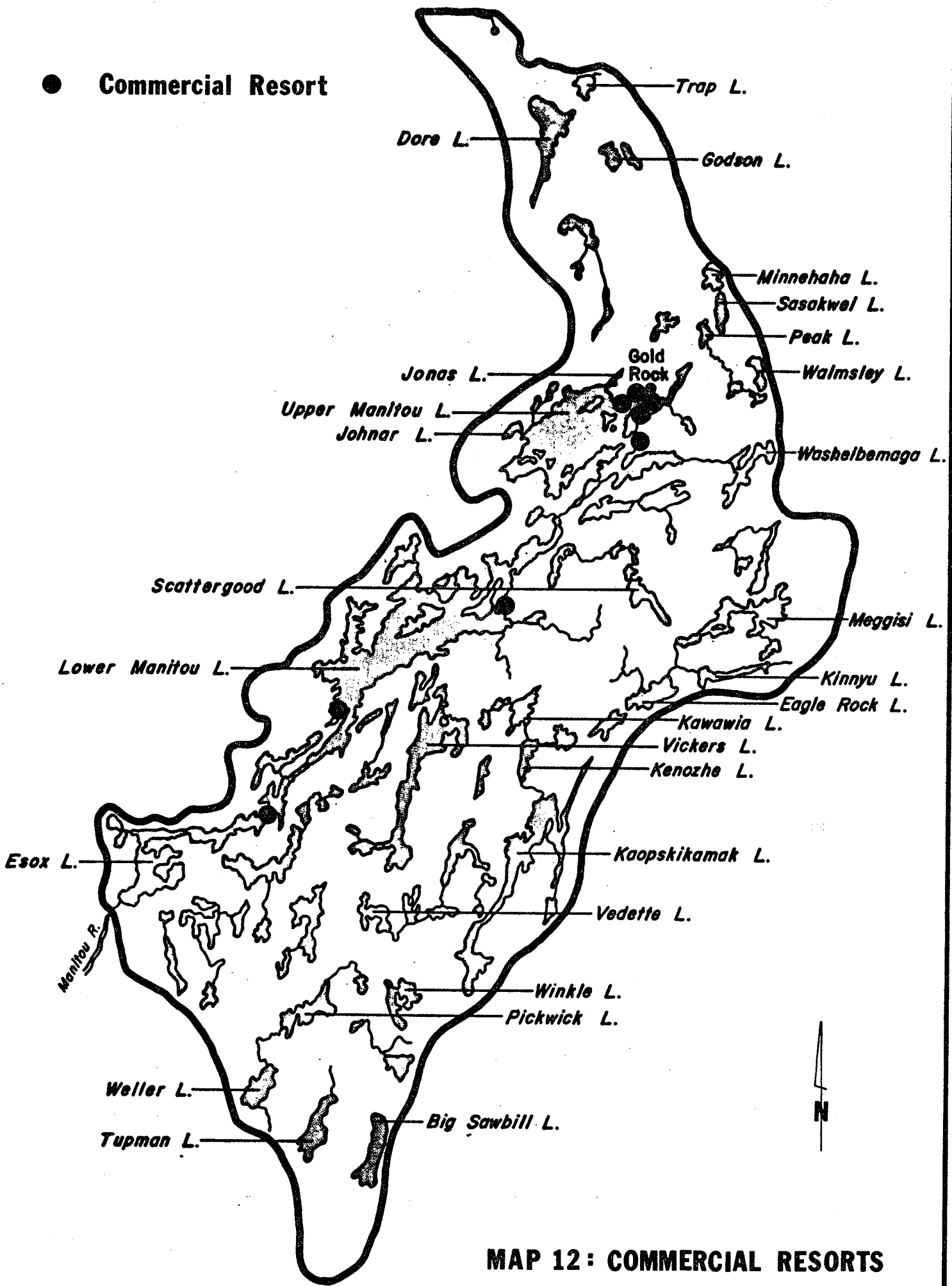
##### Resorts:

Commercial resorts are those recreational facilities providing formal accommodation and catering to extended vacations and guests occupied in fishing, hunting, or other past-times. The peak operating season for most resorts lasts from May to September. Two resorts have recently attempted to extend the basis of their operations to include a winter vacation package.

Map 12: Commercial Resorts indicates the distribution of commercial resorts throughout the planning area. In total, there are eight resorts all on the Manitou Lakes system. Five of these resorts were operative during 1974. All five depend upon isolation in maintaining their wilderness quality attraction which has been the basis of a moderately lucrative business in the past. However, in view of easier lake access, most resort operators may in fact lose the greater portion of their clientele to crown land recreation unless changes are made in the basis of their operation.

As a result of interviews held with the five operating resort owners, it appears that the concensus of opinion is that all resorts on the Manitou Lakes system should remain wilderness enterprises. To accomplish this, it will be necessary to restrict

● Commercial Resort



MAP 12: COMMERCIAL RESORTS

land access by keeping roads away from the Manitou Lakes.

Outpost Camps:

Fly-in fish and hunt camps are less formal accommodations than the commercial resort but still cater to the extended vacation and guests occupied in fishing, hunting or other past-times.

Map 13: Outpost Camps indicates the distribution of outpost camps throughout the Manitou Planning Area. Two of a total of twelve camps are located on the Manitou Lakes system with the remainder being located in an area of high fishing and hunting capabilities and poor land and water access to the east of this system. Those camps located generally in the vicinity of Kawawia, Vickers and Kaopskikamak Lakes which exhibit fine cold-water species angling.

It is expected that the Manitou Road will mean the end of most outpost camps since its route facilitates land and water access to those lakes upon which this form of recreation development is focused.

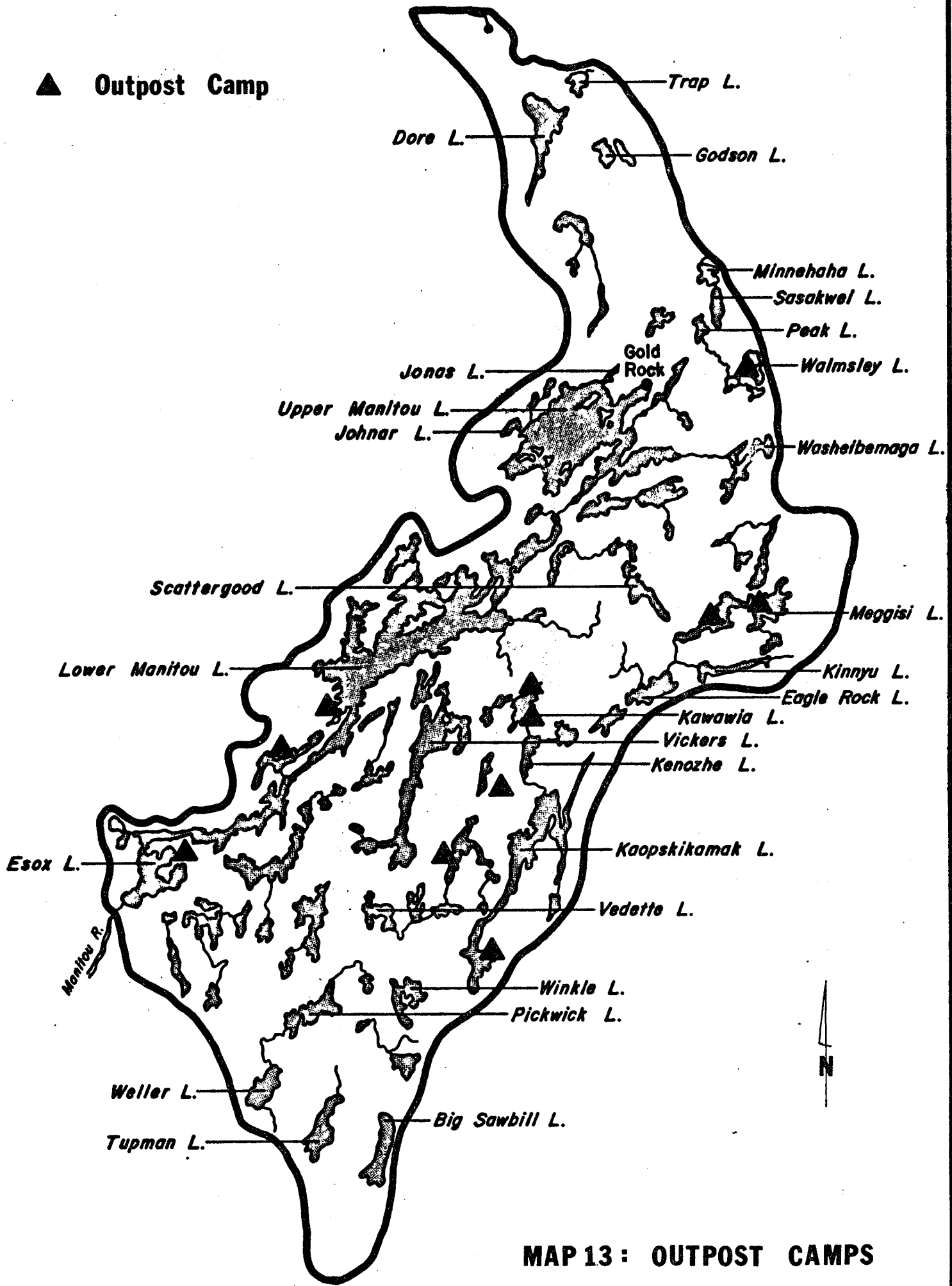
2. Cottages:

Map 14: Cottages illustrates the distribution of cottage development throughout the Manitou Planning Area. A total of twenty-eight cottages outside of Gold Rock townsite exist within the planning area. All cottages are accessible only by water or air and are owned by United States citizens.

As a result of a questionnaire survey of cottage owners, it appears that the concensus of opinion is not to provide land access to the Manitou Lakes system and limit the extent of cottage development.

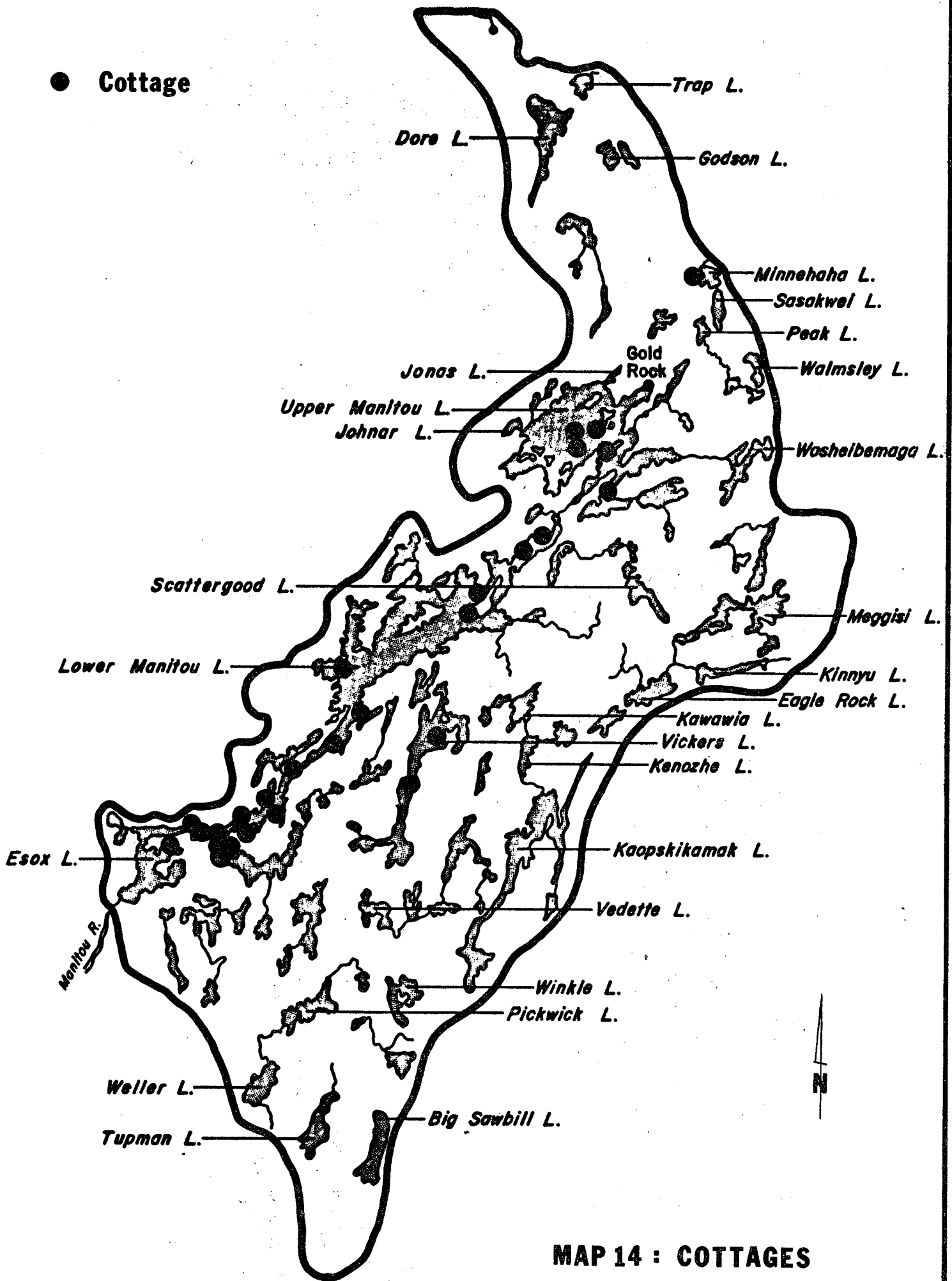
Presently, cottage development is only permitted in those areas capable of meeting environmental regulations which

▲ **Outpost Camp**



**MAP 13: OUTPOST CAMPS**

● Cottage



MAP 14 : COTTAGES

automatically eliminates most of the Manitou Planning Area. However, environmental regulations are subject to changes which in combination with a regional increase in population may in fact create a future demand for additional cottage development in the planning area. In this light, it is advantageous to postpone cottage development in the area until public demand suggests otherwise to maintain as much of the area's wilderness quality for as long as possible. If cottage development is to occur in the future, it is suggested that a cluster form of subdivision take precedence to disrupt as little as possible the planning area's environment and aesthetics.

### 3. Crown Land:

The Manitou Planning Area provides for a variety of crown land recreation opportunities located primarily along major waterways. No attempt, with the exception of canoe routes and one access point on Vedette Lake, has been made by the provincial government to develop additional opportunities or associated facilities. It is anticipated that the future public demand for crown land recreation will be basically road-oriented for highway campsites, picnic grounds and lake access points but a parallel increase in water-oriented recreational activities for extensive boating, fishing, canoeing and swimming is also expected.

Basic forms of crown land recreation include the following:

#### Interpretation of Pictograph Sites:

Two recently discovered pictograph sites have been located within the Manitou Planning Area - one on the Manitou Lakes system and the other on Vickers Lake. The Manitou Lakes pictograph is of unique quality whereas the Vickers Lake pictograph is badly deteriorated.

#### Canoe Routes:

Two canoe routes have been developed within the Manitou Planning

Area. These are shown on Map 15: Canoe Routes.

A variety of canoeing experience is offered by the planning area. Portaging is generally of moderate difficulty as a result of the varied terrain and the longer routes require average or better canoeing ability.

Upon completion of the Manitou Road, it is anticipated that canoe routes will provide an important form of access to a large number of adjacent lakes.

Access Points:

Map 16: Access Points illustrates the number of access points existing in the Manitou Planning Area. These are at Alonghill Lake, Gold Rock, Johnar Lake, Jonas Lake and along the Manitou Road at Vedette, Big Sawbill, Godson, Dore and Trap Lakes. Major lakes accessible from the proposed Manitou Road but currently without developed access are Winkle, Kawawia, Kenozhe, Scattergood, Vickers, Peak, Sasakwei, Rattlesnake and Meggisi.

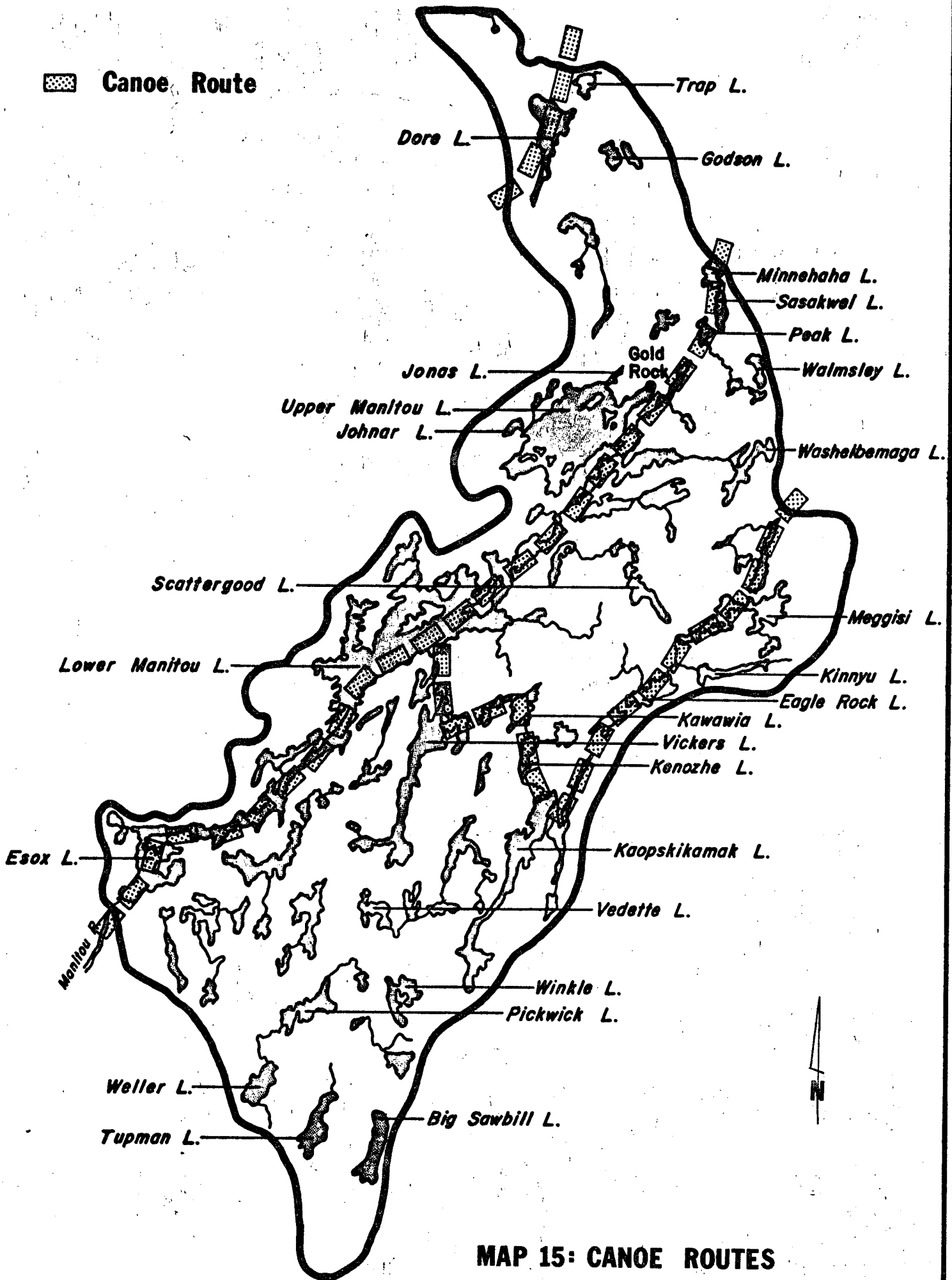
Those land routes which have been developed into the Manitou Lakes at Gold Rock, Johnar and Alonghill Lakes are in an advanced state of deterioration as a result of the limited use which they receive. The Jonas Lake access receives greater use than the others because it provides the most direct access to the Manitou Lakes. As a result, this access route is in better condition.

Planning area lakes not having road access are shown on Map 17: Lake Access.

Sport Fishing:

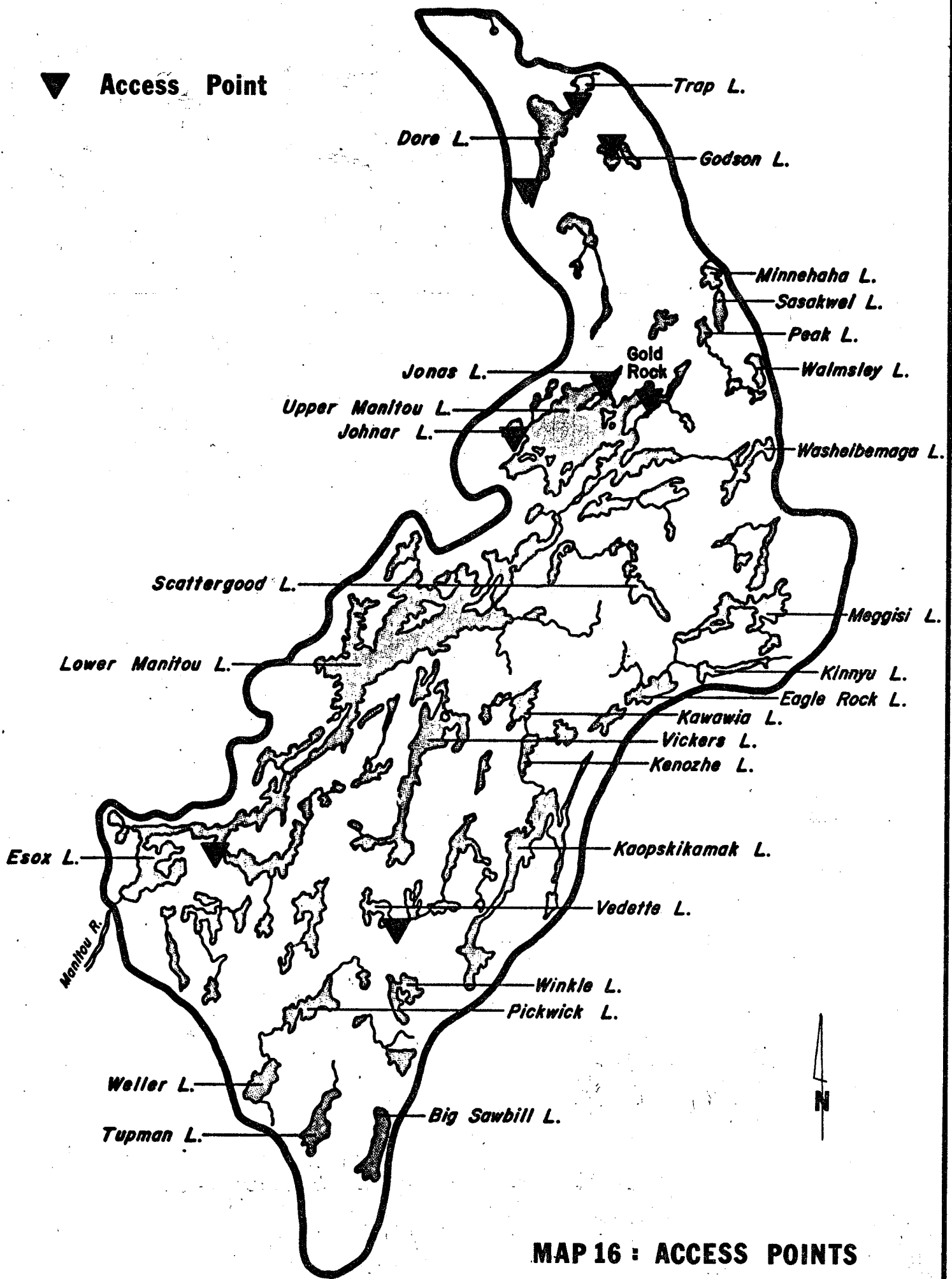
In the past, the Manitou Planning Area has been best known for its walleye, bass and lake trout but it also offers good northern pike, muskellonge and whitefish angling with fishermen having moderate success on most lakes.

 **Canoe Route**



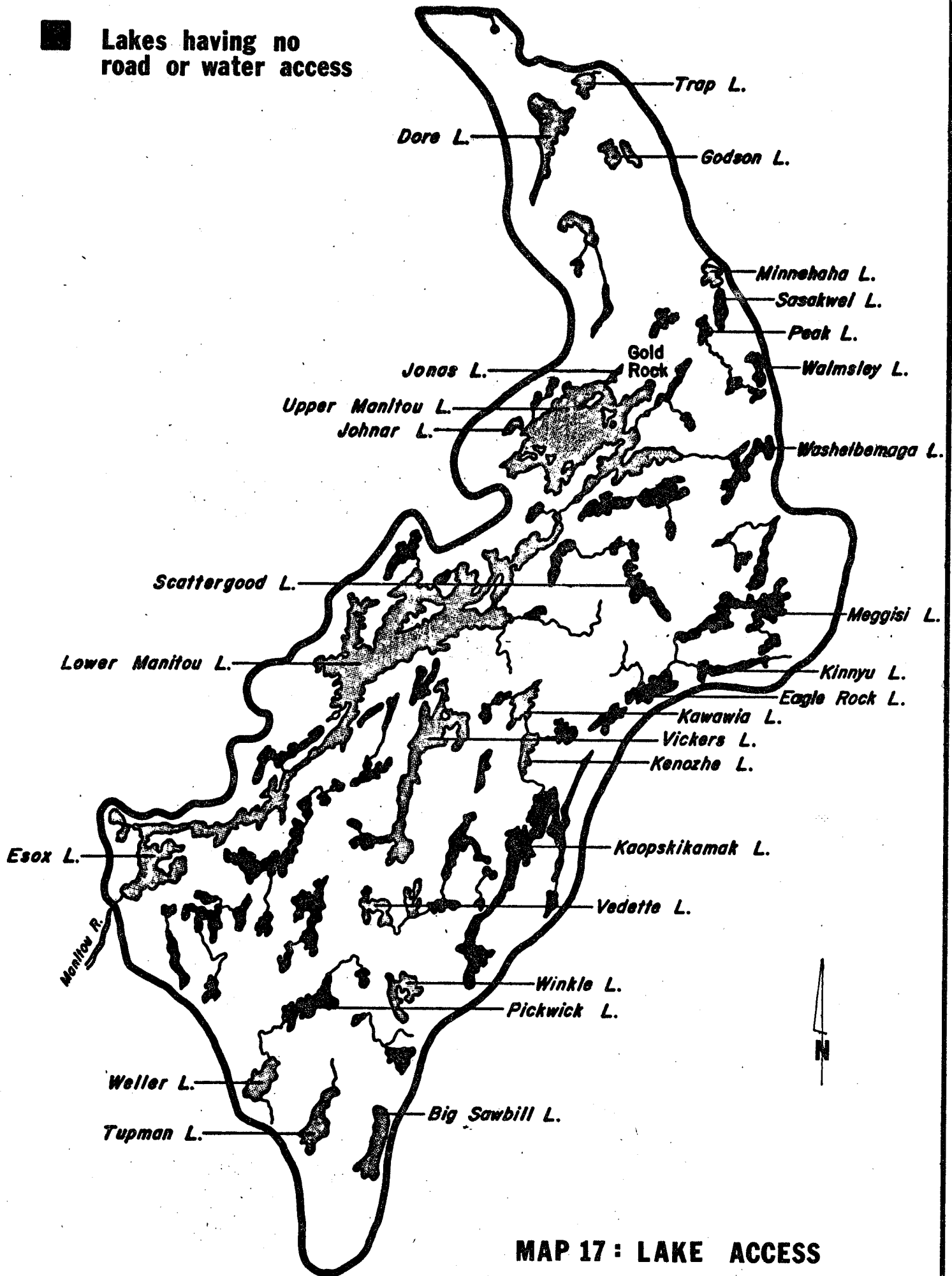
**MAP 15: CANOE ROUTES**

▼ Access Point



MAP 16 : ACCESS POINTS

■ Lakes having no road or water access



MAP 17: LAKE ACCESS

Mercury pollution in the Lower Manitou and Vista Lakes has recently cut down on the amount of sport fishing activity on these two lakes with northern pike, burbot, and lake trout in the Lower Manitou and walleye and northern pike in Vista Lake being above acceptable mercury levels.

Although it has been recognized for some time that lakes having road access have decreasing fish populations, a restocking program has not been put into operation. In lieu of an ongoing restocking program, it has been suggested that a shorter fishing season or smaller catch limit on certain species would be an asset in maintaining a viable sport fish population.

#### Hunting:

The Manitou Planning Area is on the whole not well known for its big game hunting because of its relative inaccessibility. As opposed to areas having good road access, the only hunting activity occurring in the planning area originates from the commercial resorts and outpost camps. Moose is the most important big game species sought by the hunter because of their numbers. Deer are not as important because of their small numbers.

On the basis of regional surveys, the big game hunting in the Manitou Planning Area is considered to be of provincial significance.

#### Summary of Recreational Land-Use

It appears that a highly structured approach to recreational land-use planning is limited in its usefulness at this time because of insufficient cross-sectional and time-analysis data on most recreational activities. Because of this lack of data on recreation, it seems necessary that a user survey be conducted to determine the extent and type of recreation demand to be expected upon completion of the Manitou Road. Until this survey is conducted, recreation developments should be of a regulatory nature,

limited in variety and carried out with the knowledge that the planning area has a definite support capacity that, if exceeded, will result in environmental deterioration.

#### SUMMARY OF PRESENT DEVELOPMENT:


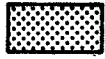
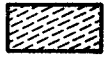

Faced with the problem of dealing with a relatively large tract of land and in attempting to maintain a generalized overview of the total planning area, a degree of development expressed as an average per zone based on development units per square mile has been used. This degree of development is in effect a relative scale to indicate the relative amount of development occurring in each zone in the context of the planning area and does not indicate for example, the concentrated development at Gold Rock townsite although the latter has been incorporated into that degree of development expressed for the zone in which it is located.

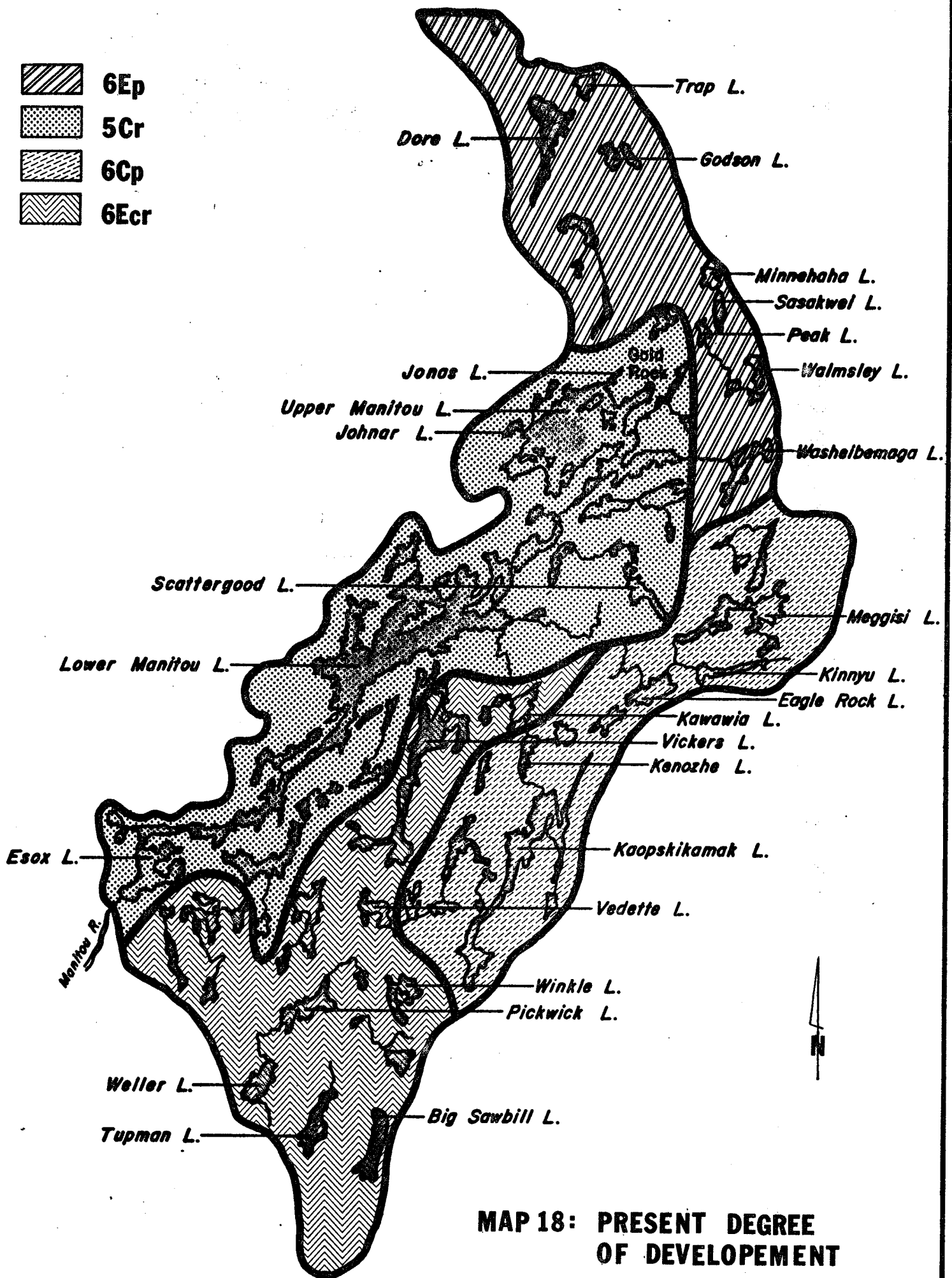
Using the development criteria of Appendices A, B, and C, Map 18: Present Degree of Development, shows the amount and type of development occurring in the various land-use zones of the Manitou Planning Area. These zones are based on the watershed planning concept with the exception of the Manitou Road corridor which is deemed necessary to determine in a more precise fashion the existing development occurring along the proposed route.

It is notable that most of the present development occurs within that zone encompassing the Manitou Lakes system having approximately 1.3 development units per square mile or a degree of 5 for the zone. All other zones exhibit a present degree of development of 6 and rather sparse development.

#### RESOURCE CAPABILITY

Under the concept that land has a definite capacity or capability to engender and sustain various forms of land-use, a generalized assessment of the Manitou Planning Area's resources

-  6Ep
-  5Cr
-  6Cp
-  6Ecr



**MAP 18: PRESENT DEGREE OF DEVELOPEMENT**

capabilities follows:

a. Agricultural Capability

The Manitou Planning Area exhibits poor agricultural capability since shallow soils and rugged topography severely limit the extent of this activity. The northern and southern extremities have, however, slightly higher potential because of deeper soils even though these are not best suited to agriculture.

b. Forest Capability

Regional Overview:

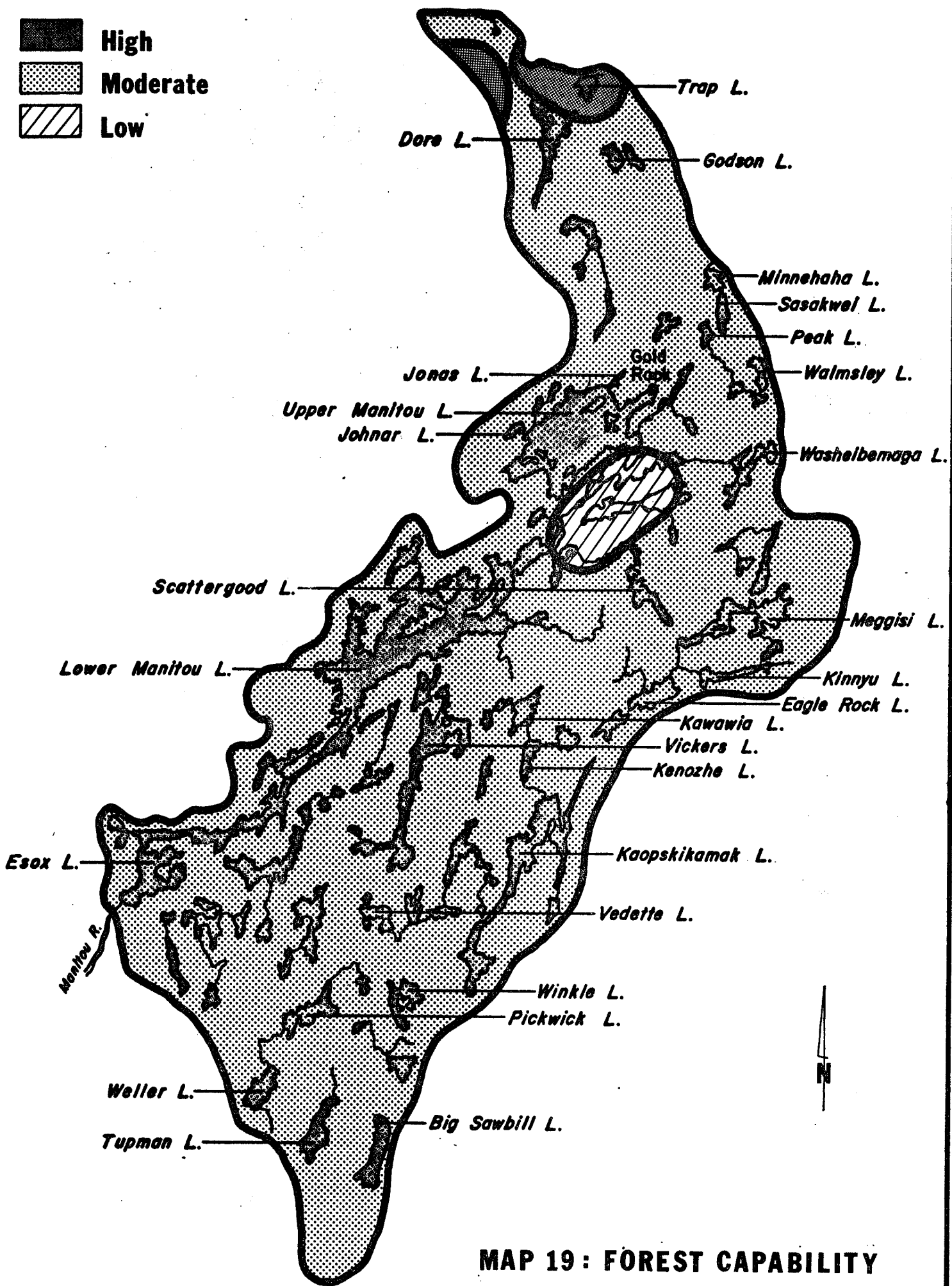
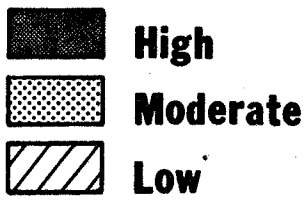
On a regional scale, the forest capability of the Manitou Planning Area is of higher than average capability in the Dryden and Fort Frances Districts. Being proximate to the large pulp and paper and allied industries of the two communities, the planning area's forest resources are of major importance and the primary reason for the construction of the Manitou Road.

The Manitou Planning Area:

Map 19: Forest Capability, illustrates the forest capability of the planning area on the basis of Ontario Land Inventory data and using the following relative scale:

OLI Class	Capability Rating
1,2,3	high
4,5	moderate
6,7	low

It is notable that a moderate capability forest resource occurs throughout the greater portion of the Manitou Planning Area. One low capability area exists to the east of Upper Manitou Lake whereas several small, separated, high capability areas exist to the north.



**MAP 19: FOREST CAPABILITY**

c. Mineral Capability

Regional Overview:

On a regional scale, the Manitou Planning Area lies to the north of important mineral finds at Shebandowan and Rainy Lake. Its relative location and geologic structure combined with past gold and geologically-related mineral finds indicate that there may be some potential for mining. However, since mining potential and value tend to fluctuate with market demand, it is difficult to predict the future importance of mining in the planning area.

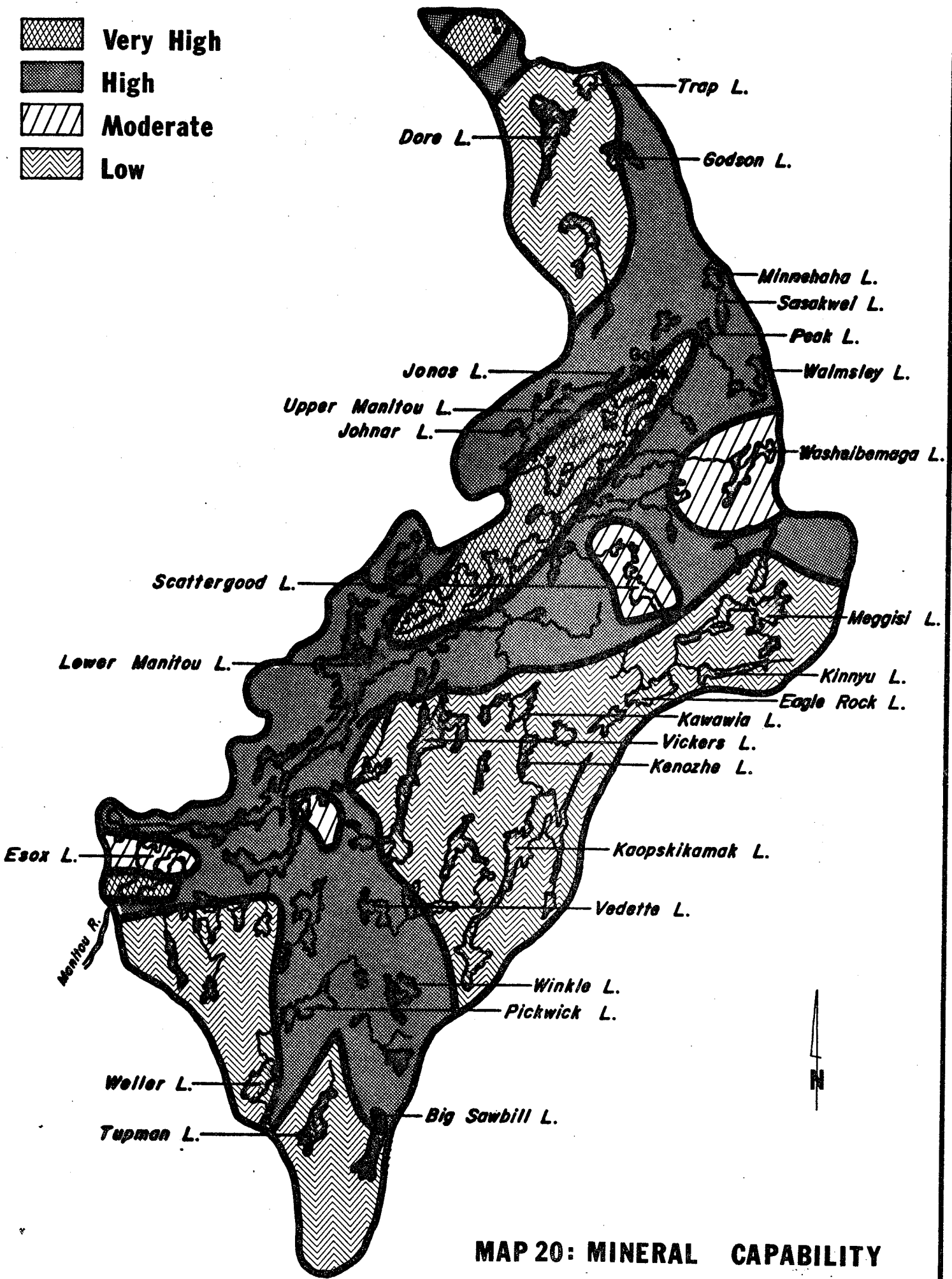
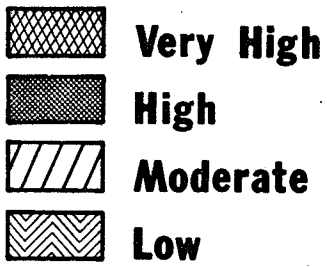
The Manitou Planning Area:

Map 20: Mineral Capability illustrates the mineral capability of the Manitou Planning Area on the basis of past mineral finds, recent survey data, and consultation with Ministry of Natural Resources geologists. For the purpose of this study, the mineral capabilities are shown as being of very high, high, moderate and low capability.

In general, the greater portion of the Manitou Planning Area has been identified as having high mining potential particularly those rock formations centred on the Manitou Lakes. Areas of moderate capability are small and dispersed throughout the planning area whereas areas of low potential tend to be larger and fringe the southern, eastern and northwestern peripheries.

At present, it is not economically viable to operate known mineral finds throughout the planning area because of the lack of good road access. A rise in mineral value combined with road access to facilitate mineral exploration and extraction may, however, encourage increased mining activity.

Various companies are now conducting mineral surveys near Gold Rock townsite and Mosher Bay of Upper Manitou Lake within a band of very high mineral capability stretching from Gold Rock to Manitou Island in the Lower Manitou. As well, areas of very high



**MAP 20: MINERAL CAPABILITY**

capability lying to the south of Esos Lake and in the vicinity of Pritchard and Flambeau Lakes to the north are also being surveyed in anticipation of increased mining activity.

d. Wildlife Capability

Regional Overview:

Although comprehensive wildlife studies have not been carried out in the Manitou Planning Area, it can be inferred from broad regional estimates that the area is of moderate regional significance for ungulate production.

On a regional scale, the moose population is of high significance as the planning area supports the most dense population in the region. The deer population tends to be of lesser significance because of relatively low density. Areas to the north and south of the planning area have deer population exceeding that of the latter.

The Manitou Planning Area:

1. Moose

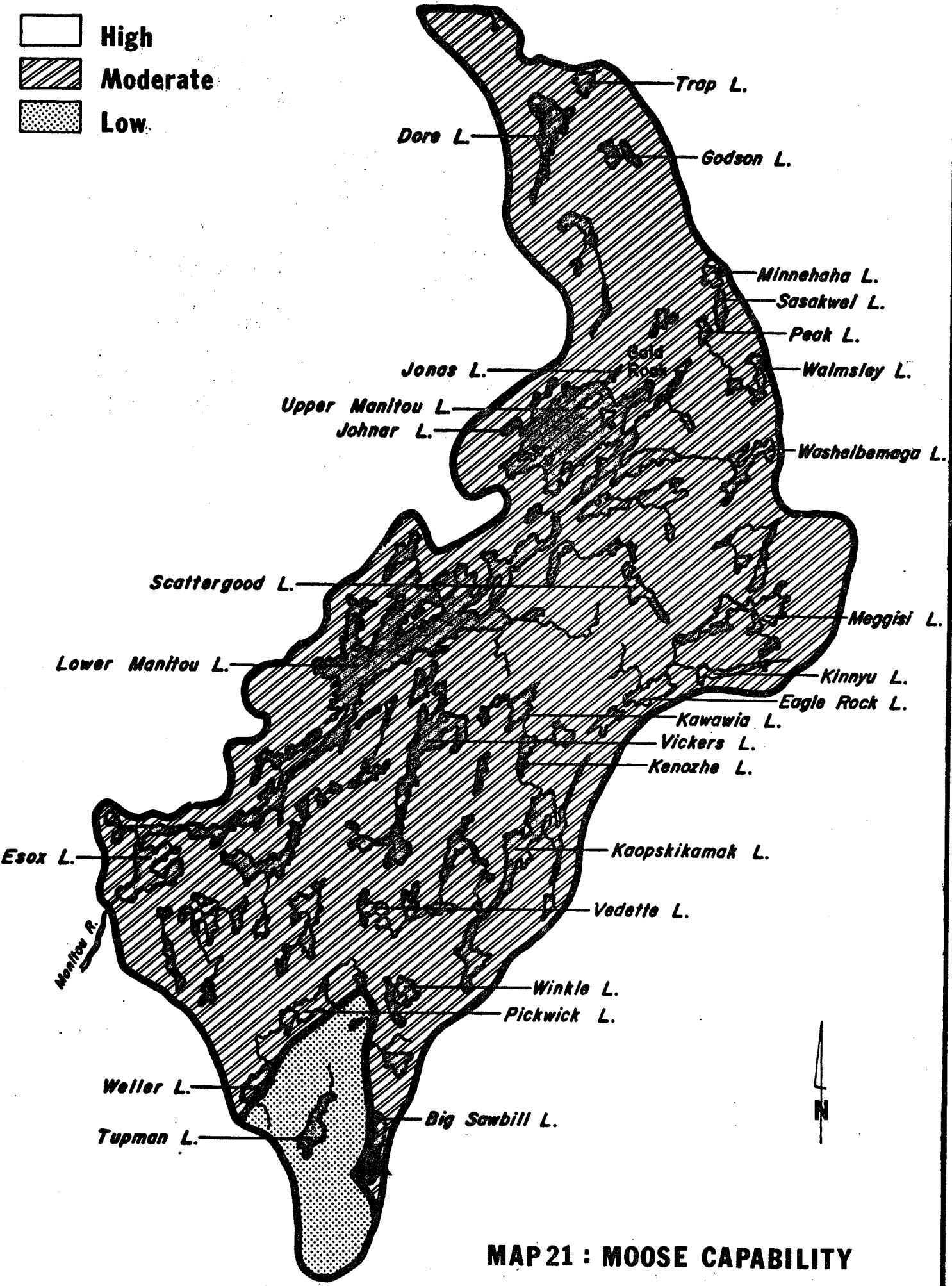
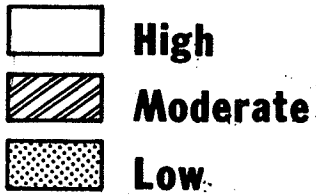
Map 21: Moose Capability shows the relative distribution of moose throughout the Manitou Planning Area. High, moderate, and low capability areas have been determined using the following relative scale:

Population per square mile	Capability Rating
.81	high
.21 to .80	moderate
less than .20	low

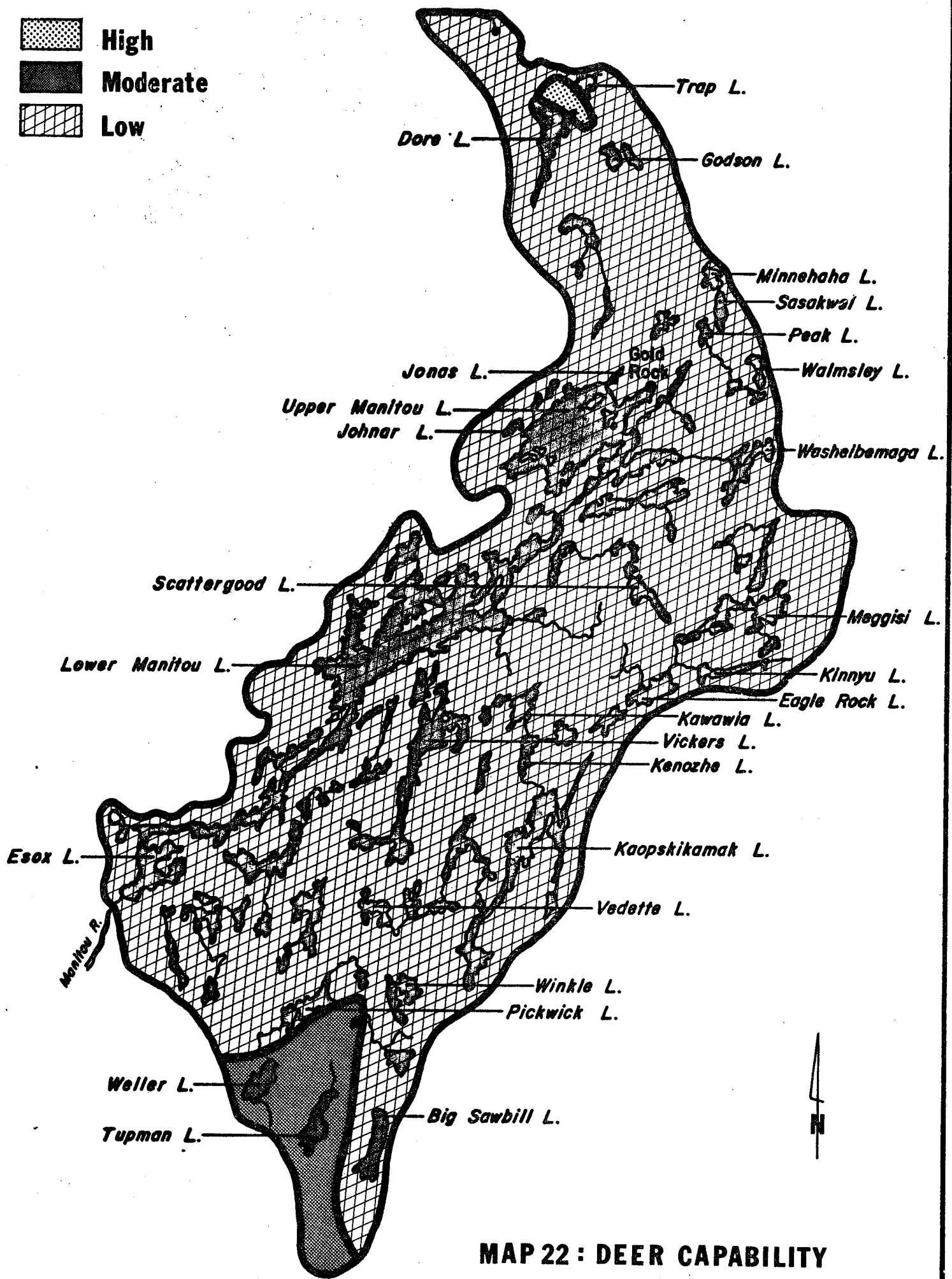
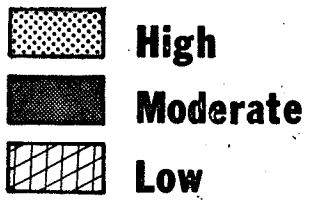
With the exception of a small area south of Pickwick Lake, the greater portion of the planning area can be classified as medium capability for the production of moose but still having better than average hunting potential.

2. Deer

Map 22: Deer Capability shows relative distribution of deer.



**MAP 21 : MOOSE CAPABILITY**



**MAP 22 : DEER CAPABILITY**

High, moderate, and low capability areas have been determined using the following relative scale:

Population per square mile	Capability Rating
15.1	high
5.1 to 15.0	moderate
less than 5	low

Generally, the planning area has a very low deer production capability with the exception of a small area south of Pickwick Lake and a few dispersed areas to the north of Dore Lake.

e. Fish Capability

Regional Overview:

Accurate data on sport fishing is not readily available but studies currently in progress will eventually produce data on the limits of the sport fisheries resources of the Manitou Planning Area.

On the basis of the number of oligotrophic water bodies located within its boundaries, the planning area is considered to have better than average capability for coldwater species fishing. Because of the lack of mesotrophic to eutrophic lakes, warmwater species angling is not considered to be as significant.

The Manitou Planning Area:

To illustrate the relative capabilities of the fisheries resources of the planning area, a generalized estimate using the following relative scale based on man hours spent fishing has been applied:

a. Warmwater Species:	Capability Rating
1 fish per man hour	high
1 fish per 1 to 5 man hours	moderate
1 fish per 5+ man hours	low

b. Coldwater Species

Fish Caught	Capability Rating
1 fish per 3 man hours	high
1 fish per 3-8 man hours	moderate
1 fish per 8+ man hours	low

The relative capabilities for warmwater and coldwater fish species to attract and sustain intensive angling is shown on maps 23 and 24 respectively.

f. Recreation Capability

Regional Overview:

On a regional scale, the Manitou Planning Area has high recreation capability. Generally, that portion of the area falling within Fort Frances District is of high capability as compared to that portion falling within Dryden District which is considered to have moderate capability.

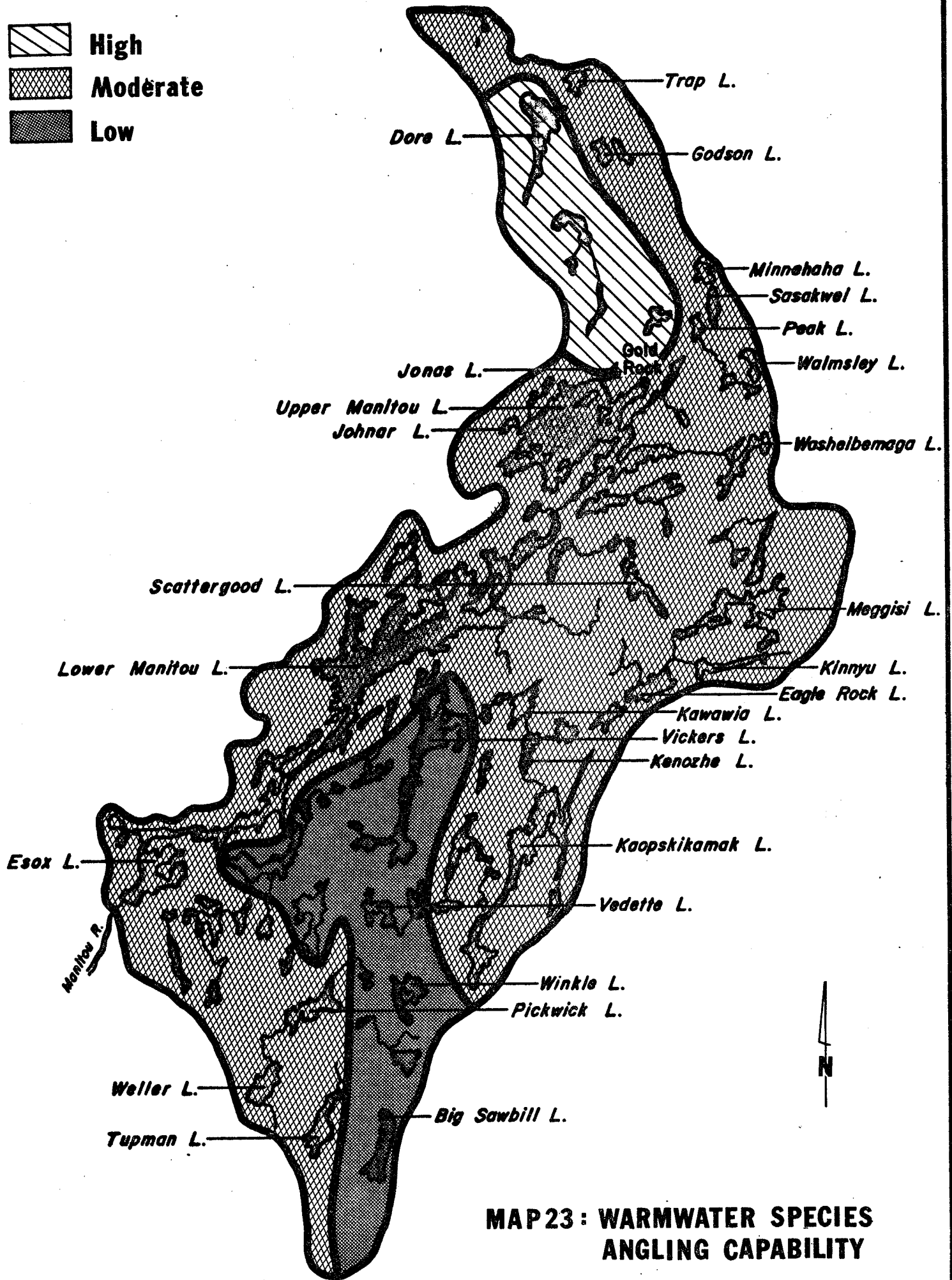
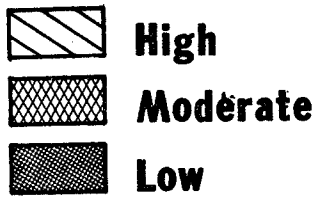
The Manitou Planning Area:

Throughout the planning area, shoreland units have a tendency to be of higher recreation capability than the upland. This tendency is particularly noticeable in an area to the south of Pickwick Lake and Vedette Lake.

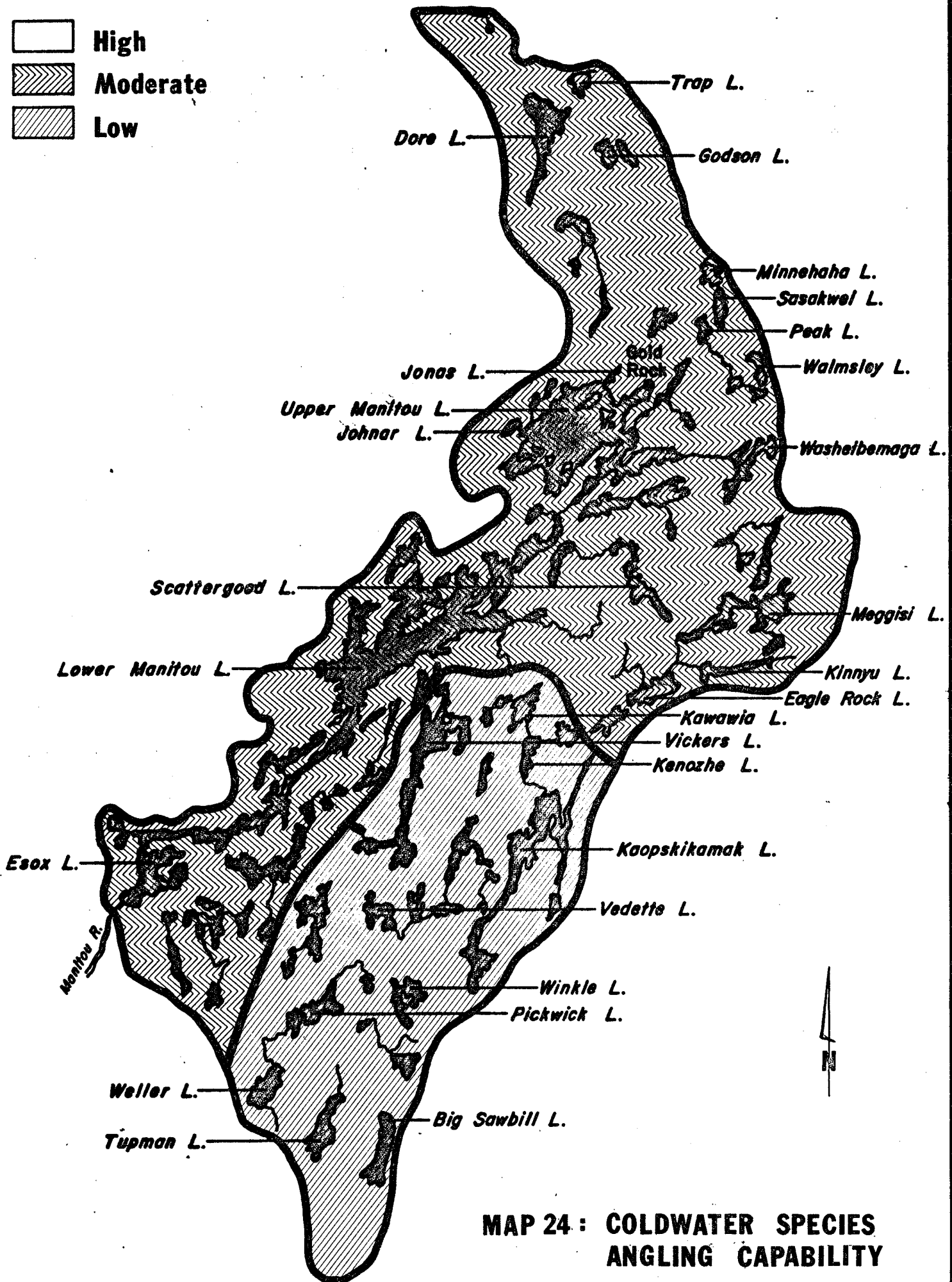
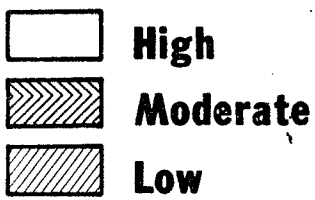
The Manitou Lakes system has moderate shoreland recreation capability with a few, small, dispersed high capability areas on the western shore.

Recreation activities which can be supported within the Manitou Planning Area's shoreland units include cottaging and camping with associated fishing, swimming and boating.

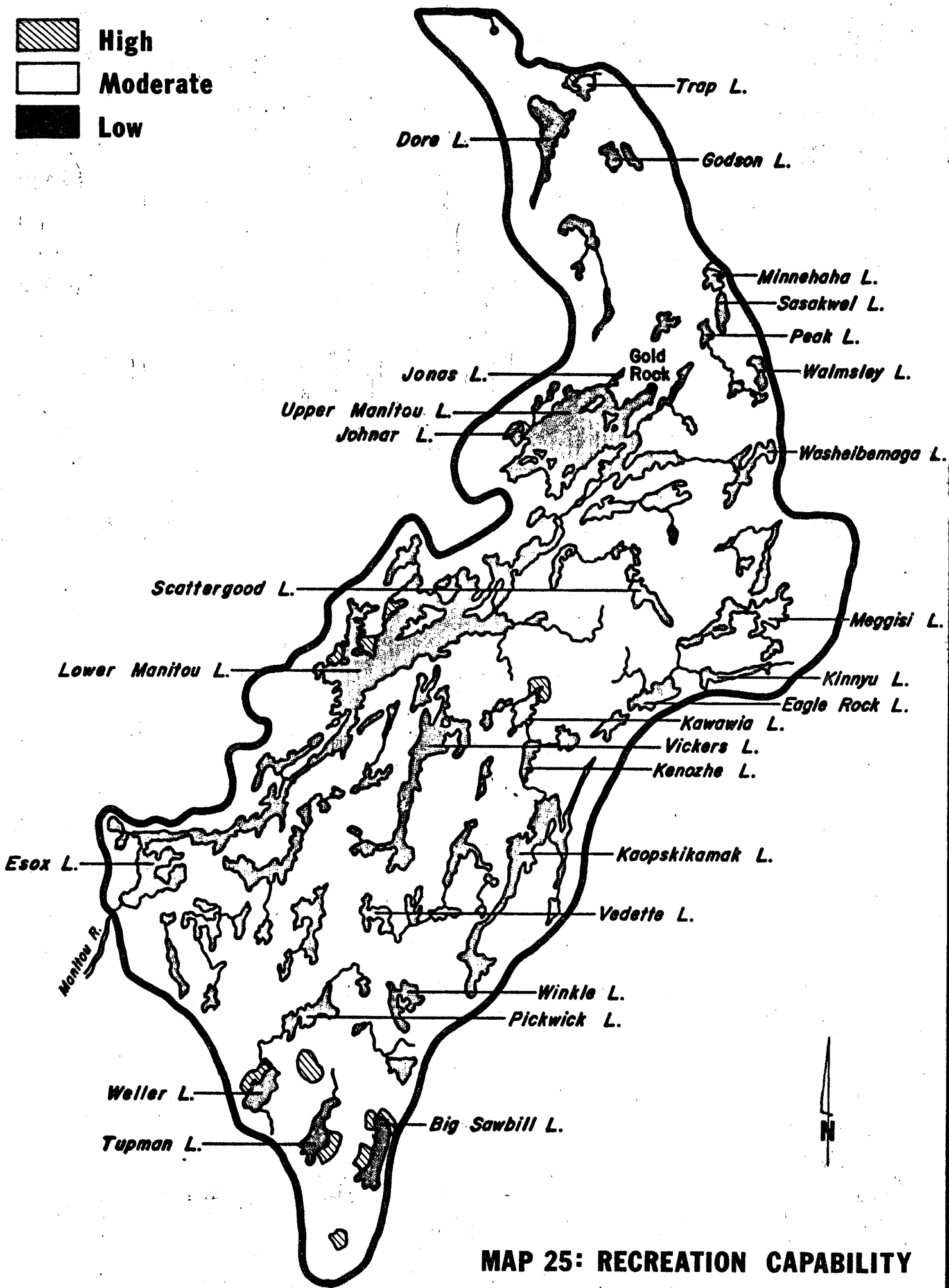
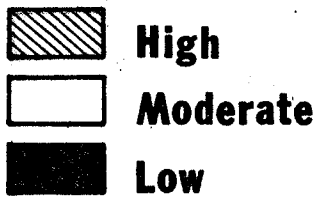
It is possible that some intensive recreation activities such as camping could be accommodated on the planning area's upland units which are generally of low recreation capability, however,



**MAP 23: WARMWATER SPECIES ANGLING CAPABILITY**



**MAP 24 : COLDWATER SPECIES ANGLING CAPABILITY**



**MAP 25: RECREATION CAPABILITY**

access is limited and future developments may conflict with resource extraction activities. One upland area combined with immediate shoreland recreation capabilities on Kawawia Lake appears to have sufficient capability for an intensive recreation area such as a provincial park.

The recreation capability of the Manitou Planning Area has been ranked on Map 25: Recreation Capability as high, moderate or low using Canada Land Inventory data and the following relative scale:

Canada Land Inventory Rank	Capability Rating
1, 2, 3	high
4, 5	moderate
6,7	low

OTHER PLANS:

Comprehensive land-use plans are non-existent in the Manitou Planning Area. There are, however, a number of single purpose plans in effect but which will not greatly affect the preparation of a zoning plan. These are:

a. Timber Management

With the exception of the islands of Upper Manitou Lake which are crown management timber units, the entire Manitou Planning Area is covered by the management plans of the Dryden Paper Company Ltd., and Ontario-Minnesota Pulp and Paper Company Ltd.

b. Fish and Wildlife

Under the overall direction of the Ministry of Natural Resources, the Manitou Planning Area has been divided into eighteen trapline licence areas.

c. 1970 Recreational Land-Use Zoning Plan

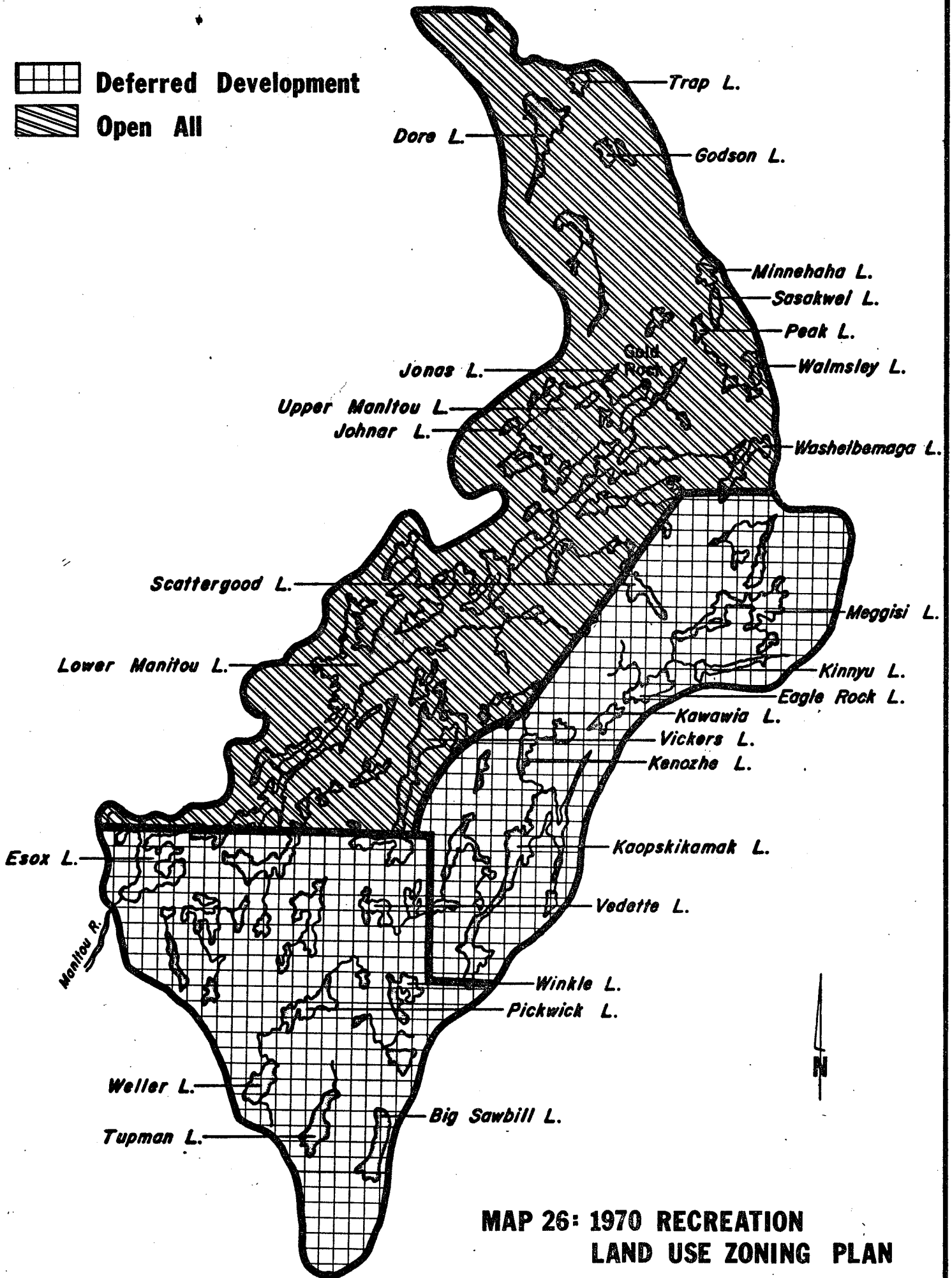
As illustrated on Map 26: 1970 Recreational Land-Use Zoning



Deferred Development



Open All



**MAP 26: 1970 RECREATION  
LAND USE ZONING PLAN**

the Manitou Planning Area has been subject to a form of zoning in the past. This zoning, however, is of a rather arbitrary nature and has proven ineffective in face of present development and management requirements.

ISSUE AND PROBLEMS:

a. Land and Water

1. Access to the Manitou Lakes System

The Ontario-Minnesota Pulp and Paper Company has projected that it will require a road crossing the Manitou Straits in the mid-Manitou Lakes area to gain access to forest reserves lying to the west of the planning area. As a result of the development of this road, it is anticipated that public demand will require its use for recreational access to the Manitou Lakes, thereby, creating conflict with the commercial resort operators now in the area. It has been pointed out by the commercial operators that over-fishing, garbage problems and in general, an end to their wilderness-based enterprise would likely result from an increase in crown land recreation.

At present, the major Manitou Lake access problem is centred on the Bat Lake Road to the south of Esos Lake. It is most likely that the large tourist and resident population centred around Fort Frances will place pressures upon the Ministry of Natural Resources and the Ontario-Minnesota Pulp and Paper Company to permit recreation travel along this road.

2. Crown land Camping and Access

It is anticipated that the Manitou Road will generate a large demand for camping and lake access opportunities and facilities along its length. Some concerns associated with this anticipated demand include garbage, land-use conflict, forest fires and unregulated access to waters which are considered sensitive to intensive recreation use. It has been suggested that designated

public campsites and lake access points could alleviate many of the problems if strategically located.

### 3. Cottaging and Commercial Resort Locations

It is anticipated on the basis of the varied recreation resources inherent in the planning area and its strategic location with regard to a major port of entry to Canada for tourists that the Manitou Planning Area will receive a number of demands for additional commercial resorts and cottages. Not having precise data available on the capabilities of the planning area for sites specific development, a systematic approach to commercial resort and cottage development is not possible.

#### d. Industry

##### 1. Timber Reserves

It is expected that logging operations along the length of the Manitou Road as well as along some of the shorelines of the planning area lakes will detract from the aesthetic quality of the Manitou Planning Area. It has been suggested that shoreline timber reserves and discreet cutting practices along the Manitou Road be implemented since a blanket reserve on logging operations would be impractical and of great cost to the operating company.

##### 2. Log Booms

The Ontario-Minnesota Pulp and Paper Company have indicated their intention to use log booms on Lower Manitou Lake and the Manitou River to float logs to Rainy Lake. It is likely that such log booms by depositing vegetative materials along the lake and riverbottom would in fact cause serious environment damage through water pollution in the form of oxygen depletion and increased acidity.

##### 3. Public Use of Forest Access Roads

As a result of the development of forest access roads and

possible public recreation use of such roads, it is expected that certain sensitive features of the Manitou Planning Area such as the coldwater species angling will suffer. As an answer to this problem, it has been suggested that all forest access roads with the exception of those along which there are sufficient known resources to accommodate extended recreational use should be closed to public use. It is also felt that roads no longer used for forest access by the logging companies should, in fact, be made impassable by appropriate means if environmental conditions cannot support people-intensive use.

Summary of Issues and Problems:

In summary, the major problems expected to occur in the Manitou Planning Area arise from the unregulated recreational use of crown lands facilitated by the company construction of forest access roads. As a result of the lack of strategic recreational opportunities and facilities, it is expected that public recreation demands and activity will be dispersed throughout the planning area.

The single most important problem with regard to future development is centred on the Manitou Lakes system. Being the largest water body in the planning area, it is likely that some industrial, commercial and public recreational demand for its resources will inevitably surface. Since it has already been determined that any additional development will affect the basis of the commercial resort operations in existence on the Manitou Lakes, as well as its environment and aesthetics, it is necessary to be extremely restrictive with regard to the form of land-use activities to be permitted in the near future.

## PART V: PLANNING STRATEGY

There are three general, alternative planning strategies which will form the parameters of this zoning plan. These three alternatives are discussed under the following headings:

1. Maintenance of the status quo (i.e. no further development)
2. Moderate development;
3. Rapid development;

### 1. MAINTENANCE OF THE STATUS QUO:

The underlying assumption of this planning concept is that the Manitou Planning Area should not undergo further development as a protective measure for its environmental quality.

#### Advantages:

The advantage of this planning concept is that it requires no large expenditures or changes in public policy to achieve development goals.

#### Disadvantages:

Without adequate planning, future developments in mining, forestry, and recreational facility expansion will occur in an ad hoc fashion. This type of development could conceivably lead to future land-use conflict and the deterioration of the environmental quality through unregulated land-use.

### 2. MODERATE DEVELOPMENT:

The underlying assumptions of this planning concept are:

1. that it is in the best interest of the planning area to regulate land-use by accommodating some forms of land-use in strategic locations;
2. that development should consider multiple land-use; and
3. that moderate development is the optimum method of protecting the environment quality through regulated land-use at this time.

Three spatial ramifications of this planning concept are:

1. concentrate all development within one zone;
2. concentrate development within one zone, and to a lesser degree in others; and
3. distribute development equally.

Advantages:

Analysis of the resource potentials of the planning area indicate that the area is capable of increased development in some areas but not in all zones. The selection of proposed development areas is therefore important in ensuring planned development and protective measures for the environment.

A planned moderate development will help remove many of the uncertainties of the Manitou Lakes and other zones brought about by the lack of information on land-use and demand. Through maintenance of a status quo on sensitive areas requiring further investigation and by providing strategic facilities and opportunities in others, it is possible to develop the area without severe pressures on the environment quality. This form of development, as an interim plan, can accommodate use until the impact of a completed Manitou Highway can be assessed. The main advantage will be regulated land-use with protection until studies have been completed.

Disadvantages:

If moderate development is planned equally throughout the planning area, the dispersion of facilities and opportunities somewhat defeats the protective measures desired by the plan. There are also disadvantages to a concentration of all development within one particular area. A concentrated form of development cannot adequately cope with all land-use demand dispersed along the Manitou Highway. This would inevitably create unregulated

land-use in areas without planned development and overuse of those with concentrated facilities and opportunities resulting in an environmental deterioration of that area.

### 3. RAPID DEVELOPMENT:

This planning concept demands a commitment to a rapid and dense development of the Manitou Planning Area without long-term studies or evaluation of resource capabilities.

#### Advantages:

Rapid development of the Manitou Area and, in particular, the Manitou Lakes could conceivably cope with any future demands on resources by making available the required facilities and opportunities.

#### Disadvantages:

Three major points of issue can be raised against the rapid development of the Manitou Planning Area. The first is that, such a program is costly in terms of monetary expenditures and possible environmental damage caused by overdevelopment stemming from the lack of accurate data. The second points out that rapid development could create land-use conflict throughout most of the area and, in particular, the Manitou Lakes with their established facilities. The third points out that once extensive access and facilities are provided through a general, rapid development program, it will be difficult to regulate land-use to those areas of highest capability.

#### RECOMMENDATIONS:

Analysis of the three preceding planning strategies indicates that moderate development is the most feasible course for an interim zoning plan at this time.

PART VI: THE INTERIM ZONING PLAN:

The proposed zoning plan is shown on Map 27. This plan identifies five development areas within the Manitou Planning Area and gives the proposed uses and maximum degrees of use for each. These zones express the development of each in general terms and on a short term basis and will be subject to change upon completion of a detailed plan of the Manitou Area.

The coding used on Map 27 is shown in Appendix A, B, and C along with the criteria used in their determination.

ZONE NUMBER I AREA DESIGNATION - 4M

Total Area - 81 square miles

Present Development Degree - 6

KNOWN SENSITIVE OR STRATEGIC FEATURES: Nil

EXISTING DEVELOPMENTS:

Cottages - Nil

Trapper Cabins - Nil

Lodges - Nil

Commercial Service Establishments - Nil

Resource Extraction - logging - Ontario-Minnesota Pulp and Paper Company,

Public Recreation Areas - Nil except for a few unofficial campsites.

Access Roads - At the north end there are approximately 25 miles of logging roads built by the Dryden Paper Company.  
- as of December, 1974, there are approximately 35 miles of the new Manitou Road built within this zone.

Access Points - unserviced access exists to the following lakes, Vedette, Trap, East Godson and Big Sawbill.

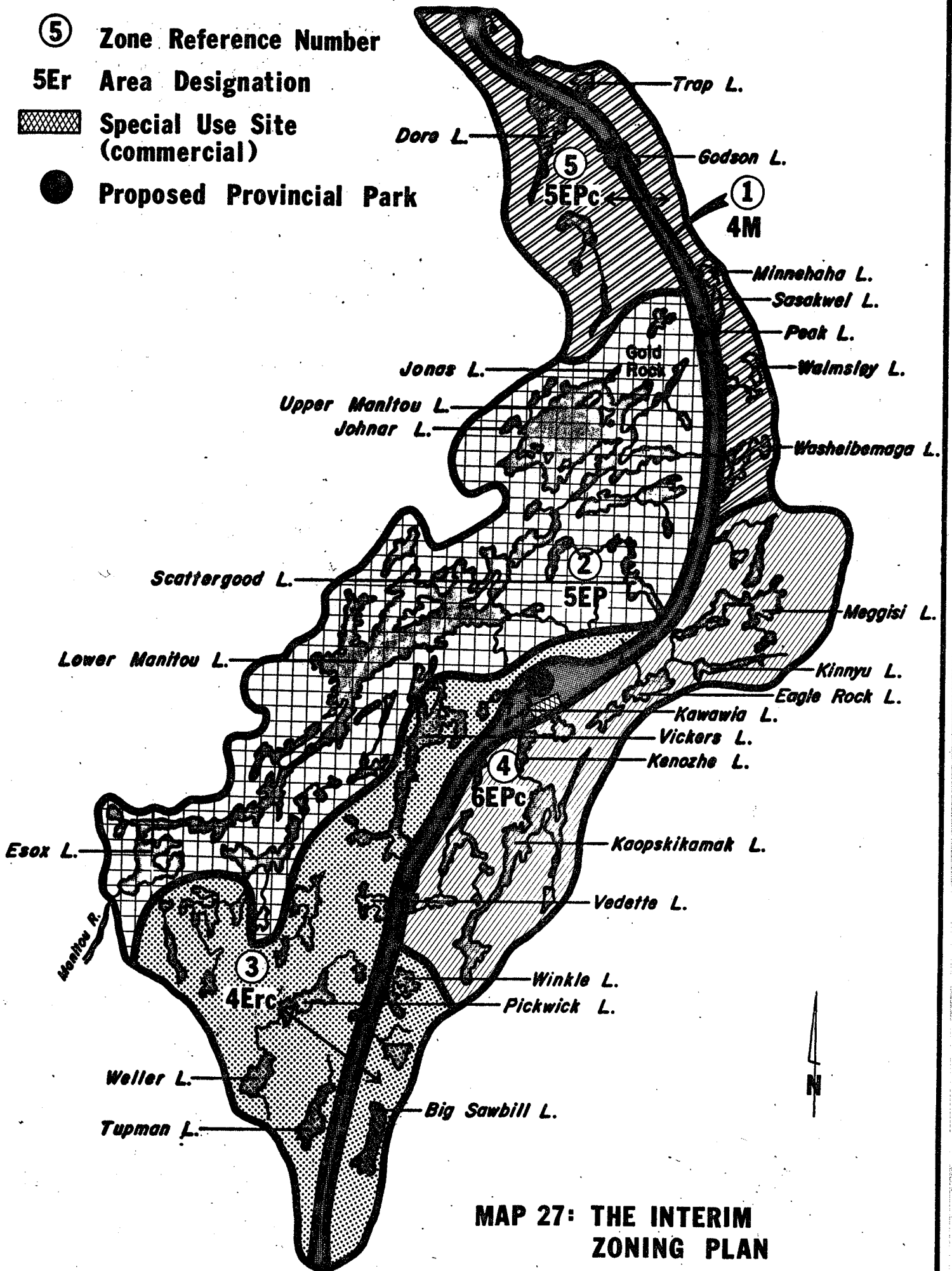
Other - Nil

⑤ Zone Reference Number

5Er Area Designation

Special Use Site  
(commercial)

Proposed Provincial Park



#### MANAGEMENT POLICY

Land Use - This is to be a one mile wide zone centred on the proposed right-of-way of the new Manitou Road. The area is designated for commercial service, public recreation and discreet resource extraction.

#### PROPOSED ADDITIONAL DEVELOPMENT

1. Access Points -
  - a. Trap Lake
  - b. Peak-Sasakwei Lake
  - c. Scattergood Lake
  - d. Kinnyu Lake
  - e. Eaglerock Lake
  - f. Kawawia Lake
  - g. Kenozhe Lake
  - h. East Godson Lake
  - i. Big Sawbill Lake
  - j. Vedette Lake
2. Access Roads - for resource extraction and access to commercial resorts, proposed provincial park, and access points.
3. A tentative Provincial Park at Kawawia Lake.
4. One commercial service centre complex (within highway zone) near Kawawia Creek.
5. One designated Crown Land camping area at East Godson Lake.
6. Two commercial resorts within the highway zone - one at Vickers Lake and one at Winkle Lake.

#### DEVELOPMENT GUIDELINES:

Official Class 1 or 2 access points will be developed based on

demand and availability of funds at the ten locations mentioned above. Existing access at Trap and East Godson Lake will be closed off and new access points is established at Kawawia Lake it may be necessary to close that access point. Access roads off the Manitou will be permitted into neighbouring zones for resource extraction. While the Manitou Road is presently primarily for resource use, it obviously will be used by residents and non-residents for recreational purposes. In order to preserve the aesthetic quality of the landscape in this zone, the standard Ministry of Natural Resources shoreline and main roadside timber reserves will be maintained. Deviations from these standards and management methods within these reserves are negotiable between the Ministry and Ontario-Minnesota Pulp and Paper Companies. Where deemed necessary by the Ministry, stand regeneration within these reserve boundaries will receive priority. Logging slash will be removed from within 200 feet of either side of the Manitou Road right-of-way or the tops lopped and the branches scattered. This decision will be at the discretion of the Ministry. An area at Kawawia Lake has been tentatively set aside for a Provincial Park. Future ground investigations will confirm whether this site is satisfactory. Once these studies have been completed, a Provincial Park Reserve will have to be negotiated with the Ontario-Minnesota Pulp and Paper Company.

A commercial service centre complex will be permitted within this zone in the Kawawia Creek area to service the proposed Provincial Park and travelling public. If the establishment of a Provincial Park is not settled for some time or is dropped at this location altogether, such a complex may be permitted in the same general area provided the traffic flow and demand indicates that such an operation would be economically viable. If other service centre complexes are required they should be located outside of the Planning Area closer to Fort Frances and Dryden.

A designated Crown land camping area and access point will be established on East Godson Lake when and if conditions warrant. One commercial site on Winkle Lake and one on Vickers Lake will be permitted on sites suitable to the Crown. No other commercial operations will be permitted in this zone.

ZONE NUMBER 2

AREA DESIGNATION - 5 E P

Total Area - 316 square miles

Present Development - 5

KNOWN SENSITIVE OR STRATEGIC FEATURES:

1. Manitou Stretch pictographs (see Dryden District Sensitive Areas Report).
2. Cemetary at Gold Rock on patented land (see Dryden Sensitive Areas Report).
3. Canoe Route #11 - Fort Frances to Dryden.
4. Upper and Lower Manitou Lakes - one of the best remaining large lake trout lakes in the area.

EXISTING DEVELOPMENT:

Cottages - 24 (mostly American)

Trapper Cabins - 3

Lodges - 8, five operative in 1974

Outpost Camps - 3

Commercial Service Establishments - Nil

Resource Extraction - logging - Ontario-Minnesota Pulp and Paper Company.

- mining - some exploratory drilling

Public Recreation Areas - Nil, except for unserviced campsites used by canoeists and commercial operators on lake.

Access Roads - approximately 10 miles of old seasonal logging roads.

Access Points - unserviced access exists to the following lakes - Johnar, Alonghill, Jonas and from Minnehaha Lake to Gold Rock townsite. Water access to the Manitou Lakes is available from these locations.

Other - Old mine shafts and mine buildings in the Gold Rock area.

**MANAGEMENT POLICY:**

Land-Use - No further expansion of public private and commercial recreational facilities to occur until detailed studies of the Manitou Lakes and its watershed area have been completed. Normal resource extraction will occur except in sensitive areas. Mining is a possibility in the future.

**PROPOSED ADDITIONAL DEVELOPMENT:**

1. Access roads for resource extraction.

**DEVELOPMENT GUIDELINES:**

Road access to the Manitou Lakes is to be maintained as is until a detailed lake management plan is done for the Manitou Lakes. Request Dryden Paper Company to restrict construction of the Mosher Bay road to a point approximately one mile from the shore of Mosher Bay to restrict access to Manitou Lakes. Balance of area could be logged in winter. Also request Ontario-Minnesota Pulp and Paper Company to restrict construction of the Bat Lake road one mile distant from Lower Manitou Lake (Alonghill Lake access point) and as far as possible from Mirror Bay on Esox Lake. Present intentions of Ontario-Minnesota Pulp and Paper Company are to cross at Cedar Narrows at the south end of the Esox Lake on the Manitou River with the Bat Lake road. The normal 400 foot shoreline timber reserve is to be maintained on all lakes considered necessary by the Ministry. Operating and regeneration methods within these reserves are negotiable between the Ministry

of the paper companies. Any logging operations on the Crown Management Unit on Upper Manitou Lake should be carried out under strict controls (apparently there is little likelihood of any operations taking place). There shall be no further disposition of Crown Land for private or commercial recreational purposes until the detailed lake development plan for the Manitou Lakes is completed. If any resource extraction camps are required in this zone, they should not be located on Esox, Upper Manitou or Lower Manitou Lakes.

Zone Number 3

AREA DESIGNATION -4 E r c

Total Area - 195 square miles

Present Development Degree - 6

KNOWN SENSITIVE OR STRATEGIC FEATURES:

1. Vickers Lake Pictograph (see Fort Frances District Sensitive Area Report).
2. Canoe Route #3 - Vickers Lake Loop.

EXISTING DEVELOPMENT:

Cottages - 2

Trappers Cabins - 5

Lodges - Nil

Outpost Camps - 1 (Vickers Lake)

Resource Extraction - logging - Ontario-Minnesota Pulp and Paper Company

Public Recreation Areas - Nil except for a few scattered campsites.

Access Points - unserviced access exists to Tupman Lake.

Other - Armstrong Construction Camp.

MANAGEMENT POLICY

Land-Use - This is to be a multiple use area designated for

resource extraction, general recreation (private and public) and commercial based recreation.

PROPOSED ADDITIONAL DEVELOPMENT:

1. Access Roads - primarily for timber extraction.  
- where necessary for cottage and commercial resort sites and official access points.
2. Cottages - number and location to be determined.
3. Commercial Resorts - number and locations to be determined.
4. Outpost Camps - number and location to be determined.
5. Access Points - number and location to be determined.

DEVELOPMENT GUIDELINES:

Where practical the location of access roads for resource extraction should try and serve other proposed uses where desirable. Maintain shoreline timber reserves around lakes designated by the Ministry. Operating and regeneration methods within these reserves are negotiable. Sites for commercial resorts (including outpost camps), cottages and public use will be located on these lakes capable of maintaining sustained use without adverse effects on water quality or causing site deterioration. Sites to be allocated only after completion of individual management plans. Future conflicts between cottages, commercial operations and public use facilities are to be avoided. Access points will be developed as the Bat Lake and Weller Lake road system progress and according to public demand and availability of funds. Access to waters supporting coldwater species is to be controlled by the Ministry.

ZONE NUMBER 4

AREA DESIGNATION - 6 E P c

Total Area - 152 square miles

Present Development Degree - 6

KNOWN SENSITIVE OR STRATEGIC FEATURES:

1. Canoe Route #3 - Vickers Lake Loop

EXISTING DEVELOPMENT:

Cottages - Nil

Trapper Cabins - 1

Lodges - Nil

Outpost Camps - 5

Commercial Service Establishments - Nil

Resource Extraction - logging - Ontario-Minnesota Pulp  
and Paper Company.

Public Recreation Areas - Nil

Access Roads - Nil

Other - Nil

MANAGEMENT POLICY:

Land Use - A multiple use area designated for resource extraction, public recreation and commercial recreation in the form of outpost camps, (portable structures within present M.N.R. definition).

PROPOSED ADDITIONAL DEVELOPMENT:

1. Access Roads - for resource extraction.
2. Outpost Camps - a maximum of three new ones.

DEVELOPMENT GUIDELINES:

As this zone is predominantly an area of oligotrophic lakes the logging companies are requested to keep roads as far as possible away from shorelines unless requested otherwise by the Ministry. Shoreline timber reserves are to be maintained on water bodies designated by the Ministry. Operating and regeneration methods within the reserves are negotiable. No public access points will

be established in this zone. Public can gain water access to this zone from access points established in zone 1. The public will be able to have road access to this zone when resource extraction roads are built. However, road access to designated lake trout lakes will be controlled.

Commercial recreational development will consist of from one to three additional portable camps on lakes and sites designated by the Ministry.

ZONE NUMBER 5

AREA DESIGNATION - 5 E P c

Total Area - 101 square miles

Present Development Degree - 6

SENSITIVE OR STRATEGIC FEATURES:

1. Speckled Trout at Snowfall Lake.

EXISTING DEVELOPMENT:

Cottages - 2

Trapper Cabins - 1

Lodges - Nil

Outpost Camps - Nil

Commercial Service Establishments - Nil

Resource Extraction - logging - Contact Bay landing -  
Dryden Paper Company

Public Recreation Areas - Nil except for a few scattered  
cottages.

Access Roads - seasonal and all-weather - approximately 12  
miles.

Access Points - unserviced access exists to the following  
lakes - Dore, Snowfall, Ukik and Ukik South.

Other - Nil

#### MANAGEMENT POLICY

Land Use - A multiple use area of resource extraction, public recreation and commercial recreation.

#### PROPOSED ADDITIONAL DEVELOPMENT:

1. Access Roads - for resource extraction and access to the commercial location and access point on Dore Lake.
2. Access Point - Dore Lake (north end).
3. Commercial Recreation - one commercial resort on Dore Lake.

#### DEVELOPMENT GUIDELINES:

Shoreline timber reserves to be maintained on lakes designated by the Ministry. Operating and regeneration methods are negotiable with these reserves. The site for the commercial resort on Dore Lake is to be allocated by only after completion of a lake management plan for Dore Lake. An official access point will be developed on the north end of Dore Lake if required.

#### SUMMARY:

The implementation schedule of the Manitou Planning Area Interim Zoning Plan will be for an interim period pending the completion of the projected Ontario Strategic Land-Use Plan (S.L.U.P.). This plan will operate as a sub-regional plan under the following provincial land-use planning heirarchy:

- (a) province
- (b) region
- (c) sub-region
- (d) strategic
- (e) local

It is the intention of the Manitou Planning Area Interim Zoning Plan to allow for periodic review and choice of land-use

options through a tactical form of zoning. Tactical zoning using designated land-uses as opposed to a designated zone encompassing a variety of land-uses serves better to meet the goals and objectives of this plan. As much as the environment and associated support capabilities change so will land-uses as required through periodic review.

Periodic reviews of this plan will not alter zonal boundaries; only the land-use type and degrees of land-use will be altered. Any future change in land-use designation will be based on the results of monitoring of the environment and changes in public demand.

In the near future few noticeable changes will occur as a result of this plan. The most obvious change will be the construction of lake access points as the development of the Manitou Road progresses in a northerly direction. These access points will in effect serve to regulate the number of lakes to which the public will have access. This is primarily a conservation measure based on the sensitivity of the waters within the planning area, but will also provide for the public a convenience in facilitating access to a limited number of lakes.

Cottages and other lakeshore development is not recommended in this plan until adequate data on resources, uses and potentials has been accumulated to form a basis for viable lake management planning. This plan has recognized the urgency for commercial resort locations but only on those lakes which can reasonably support the recreation use generated and which have no commercial development as yet.

The second most obvious change in land-use will be to the south within Fort Frances District on those lands designated for commercial resort development in this plan. It is expected that the major user demand will also be located to the south being that

this area is proximate to a larger population to a larger population concentration and an international port of entry.

To cope with the anticipated recreation demand, a provincial park, commercial service area plus a designated roadside camping area have been located by this plan. These facilities will regulate some forms of recreational activity on lands incapable of supporting them by offering the required facilities in strategic locations.

This plan does not offer a solution to the lake fishery problem. It is recognized in this study that the fish population is declining in those areas having had road access for a number of years. Those areas exhibiting higher fishing potential are to a degree protected by the development proposals included in this plan. This is applicable primarily to zones number two and four. It is suggested that the answer to the fishery problem is a considerable reduction in the fishing season. As commercial resorts, in particular those on the Manitou Lakes, are based on fishing for an extended operating season, a shorter season may be difficult to implement.

In summary, the Manitou Planning Area Interim Zoning Plan recommends relatively sparse development leaving the greater percentage of lakes, islands and mainland undeveloped. The opportunity then remains to introduce or delete those land-use changes considered necessary in review. Focused on the Manitou Road, the Manitou Planning Area remains in essence a wilderness with stringent land-use controls.

Appendix A

DEVELOPMENT UNIT SCORING SYSTEM

		Development Unit Score
Seasonal Residences	per single family unit	1
Permanent Residences	single family unit	2
Other Permanent Buildings or Developments e.g. industries, stores, gas stations	per 5 employees	2
Roads	paved, per mile	3
	gravel	
	all weather, per mile	2
	seasonal, per mile	1
Railroads	per mile	2
Major Power Lines	per mile	1
Pipelines	per mile	1/2
Docks and Dam Structures	per 100 lineal feet	1
Campgrounds and Roadside Developments and Access points	per 5 acres developed	1
Garbage Dumps	per acre	2
Quarries, Pit, Slag Heaps	per acre	1

Source: Guidelines for Land-Use Planning, Ontario Ministry of Natural Resources, 1974.

Appendix B

DEGREE OF DEVELOPMENT CLASSES

1. Very Dense	32 or more development unit per square mile					
2. Dense	16-31	"	"	"	"	"
3. Moderately Dense	8-15	"	"	"	"	"
4. Moderate	4-7	"	"	"	"	"
5. Moderately Sparse	1-3	"	"	"	"	"
6. Sparse	Less than 1	"	"	"	"	"
7. Very Sparse	No significant development					

Appendix C

LAND USE CODES

- U Urban
- A Agriculture
- E Resource Production and Extraction
- G Commercial Based Recreation
- R General Recreation Private and Public
- P Public Recreation
- M Mixed Uses
- S Special use - to be specified

Use relationships may be shown as follows:

1. A single capital letter (except for M) indicates exclusive single use.
2. A capital letter followed by a small letter (or letters) indicates the highest priority (or primary use) followed by the other uses of lower priority. Priority in this case indicates both the investment policy of the government and the primacy of land use.

An example of a typical map coding would be 4Re. This code suggests an area of moderate degree of development primarily for recreation but with resource extraction and production as a secondary use.

Source: Guidelines for Land-Use Planning, Ontario Ministry of Natural Resources, 1974.

Appendix D

COMMERCIAL FISHING CATCH 1965 - 1973

The following table shows the average and total yearly catch in pounds of fish for both the Upper and Lower Manitou areas:

YEARS	UPPER MANITOU	LOWER MANITOU
1965	-	10,954
1966	-	8,078
1967	-	-
1968	18,058	-
1969	4,075	5,653
1970	-	13,408
1971	-	5,195
1972	-	-
1973	<u>17,945</u>	<u>5,225</u>
TOTAL	40,078	48,513
AVERAGE	13,359	8,086

Appendix E

TRAPLINE LICENCES & INCOMES

The following table shows the average income for the past three years for those traplines located within the Manitou Planning Area.

AVERAGE INCOME IN DOLLARS	NUMBER OF TRAPLINES
1400+	15
1000 - 1500	1
500 - 1000	1
Less than 500	<u>1</u>
	18

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- a. Operating Plan, Manitou Concession for the period January 1, 1974 to December 31, 1976, Ontario-Minnesota Pulp and Paper Company Limited.
- b. Management Plan, Licence #327100, (Schedule A & C, B), Dryden Paper Company Ltd., covering the period 1971-1991, July, 1972.
- c. Dryden Paper Company Ltd., Woodland Division, Operating Plan covering the period, April 1, 1974 to March 31, 1976, March, 1974.

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- b. Management Plan, Licence #327100, (Schedule A & C, B), Dryden Paper Company Ltd., covering the period 1971-1991, July, 1972.
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