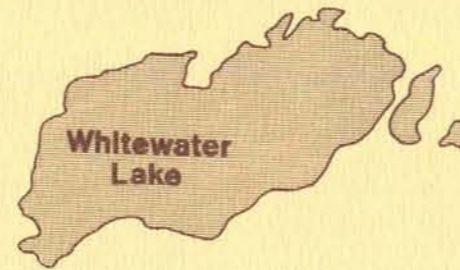




Turtle Mountain Provincial Park

management plan

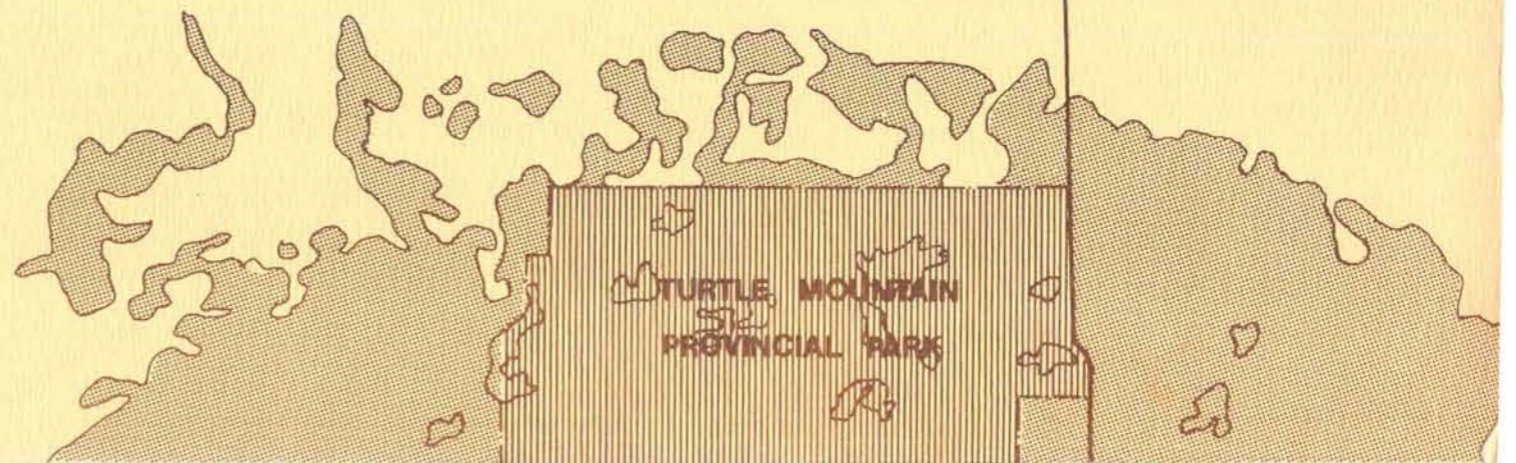


Boissevain

Manitoba
Natural Resources
Parks



Celebrating 25 Years
1960 — 1985



*TURTLE MOUNTAIN PROVINCIAL PARK
MANAGEMENT PLAN*

**Manitoba
Natural Resources
Parks**



*Celebrating 25 Years
1960 — 1985*

APPROVED

A handwritten signature in black ink, appearing to read 'Samuel Uskiw'. The signature is fluid and cursive, written over a light-colored background.

*SAMUEL USKIW
MINISTER OF NATURAL RESOURCES*

SEPTEMBER 1985

TABLE OF CONTENTS

	Page
1. INTRODUCTION	1
1.1 Planning Process	1
1.2 Classification and Park Precepts	2
2. BACKGROUND	3
2.1 Natural Resources	5
2.2 Present Recreation Use and Development	8
2.3 Commercial Resource Use	11
2.4 Recreation Capability and Significant Features	13
3. ZONING	17
3.1 Special Areas	17
3.2 Backcountry Zone	19
3.3 Recreation Zone	19
3.4 Commercial Resource/Recreation Zones	20
4. PARK DEVELOPMENT AND MANAGEMENT	21
4.1 Natural and Cultural Resource Management	21
4.2 Recreation Facilities and Services	25
4.3 Commercial Resource Management	31
4.4 Implementation	32
 BIBLIOGRAPHY	 34

LIST OF MAPS AND FIGURES

	Page
Map 1 Regional Setting	3
Map 2 Present Land Designations	4
Map 3 Lake Depths	6
Map 4 Present Recreational Use	10
Map 5 Resource Extraction	12
Map 6 Outdoor Recreation Capability	14
Map 7 Significant Features Composite	16
Map 8 Land Use Zones	18
Map 9 New Recreation Facilities	28
 Max Lake Development Concept	 26

1. INTRODUCTION

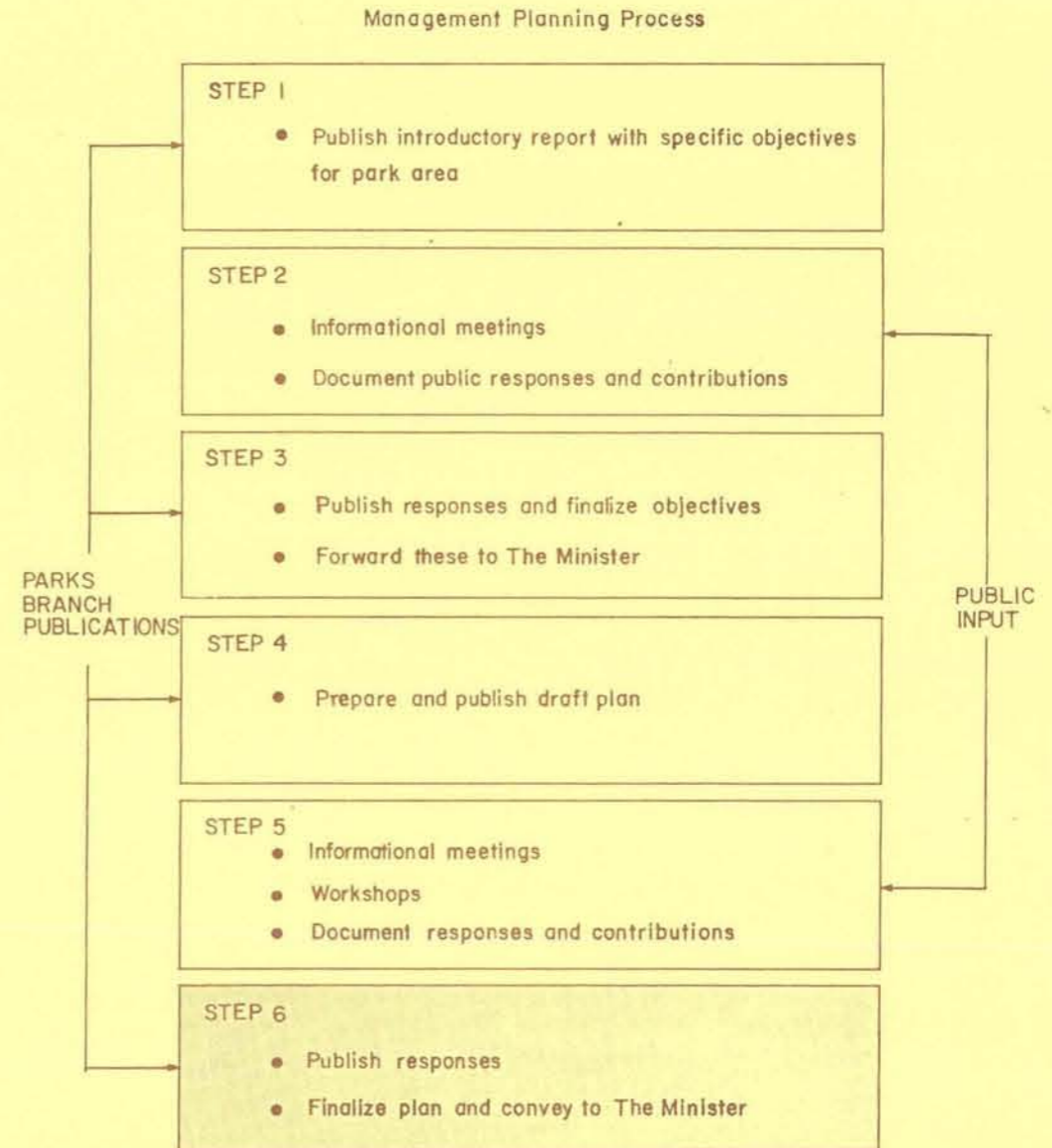
The Turtle Mountain Management Plan provides long-term guidance for the development and management of the park. The plan has been prepared through an assessment of such factors as environmental capability, present land use, anticipated future recreational demands and through public input and participation.

This document presents the basic precepts which define Turtle Mountain's role in the provincial park system; it describes the park's resource base and present use; illustrates four land-use zones and discusses management techniques and development initiatives to be undertaken during the life of the plan.

The management plan will be reviewed periodically to meet changing circumstances and a general updating of the plan will be undertaken every ten years.

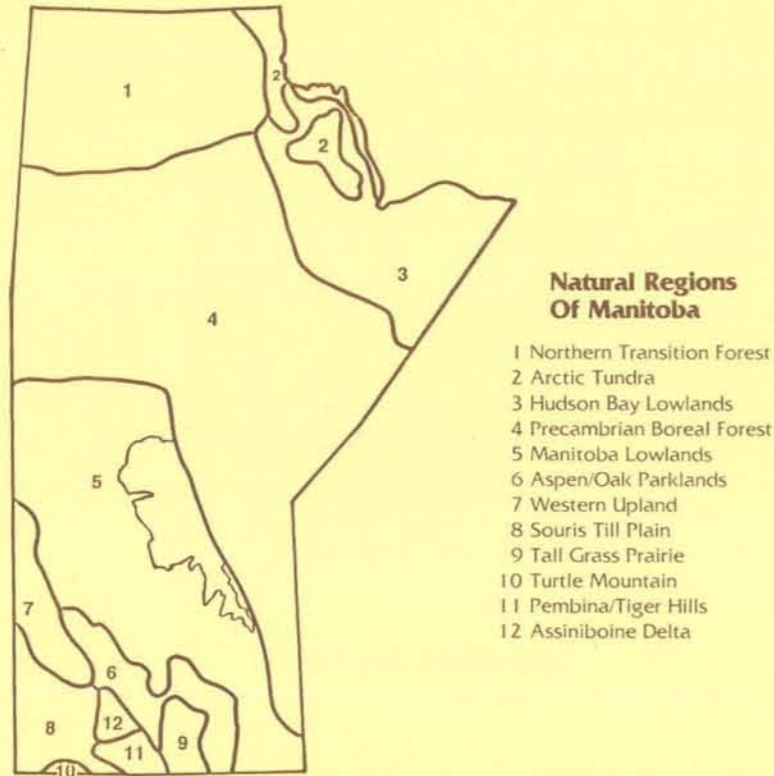
1.1 Planning Process

In early 1981, the Manitoba Parks Branch began the planning process for Turtle Mountain Provincial Park. Background data was collected and meetings held with other government agencies to assist in the publication of Part 1: Objectives for Turtle Mountain. These objectives were reviewed at meetings in Boissevain and Winnipeg, the public responses evaluated, and several objectives were subsequently modified. For the most part, however, public feedback indicated support for the draft objectives. A Progress Report and Final Objectives was published and distributed in the spring of 1982. These final objectives provided the basis for preparation of the Draft Management Plan in October 1984. The results of public review of the draft plan were presented in a summary report distributed to all members of the public who participated in the planning process.



1.2 Classification and Park Precepts

Turtle Mountain Provincial Park is an important part of the province-wide park system. The Manitoba Park System Plan identifies twelve distinctive natural regions or landscapes in the province. Turtle Mountain Provincial Park is representative of one of these, the Turtle Mountain Natural Region.



This upland is the only area of the province underlain by rock dating from the Cenozoic period, making it the "youngest" land in the province, geologically speaking. Also unique in Manitoba are the pure hardwood forests which crown the summit of the mountain. The regional

setting - a forested, lake-dotted upland surrounded by flat agricultural lands, increases the regional significance of the natural and recreational resources found within the park.

Because of its distinctive characteristics and capabilities, Turtle Mountain Provincial Park has a specific role to fulfill within the Provincial Park System.

Based on both a regional and a province-wide review of this park's significant natural and cultural features, the present and anticipated level of recreational use to be accommodated and the ongoing level of park resources committed to commercial uses, Turtle Mountain has been classified as a Natural Park.

Natural Parks are areas that possess exceptional value or quality in illustrating or interpreting the natural landscapes of Manitoba. They are capable of providing a wide range of outdoor recreational opportunities and are generally capable of accommodating commercial extraction/harvest activities.

The following park precepts have been developed to further define the role of this park in the Provincial System. The park will:

PROTECT AND MAINTAIN VEGETATION AND WILDLIFE COMMUNITIES REPRESENTATIVE OF THE TURTLE MOUNTAIN NATURAL REGION.

PROVIDE A VARIETY OF RECREATIONAL EXPERIENCES SUITED TO ITS WOODED UPLANDS AND ENHANCE, WHERE POSSIBLE, ITS REGIONALLY IMPORTANT WATER-BASED RECREATIONAL OPPORTUNITIES.

PROTECT AND PRESERVE EXAMPLES OF UNALTERED HARDWOOD FOREST, ORCHIDS, AND NATIVE ANIMAL SPECIES, SUCH AS THE WESTERN PAINTED TURTLE, SO THAT THESE SPECIES CAN CONTINUE AS PART OF THE LIVING HERITAGE OF SOUTHWESTERN MANITOBA.

2. BACKGROUND

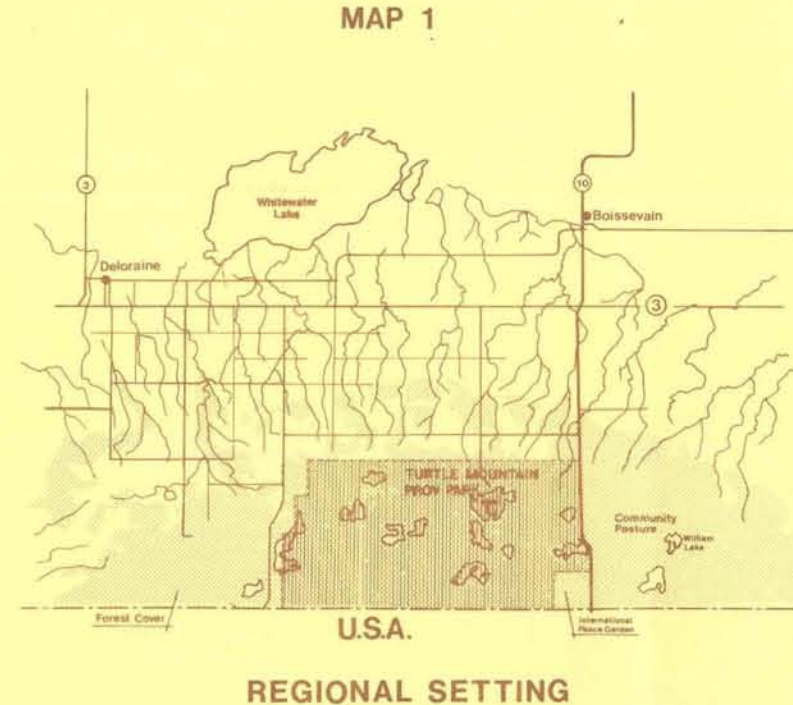
Located in southwestern Manitoba along the United States-Canada border, Turtle Mountain Provincial Park is representative of the provincially significant Turtle Mountain upland.

Boissevain, Deloraine and Killarney are the main centres in the region surrounding the park (Map 1). Access to these communities and to the park area can be gained from two major highways which service the area: P.T.H. 10 and P.T.H. 3.

The upland, which is completely surrounded by private landholdings, is composed of three blocks of land: the Provincial Park, the P.F.R.A. Community Pasture, and the International Peace Garden. The entire park area is also a Provincial Forest Reserve, as is a small portion of the upland east of P.T.H. 10 (Map 2).

Much of the park area's history is dominated by agricultural settlement. During initial settlement Turtle Mountain was designated as a Dominion Forest Reserve to serve as a source for fuelwood and other products such as fence posts for the surrounding agricultural communities.

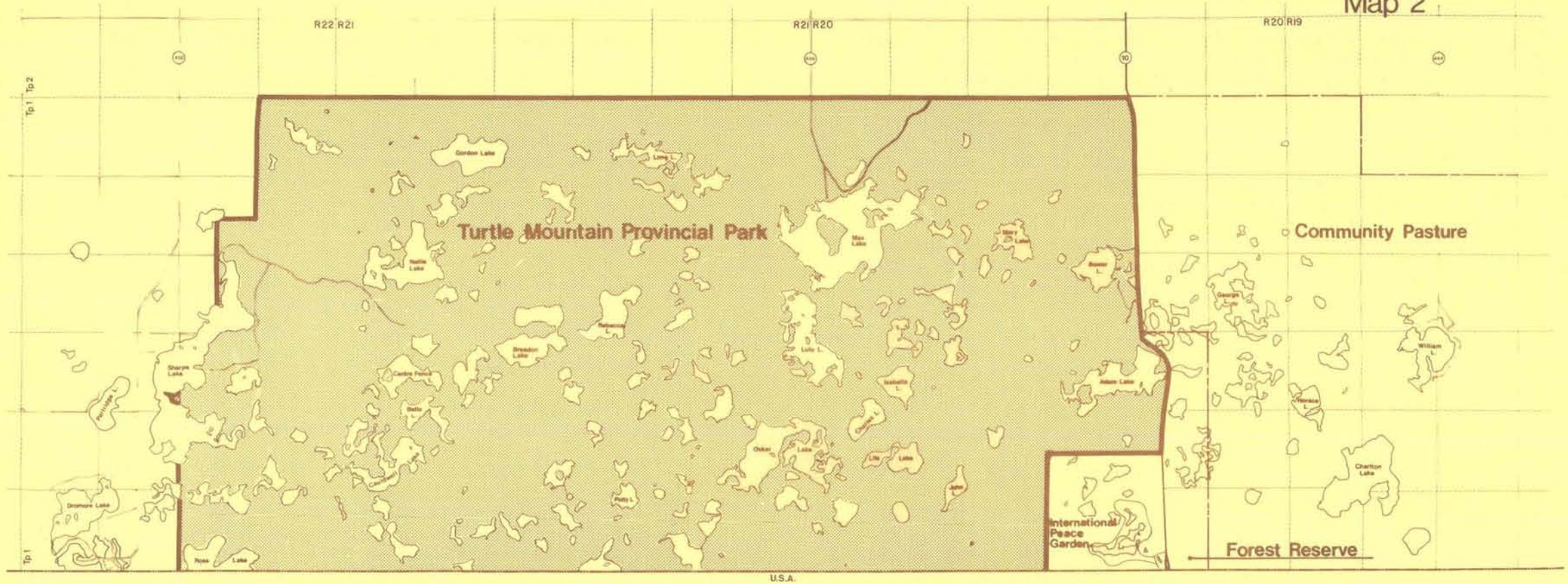
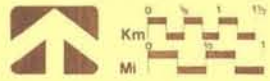
Although agriculture is still the dominant land use activity in the region surrounding the park, mixed farming has been largely replaced by cash cropping and ranching. The region no longer depends upon Turtle Mountain as a source of timber products. The park has now become an important outdoor recreation area, serving both local populations and visitors from other parts of Manitoba and the United States.



Turtle Mountain



Present Land Designations
Map 2



2.1 Natural Resources

LANDFORM

Turtle Mountain Provincial Park is part of the Turtle Mountain upland, an oval-shaped feature which rises 800 to 1,000 feet above the surrounding plain. This upland was formed by the melting of the glaciers at the end of the Ice Age about 14,000 years ago when a mantle of glacial till was deposited over the underlying bedrock. Deposition occurred when the glacier began its final retreat and material at its front edge was left standing in a pile of ice and debris. As the buried chunks of ice melted, they caused considerable shifting and collapse of the land above them. This irregular melting has resulted in the present hummocky terrain of the park. The underlying bedrock consists of sandstone, shale, and some deposits of lignite coal, most of which are deeply buried under glacial materials deposited as terminal moraine.

Loam and clay loam soils are the most abundant throughout the park. The majority of these soils are imperfectly-to-well drained and are high in nutrients. The soil makeup directly affects the plant, fish and wildlife productivity of the area.

WATER AND FISH

The surface of Turtle Mountain Provincial Park is dotted with numerous shallow lakes and swampy depressions. Internal drainage between water bodies is intermittent and poorly defined. Surface run-off from the upland to the surrounding plains is minimal.

Several of the park lakes are regionally important recreation water bodies. Unfortunately, most of them are in an advanced state of natural eutrophication (high nutrient production, high organic content).

High nutrient levels in the lakes can cause severe algal blooms during the summer which limits recreation use. In addition, the shallowness of many of the lakes (less than 15 feet in depth) results in frequent winter kill of fish due to oxygen depletion (Map 3). Unless water or oxygen levels can be increased in these lakes, or nutrient and organic content reduced, these conditions will continue.

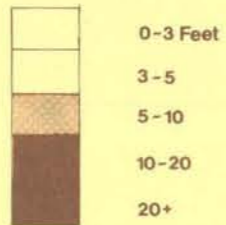
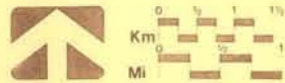
William Lake, located outside of the park, does not winter kill due to its greater depth (23 feet). Sport fish species found in William Lake include native wall-eye and non-native (stocked) rainbow and brown trout.

Max Lake has the least frequent occurrence of winter kill of lakes within the park. A winter kill in 1981 reduced fish populations, but annual stocking is expected to improve angler success in future years. Current fish species found in Max Lake include pike and perch.

In spite of these limitations, the lakes of Turtle Mountain offer an important water-based recreation resource for residents of southwestern Manitoba.

VEGETATION

The Turtle Mountain upland is the best example of pure climax deciduous forest in Manitoba. Trembling aspen is the predominant species in the park forests. For the most part, aspen stands consist of 55+ year old (mature) trees. Scattered stands of oak, birch, ash, and Manitoba maple are also found within the extensive aspen community. In recent years, there has been a high demand for birch as fuelwood, giving rise to concern that birch stands within the park not be overharvested. Coniferous species in the park are restricted to small isolated pockets of white spruce,



Depth & Winterkill
of Major Lakes:

depth
in feet

winterkill

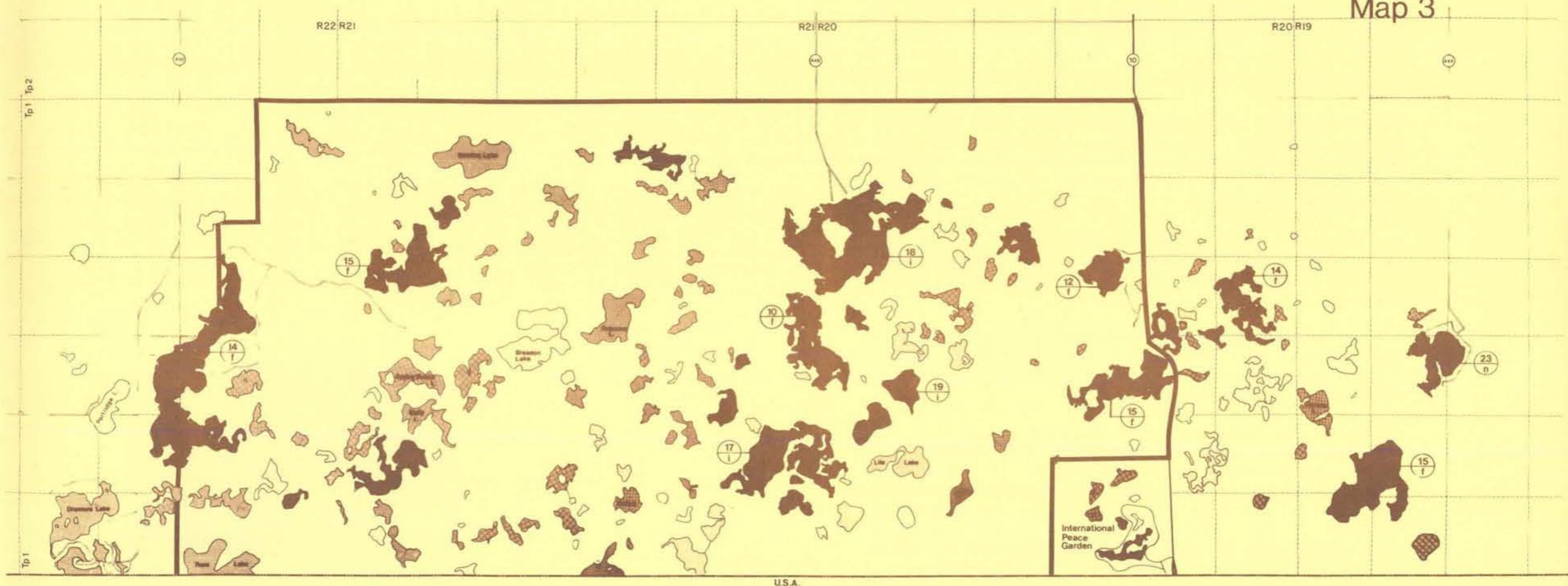
f - frequent
i - infrequent
n - little or none



Turtle Mountain



Lake Depths Map 3



plantations which were established as part of an experimental timber management program.

Trembling aspen is the dominant species throughout much of the park, with bur oak and ash site-specific to dry soils and to southern exposures. Much of the forest understory is composed of heavy stands of hazel. Wetland meadows are common within depressions. Along the edges of most water bodies, thick littoral zones of cattails and sedges create heavily vegetated shorelines.

WILDLIFE

Turtle Mountain is an important wildlife area in southwestern Manitoba. The park has the highest density of painted turtles in the Provincial Park System. Another interesting species is the Thatching Ant which inhabits the spruce plantations.

A variety of small mammals, particularly woodchuck, beaver, and muskrat can be seen in the area, but some species, such as the otter, are no longer found in the park.

Turtle Mountain has been recognized for many years as good habitat for white-tailed deer. Several habitat improvement plots have been created near Gordon Lake to maintain or expand the park's herd.

Sightings and track evidence indicates the presence of moose and elk, both of which have only recently reintroduced themselves into the upland. It is estimated that as many as 60 moose may now live in the area from Wakopa to P.T.H. 21. These ungulates are an exciting addition to the park wildlife population, however, little information is available concerning the movement or population status of moose and elk at present.

The abundance and diversity of songbirds, upland game, birds of prey, colonial nesters, and waterfowl enables avid birders as well as the general public to enjoy the birdlife in the park.



2.2 Present Recreational Use and Development

The low water quality and shallow nature of most lakes in the upland limits traditional water-based summer recreation primarily to Max and Adam Lakes. Boating, waterskiing, sailing, canoeing, swimming, fishing, and camping are all common recreational pursuits at Max Lake. Recreation activities at Adam Lake include swimming, canoeing, sailing and camping. Day use facilities such as picnic, beach and play areas are provided at both Max Lake and Adam Lake, and fall waterfowl hunting for lesser scaup (bluebills) and mallards on both these lakes is a longstanding tradition. Outside the park, William Lake Provincial Recreation Park caters to many transient recreationists by providing a campground, day use area, beach and fishing opportunities.

Recreation continues year-round in Turtle Mountain. Three snowmobile staging areas and many kilometers of groomed trails complement the winter activity centre at Adam Lake, where a heated warm-up shelter serves cross-country skiing trails, a toboggan run and an area of the lake which is cleared for skating throughout the winter months (Map 4).

CAMPING

Vehicle attendance figures for a ten year period commencing in 1974 indicate that park use has increased steadily at both Adam Lake and Max Lake (Table I). Fluctuations in annual use occurred from 1974 to 1983, but the most recent trends reveal park use increasing.

Campgrounds providing both seasonal and transient sites are located at Max Lake and Adam Lake. The majority of current users are from Manitoba. Although statistics are not available for Max Lake, information for Adam

Lake indicates that, for the past few years, Manitoba campers have comprised 67% to 75% of all camper parties. United States visitors account for 11% to 16% of all camper parties. Adam Lake transient campground had an average weekend occupancy rate of 32.1% in August of 1983 and an overall occupancy rate of 23.9% for May to September of 1983. These figures compare favourably with the 1983 overall provincial weekend occupancy rate for August of 50.7% and a May to September rate of 32.1%.

YEAR	ADAM LAKE	MAX LAKE
	VEHICLE ATTENDANCE	VEHICLE ATTENDANCE
1974	12,731	2,758
1975	15,075	2,721
1976	13,725	2,088
1977	15,134	1,978
1978	16,336	1,735
1979	15,350	2,436
1980	13,600	2,242
1981	16,493	3,987
1982	11,912	3,178
1983	18,303	3,871

TABLE I

Since the 1982 camping season, 24 seasonal campsites have been opened at Adam Lake. It appears that current camping demand for Turtle Mountain is now being adequately met.

Group camping sites and facilities are located at Sharpe Lake and Max Lake. The Sharpe Lake site is a Boy Scout Camp with permanent sleeping quarters and a

kitchen facility. A permanent church camp (Camp Koinonia) is located at Max Lake.

An informal group use area is provided at Adam Lake. An area near this site is being used for a horseback riding concession.

COTTAGES

Cottage lots have been developed on two lakes within the park: at Max Lake with 21 lots on Arbor Island, and at Bower Lake with 11 cottage sites. Eight permanent recreational vehicle sites have also been provided at Bower Lake. In 1981, an additional 50 lakefront cottage lots were developed at George Lake in the P.F.R.A. Community Pasture.

TRAILS

Most of the existing trails (Map 4) in Turtle Mountain Provincial Park are of an informal nature. Only the Adam Lake cross-country skiing trail and snowmobile trails in the west end of the park are signed, groomed, and provided with facilities such as warming huts and pit privies. The rest of the trails presently used for hiking, horseback riding, hunting, or canoeing access are mainly abandoned logging trails and fire guard trails.

HUNTING AND FISHING

White-tailed deer and both waterfowl and upland game bird hunting are popular autumn activities in the park outside of built-up recreation areas. The lakes of the Turtle Mountain are major fall staging areas for dabbling and diving ducks, particularly lesser scaup (bluebills) and mallards. Access to hunting areas is provided by the numerous trails and abandoned logging

roads in the park. The fishing opportunity provided by the lakes of the Turtle Mountain upland, particularly William Lake, is also of regional significance and draws many visitors to the region.

WINTER RECREATION

Several winter recreation areas have been established in Turtle Mountain over the past few years. Snowmobile staging areas at Max Lake and at the northern boundary of the park provide a handy jump-off point for the extensive snowmobile trail and warming hut network in the park. A warming hut is also provided on the cross-country ski trail network, whose starting point at Adam Lake is combined with a tobogganing and skating area.

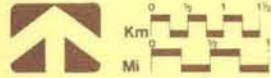
INTERNATIONAL PEACE GARDEN

The International Peace Garden has a range of high-quality day use facilities which complement the beach and camping opportunities in Turtle Mountain. Subsidized in part through an annual grant from Manitoba, this international attraction has considerable potential for the distribution of information regarding the Manitoba Park System in general and facilities in Turtle Mountain in particular.

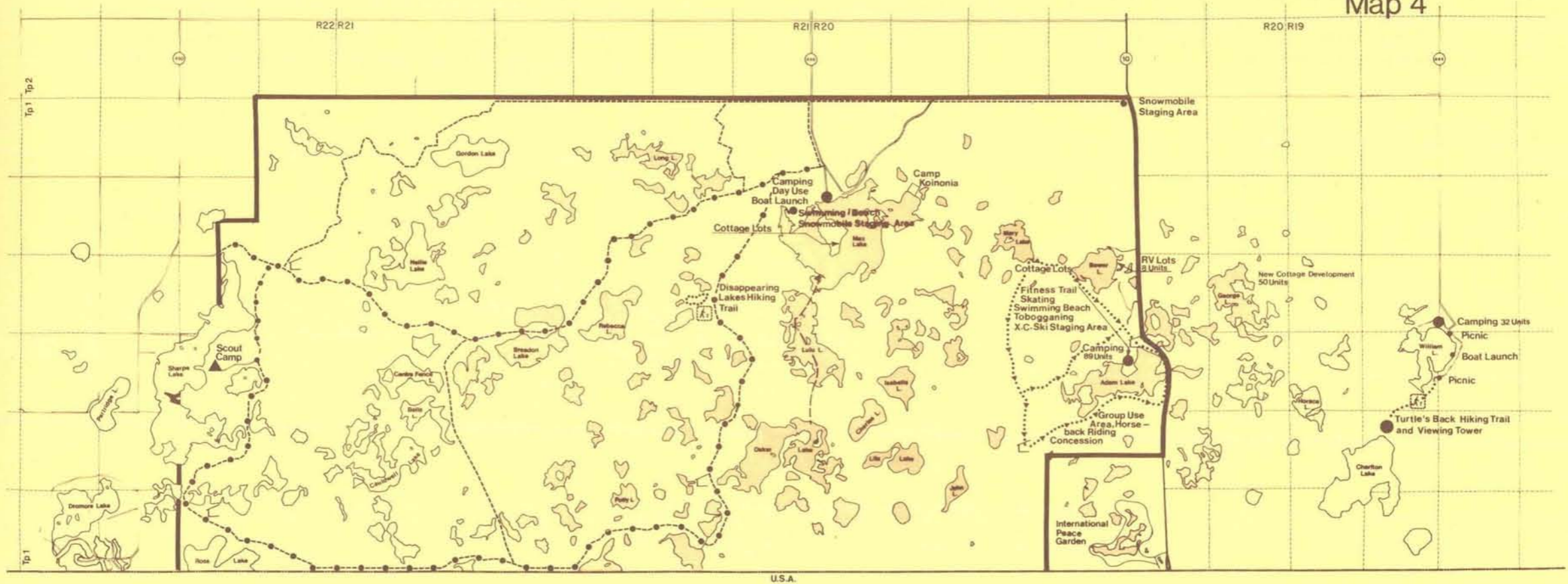
Turtle Mountain



Present Recreational Use Map 4



- Summer Road/Snowmobile Trail
- Snowmobile Trails
- Canoe Route
- Interpretive Trail
- Cross Country Ski Trails / Horseback Riding Trails
- Winter Trail Warming Hut



U.S.A.

2.3 Commercial Resource Use

At the present time, commercial resource use activity within Turtle Mountain Provincial Park is of a relatively small scale.

Trapping, timber harvesting, and oil and gas extraction are the three commercial resource activities in the park. Beaver and muskrat are the primary species trapped outside of existing built-up recreation areas. Timber harvest in the park currently yields some 300 to 1,100 cubic metres of wood per year, mainly for fence posts and firewood.

Increased exploration for oil and gas in the Turtle Mountain region may result in an increase in current production levels. Twenty-seven wells have been drilled in the park. Of these, seven wells are currently active. During 1983, these wells produced approximately 1,700 cubic metres of crude oil. Recently, new leases have been granted for oil and gas exploration under controlled conditions within the northern half of the park. Map 5 shows all lands leased or reserved for oil and gas production or exploration in Turtle Mountain Provincial Park as of February 1985.

Turtle Mountain



Resource Extraction Map 5



Registered Trap Line



Oil Lease/
Land Reservation



Timber Harvesting
(Lumber or Fuel
Wood Cutting)



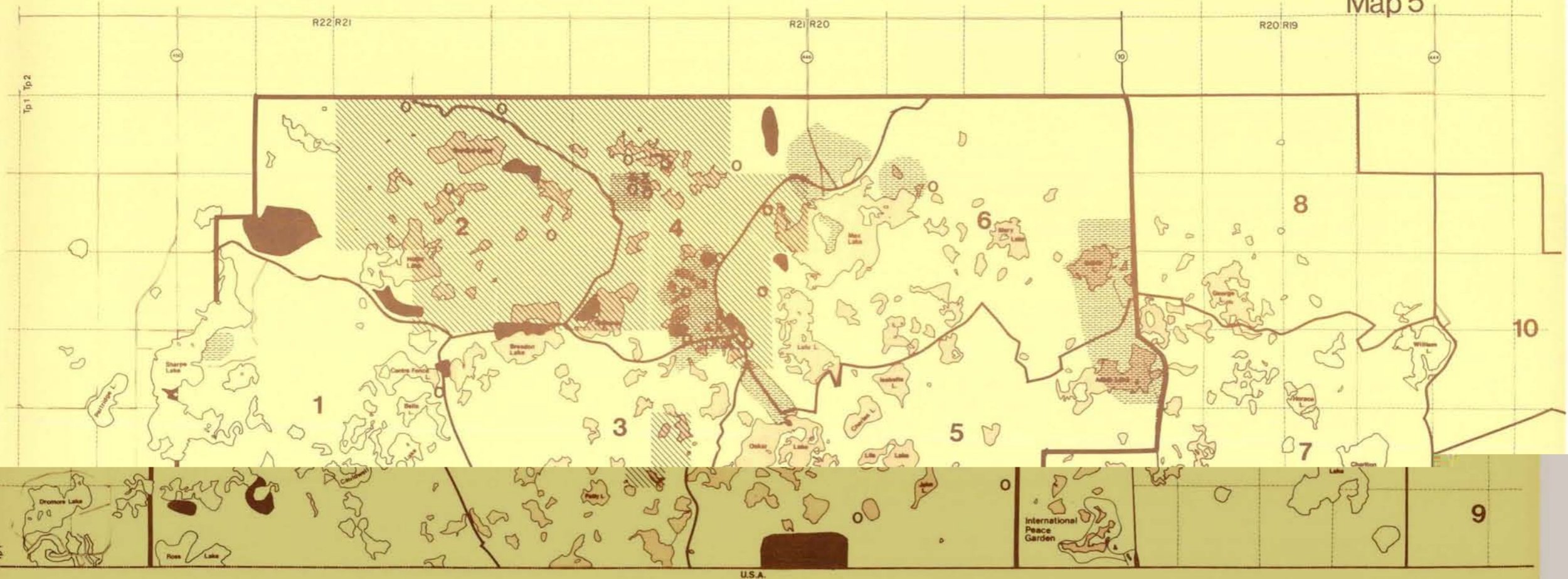
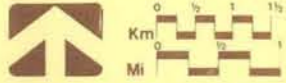
Built Up Areas



Producing Well



Other Well





2.4 Recreation Capability and Significant Features

The following summary of park recreation capability and significant resource features identifies both potentials and limitations for recreational use and sites which require careful management and protection.

RECREATION CAPABILITY

The capability of the park to support recreation development has been assessed by the Canada Land Inventory program. The park has considerable outdoor recreation capability for a variety of activities including camping, hiking and wildlife viewing (Map 6). Of particular note is the relatively high rating (Class 4 - moderate recreation capability rating) given to the woodland areas. This potential for non-water based outdoor recreation remains largely undeveloped. For instance, the varied landforms and vegetation communities within the southern half of the park have a potential for increased summer and winter uses, including hiking and cross-country skiing. The potential for increased levels of backcountry camping, wildlife viewing and photography is also high.

The backshores of eight lakes have been identified as having moderate to moderately high outdoor recreation capability (Map 6). Since most of these lakes, however, are extremely shallow and weed infested, their overall outdoor recreation capability is substantially reduced. For example, algal blooms often occur in Adam Lake and Bower Lake and fish winter kills frequently occur in Bower, Charleton, Nellie, Sharpe, Adam, and Lulu Lakes. Leeches and swimmer's itch detract from the recreational experience in Bower Lake and Adam Lake.

Powerboating and canoeing on lakes is hindered by excessive weed growth. Although Max Lake has the highest water-based recreation capability, it, too, experiences periodic weed growth problems.

Sport fishing is limited by weed growth and low oxygen levels. All park lakes experience winter fish kill, although some lakes, such as Max Lake, Oskar Lake, and Isabella Lake are affected less frequently than others. To date, Max Lake has been the prime sport fishing water body, but in 1981 the fishing in this lake, too, was eliminated through winter kill. Some additional sport fishing capability may exist at Oskar and Nellie Lakes, but the fishery potential presently appears marginal at best at these two sites.

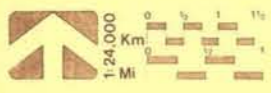
Turtle Mountain



Outdoor Recreation Capability Map 6

- CLASS 3
Moderately High
- CLASS 4
Moderate
- CLASS 5
Moderately Low

- A Angling
- B Beach
- C Canoeing
- H Historic Site
- K Camping
- L Interesting Landform
- M Small Water Body / Stream
- N Lodging Suitability
- O Wildlife
- P Cultural Landscape Patterns
- Q Hiking / Nature Study
- S Ski
- V View
- W Wetland Wildlife
- Y Boating





SIGNIFICANT FEATURES

The Turtle Mountain upland is an excellent example of a glacially modified landform. It is the largest remaining naturally deciduous forest area within southwestern Manitoba. The two areas of the upland containing the most diverse range of landforms and vegetation are located in the southwest and south-central portions of the park (Map 7).

A number of unusual plants, including spotted coral root and calypso orchids, are part of a third important floral community around Mary Lake, in the northeast corner of the park.

Significant park wildlife values include concentrations of painted turtles, as well as numerous nesting sites for loons, great blue herons, and a large number of red-necked grebes. Recent evidence of moose and elk in the park further underlines the importance of this area as an "oasis" for wildlife. The park's value as one of the last relatively undisturbed habitats for wildlife in southwestern Manitoba is becoming increasingly important.

Two cultural features of note within the park are the Dunseith Trail and Oskar Lake archaeological site. The Dunseith Trail, named for a nearby community, was used as early as the 1800's and was the first route across Turtle Mountain. The archaeological site at Oskar Lake provides documented evidence of use of the Turtle Mountain area by native hunters, probably Cree, over 400 years ago.

A nearby site southwest of William Lake shows signs of being used between eight and eleven thousand years ago by Paleo Indians hunting huge prehistoric bison, or perhaps even mammoths.

For the most part, however, cultural features have not been widely documented within Turtle Mountain Provincial Park. As a result, natural features dominate the significant features map.

Turtle Mountain



Significant Features Composite Map 7

Significant Feature:



Wildlife



Vegetation



Landform

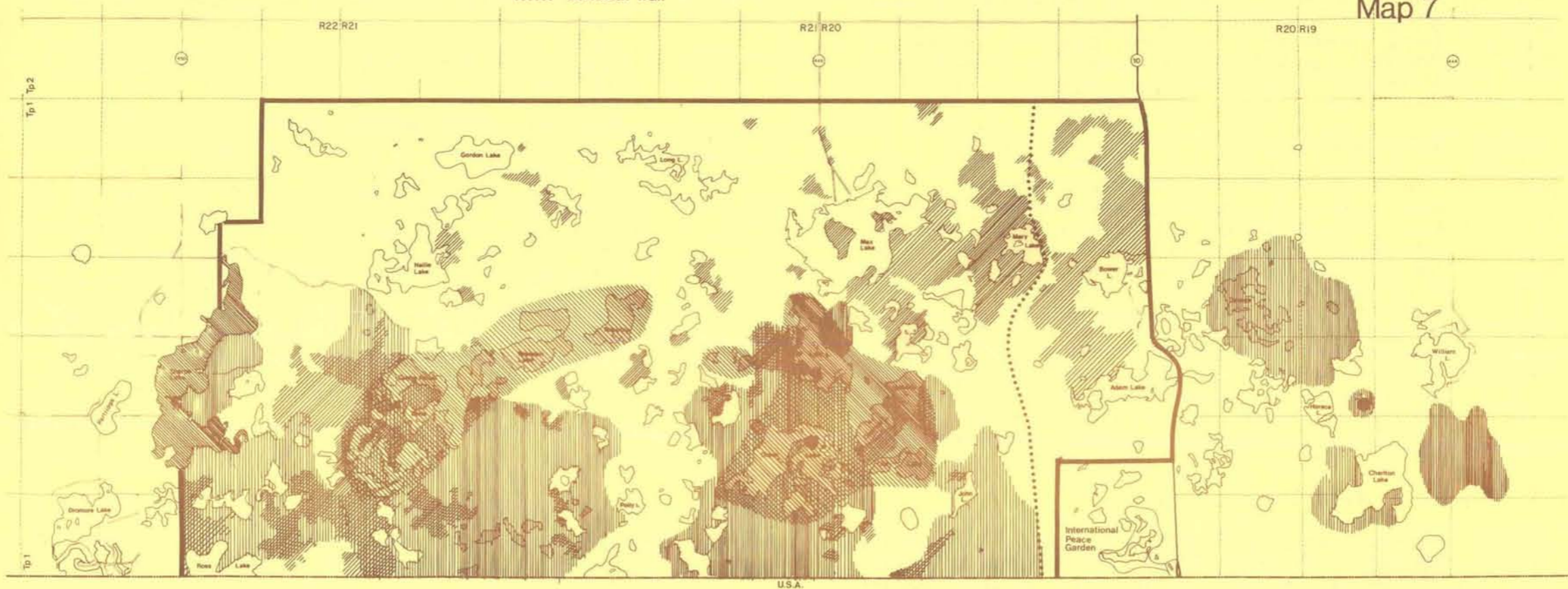
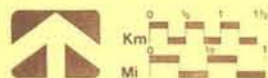
Known Archaeological Sites



Sites



Dunseith Trail



3. ZONING

Zoning is a means of identifying areas of the park which have different uses and management objectives. Each zone is intended to achieve a specific purpose. Zoning provides park managers with a framework for decision-making and gives the public a better understanding of the types of uses and degrees of development to be undertaken in different areas of the park.

The zoning for Turtle Mountain Provincial Park consists of four (4) categories: Special Areas; a Backcountry Zone; Recreation Zones; and Commercial Resource-Recreation Zones (Map 8). Management, development, and conservation programs for each zone are based upon their specific resource characteristics.

3.1 Special Areas

A Special Area sets aside significant natural or cultural features for purposes of preservation and protection. This designation is intended to ensure that the integrity of significant features is maintained. The sizes of, and permitted uses in any particular Special Areas are directly related to this intent. Resource extraction, including oil and gas exploration, will not be permitted in a Special Area. Recreation development will generally not be allowed, although limited interpretation facilities such as trails may be considered as long as such development would not be detrimental to the resource feature. Hunting and trapping are not permitted unless otherwise specified. Three such parcels are identified in Turtle Mountain Provincial Park.

3.1.1 Mary Lake Special Area

Although orchids grow in several locations throughout the park, the largest known concentration of these delicate and beautiful plants occurs at Mary Lake.

Species found here include calypso orchid, small round-leafed orchid, striped and spotted coral root, and the yellow lady slipper. Hunting and trapping are permitted uses in the Mary Lake Special Area only.

3.1.2 Eagle Island Special Area

Undisturbed by man or fire for more than 100 years, Max Lake's Eagle Island preserves an outstanding example of a site-specific climax vegetation community of the upland. This occurrence of oak/elm forest cover is unique, as the remainder of the entire Turtle Mountain upland has been burned in previous forest fires.

3.1.3 Red-necked Grebe Special Area

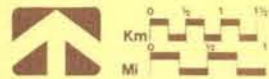
Centred on two small unnamed lakes in the heart of the park, this Special Area is an important nesting area for red-necked grebes. In addition to supporting the largest known concentration of these birds in the Turtle Mountain upland, the lakes are also home to the common loon, an increasingly uncommon species.

Other significant resources may be identified in the future. Thus, it will be necessary to continuously update designations of Special Areas.

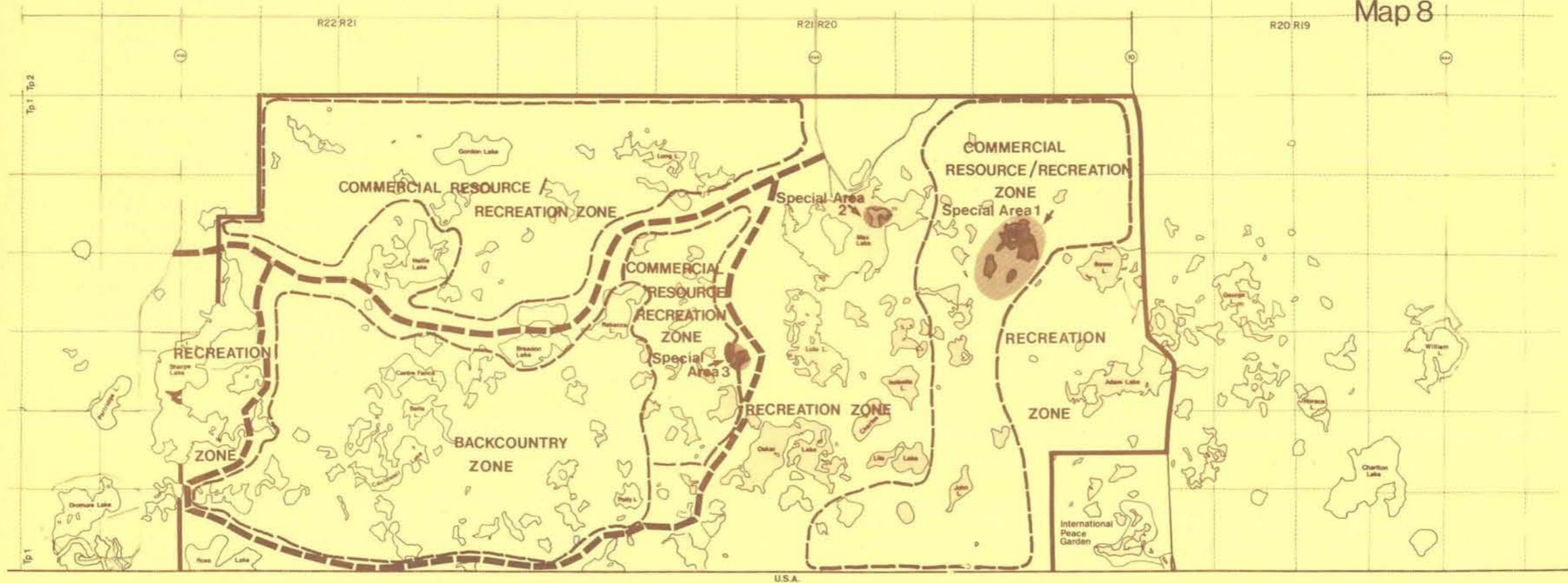
Turtle Mountain



Land Use Zones
Map 8



- Summer Road
- Zone Boundary



3.2 Backcountry Zone

The primary purpose of the Backcountry Zone is to identify and protect the portion of the park which best represents the Turtle Mountain Natural Region and the significant natural values associated with it. The Backcountry Zone is characterized by recreation facilities and activities compatible with preserving these important landscape features.

The Backcountry Zone in Turtle Mountain is located in the southwestern portion of the park. It encompasses approximately 3,600 hectares or 20% of the park. Recreation activities compatible with the zone include canoeing, hiking, cross-country skiing, horseback riding, and primitive camping. Walk-in sport hunting and fishing are also permitted. The existing Bella Lake snowmobile trail will be maintained, but no other summer or winter motorized access routes will be established within the zone. Motorized access via snowmobile to the existing registered trapline system will be permitted, but timber harvest must occur elsewhere in the park. Within this zone oil and gas exploration and development will generally not be permitted (see Sec. 4.3.3).

3.3 Recreation Zone

Intensive recreation activities, such as picnicking, cottaging, organized camping, and group camping will occur in Recreation Zones. The Recreation Zones will accommodate a variety of recreation activities and facilities within Turtle Mountain Provincial Park.

The scale of any development within the Recreation Zones will generally be limited by lake size, water quality, and the capability of the land base to support use.

Future recreational development will continue to use a "nodal" or clustered design to ensure the extent of development is controlled and that the natural character of the park is retained.

The analysis of the park's resource base shows that additional potential for recreation opportunities like those offered presently at Max and Adam Lakes exist in the Oskar/Lulu Lake area. These lakes have been included within the Recreation Zone. If future demand warrants provision of additional intensive recreation activities, they will be provided in this area of the park.

Provision of designated trails and areas for motorized recreation, such as snowmobiling and driving for pleasure, will be made in the Recreation Zones.

Sport hunting is permitted in the Recreation Zones, except within built-up areas. Although commercial timber harvesting will not be encouraged within these zones, selective timber harvesting for fuelwood purposes may be permitted, both as a recreation experience and a wildlife habitat management technique. Trapping will be permitted outside of built-up areas. Oil and gas exploration and development will also be permitted outside of built-up areas.

Such operations will be subject to specific terms and conditions established through a Parks Branch permit process.

Recreation Zones have been established at Adam Lake, Max Lake and Sharpe Lake. A Recreation Zone corridor encompassing the summer recreation road connects Max Lake to Sharpe Lake. The Recreation Zones total 6,800 hectares (17,000 acres) or 38% of the park.

3.4 Commercial Resource/Recreation Zone

The Commercial Resource/Recreation Zones accommodate a variety of outdoor recreation activities and may sustain a managed program of commercial resource extraction. Commercial resource extraction will be conditional upon the retention and protection of park values. Commercial timber harvesting, oil and gas exploration and development and trapping are permitted within this zone.

Outdoor recreation activities encouraged in this zone include snowmobiling, sport hunting by permitting mechanized access along designated trails, hiking, and horseback riding. Intensive recreation activities such as camping and cottaging will not be provided in this zone.

Approximately 7,200 hectares or 42% of the park has been set aside as Commercial Resource/Recreation Zones.



4. PARK DEVELOPMENT AND MANAGEMENT

This section outlines the park programs for natural and cultural resource management, recreation facilities and services, park operations and commercial resource use. It also provides a listing of priorities for program implementation.

4.1 Natural and Cultural Resource Management

Resource management focuses upon the dominant natural and cultural features and values of the park. As cultural resource information is not extensive at this time, management statements in the plan are limited.

4.1.1 Natural Resource Management

The Natural Resources Management Program addresses four major components: water, fish, vegetation, and wildlife. Although many activities in this program will be undertaken by other branches and government departments, overall responsibility and control will be provided through the Director of Parks by means of a work permit similar to that outlined in Sec. 4.3. Parks Branch has the ultimate responsibility for issuing permits within park lands and will cooperate with other branches to ensure that program requirements are fulfilled consistent with park objectives.

a. Water

Water management programs can only marginally improve water quality problems in most lakes. Even so, some procedures may help alleviate excessive aquatic weeds and low winter oxygen levels, conditions which create the most problems for recreational use.

A number of methods, including lake aeration, aquatic weed control, winter snow removal, headwater storage, and groundwater wells were considered for use in the improvement of water quality of the park lakes. Many of these techniques were found to be impractical for Turtle Mountain. Since the water quality problems for most lakes relate to excessive aquatic weed production, one solution may be the acquisition of an aquatic weed harvester. A harvester would be used to remove excessive weeds in the summer and also reduce fish killing oxygen depletion which occurs when the weeds rot under the ice in winter. The feasibility of acquiring an aquatic weed harvester for use in Turtle Mountain and water bodies outside the park will be investigated.

Lake aeration techniques have improved greatly in the past several years and a program to re-evaluate the effectiveness of this procedure began in the winter of 1984 at Bower Lake.

Overall, it would appear that only a limited increase in water quality of lakes in Turtle Mountain Provincial Park is possible in the immediate future.

b. Fish

During the ten year term of this management plan, sport fish management programs will be concentrated on those lakes with the highest potential for sport fishing. The targets of this program will be Max, Oskar, Bower, and Nellie Lakes.

Stocking, monitoring, and weed harvesting (if feasible) are the methods which will be used to enhance sport fishing opportunities. Max Lake will continue to re-

ceive the majority of the sport fish management effort and will be intensively managed to maintain overwintering sport fish stock. Pike will continue to be the main stocked fish at Max Lake. Nellie Lake will be investigated further to more precisely determine sport fish management potential and requirements. Oskar Lake will be further investigated as to its potential to sustain a pike fishery. A survey will be made of small lakes in the park to see which have potential for use as rearing ponds to restock lakes such as William and Max Lakes. Any new recreational development at any of the above lakes will be undertaken in a manner that will not affect their sport fishery potential.

Commercial trout farming and bait fishing operations will not be permitted in Turtle Mountain Provincial Park.

c. Vegetation

Two of the three Special Areas in the park will be designated to protect significant plant communities: at Mary Lake (orchids) and on Eagle Island (climax forest). No further white spruce plantations will be created in the park and existing plantations may be selectively removed as they mature. At Max Lake, the white spruce plantation will be thinned by selective cutting to promote tree growth and create an aesthetically pleasing softwood forest.

The current practice of suppressing wildfires throughout the park will continue due to the need to protect recreational facilities and private property. The experimental introduction of native or exotic species such as wild rice into park lakes for commercial purposes is not permitted.

In the Backcountry Zone natural succession will be allowed to determine the plant and animal communities. Within developed recreation areas, selective cutting and planting of deciduous trees for aesthetic and safety purposes will be encouraged.

Vegetation management by means of timber harvesting will continue in the commercial resource/recreation zone so that a diversity of vegetation types, and therefore wildlife habitats, will be maintained in the park.

Timber operations will follow a sustained yield approach calculated only from the operable areas of those land-use zones where forestry is a permitted use, less buffer and other inoperable areas. Present timber harvest is lower than the calculated maximum allowable, which leaves some room for expansion. A five-year plan for harvesting and regeneration will be prepared and updated annually to guide timber harvesting activities.

d. Wildlife

The diversity of park wildlife creates opportunities for consumptive and non-consumptive recreation uses. Hunting and trapping are long-standing uses of the park and existing consumptive uses of wildlife centre on trapping and the hunting of deer, waterfowl, and upland game. Hunting is considered to be an important recreation opportunity and existing seasons will be retained. The present registered trapline system will also be retained in its existing format.

A no hunting zone will be retained around all built-up areas. These areas are withdrawn from sport hunting for safety and buffer reasons. Because of the small size and accessibility of the Backcountry Zone, all hunting activity will be by non-motorized means.

The park provides excellent opportunities for viewing and photographing ungulates, birds and reptile life. The potential for viewing wildlife will be enhanced through management techniques which will attract certain species to designated viewing spots. An interpretive program will augment the viewing opportunities.

The status of moose and elk will be further investigated, for the next two years, and carrying capacities, habitat requirements and existing and potential populations will be determined. The recreational opportunities these animals could provide to park visitors will be assessed as part of these studies. Local park users and groups would be consulted, and their input sought, on any proposals to initiate sport hunting for these species following the two-year period.

Other proposed wildlife projects include painted turtle and beaver population and distribution studies, as well as a project to raise water levels in selected lakes, thereby improving water quality, waterfowl production and fishing and recreation opportunities. The feasibility of reintroducing otter into the park will be investigated. Involvement of the local fur association will be an important component of this program. Canada geese are now making casual use of the park. The potential to establish a breeding flock here will also be reviewed.

4.1.2 Scientific Research

Scientific research by recognized educational and scientific institutions and accredited individuals will be encouraged where it can be of benefit to science in general and to specific resource management or educational programs in particular. Research projects will be subject to the following stipulations:

1. Removal of specimens and artifacts from the park will be only by permission of the Director of Parks.
2. Upon completion of any studies, a copy of data and reports will be filed with the Director of Parks.
3. Collection of any specimens recognized as endangered species will not be permitted.

4.1.3 Cultural Resources

The significance of the human heritage of Turtle Mountain Provincial Park has been only partially documented. To ensure protection of this resource, proposals for public land development and resource harvest and extraction will be routinely submitted to the Historic Resources Branch for archaeological evaluation. Where necessary, rescue operations will be undertaken prior to site development to recover artifacts. Whenever possible, developmental activities will be monitored to further identify and ensure protection of archaeological resources.

There are two identified cultural resource areas in Turtle Mountain Provincial Park: the Dunseith Trail and the Oskar Lake archaeological site. The Dunseith Trail will be maintained and be available to hikers and horseback riders who are seeking longer trips. The Oskar Lake archaeological site will be left intact until additional archaeological research is undertaken. Additional information on both these features is required before any specific facilities or public information material can be developed.



4.2 Recreation Facilities and Services

The recreation services and facilities program reflects the role of Turtle Mountain in the Park System: to protect and maintain the representative plant and animal communities of a provincially significant and unique landscape and provide a range of recreation activities primarily for residents of southwestern Manitoba.

The program is largely based upon the recognition of the need to maintain and enhance activities which already exist in the park, but includes several new initiatives as well.

Max Lake will continue to be the primary focus for destination visitation. Adam Lake will be the major transient visitor stop. Max Lake's relatively high water quality, its scenic values and existing facilities confirm the need to focus redevelopment and upgrading here. As a result, a conceptual site plan has been prepared for Max Lake (see Max Lake Redevelopment Concept, page 26). Facilities will also be upgraded and walking trails and a visitor centre will be added at Adam Lake. Given the reasonable stability of the demand for outdoor recreation activities in the park, little new development beyond Max Lake and Adam Lake is needed at present. Should recreational demand increase, additional development potential does exist in the Oskar/Lulu Lake area. This potential has been recognized through zoning.

4.2.1 Camping

In 1982, 24 seasonal sites were developed at Adam Lake. Demand for seasonal camping will continue to be monitored and reorganization and expansion of existing campgrounds will take place when additional seasonal sites are required. Transient camping will continue to be provided at both Max Lake and Adam Lake.

A new type of campsite is being developed at Oskar Lake. To be reached either by canoe or by a short walking trail, this site provides a more "remote" family lakeshore camping experience in a high quality natural setting.

Overnight camping in areas of the park other than at designated sites is not permitted. Backcountry users will be required to use designated sites and be responsible for disposal of their garbage.

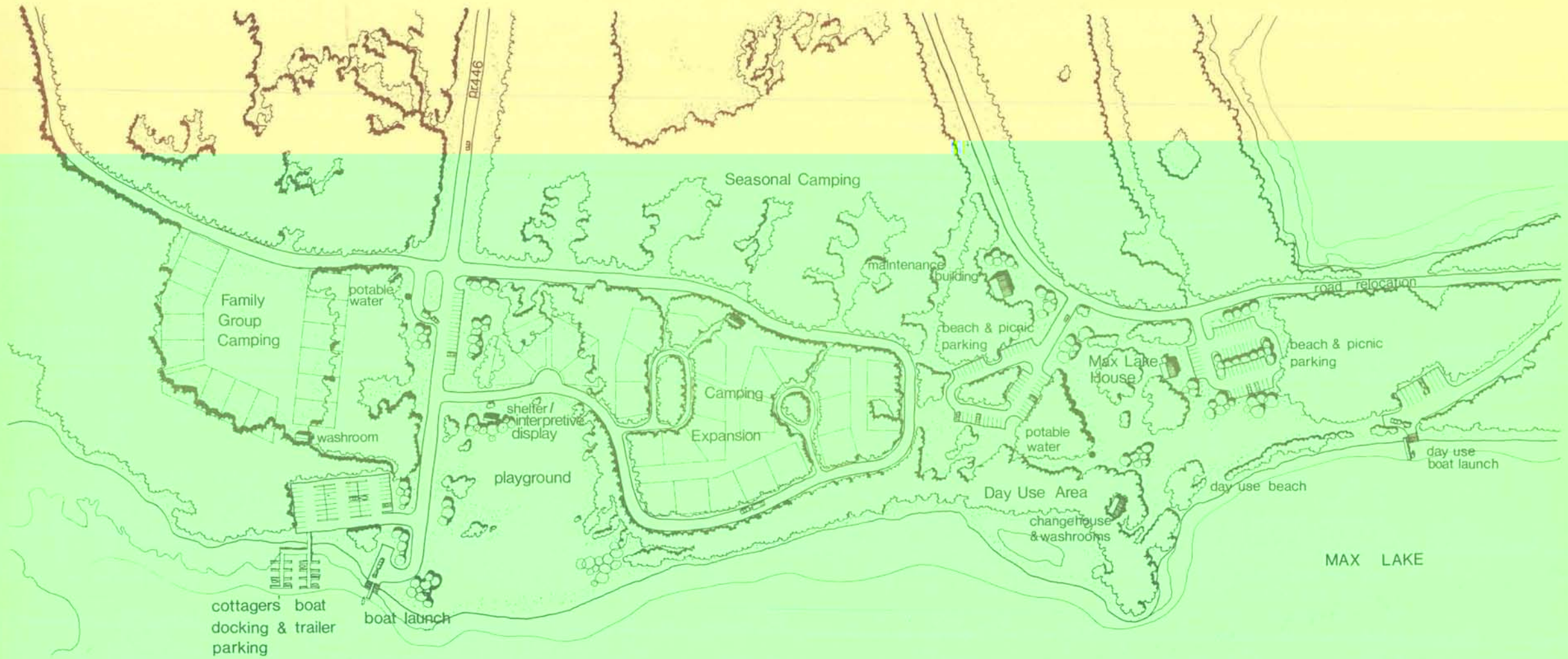
Opportunities for group camps such as the Boy Scouts Camp and Camp Koinonia will continue to be provided for in Turtle Mountain Provincial Park. The Sharpe Lake area has been designated as the location for additional organized group campsites, if required, while transient group use camping expansion will be provided for at Adam Lake.

4.2.2 Day Use

Max Lake is used primarily by residents of the Turtle Mountain region, while day use by transient tourists is concentrated at Adam Lake. Improvements to the existing facilities will continue as required. Additional picnicking facilities at Max Lake will be developed consistent with the development plan.

4.2.3 Cottages

In association with the objective to examine cottaging potential outside the park, future cottage development potential has been identified at Charlton Lake. A more detailed study of Charlton Lake will be made as and when the existing available cottage lots at George Lake are taken up. The existing cottage areas in the park will be maintained and present levels of service will



Max Lake Redevelopment Concept

continue to be provided to these cottage lots. Electrical service to Arbor Island will be permitted.

4.2.4 Commercial Recreation Development

Public opinion regarding a large scale commercial tourist/accommodation facility in the park was mixed. Many park users felt such a development would compromise park values. However, requests from park users for a convenience store/fast food type of operation are common.

Therefore, all major tourist accommodation requirements will continue to be encouraged outside the park in local communities. Parks Branch will actively consider the establishment of a privately operated, small-scale facility (either mobile or booth type) from which basic groceries, food, and confectioneries would be available. The location for such a facility would be in the vicinity of either Max Lake or Adam Lake.

4.2.5 Roads and Trails

In order to retain current levels of road access to park facilities and features, the Max Lake road will be upgraded and fully maintained south to Oskar Lake. At this location a turnaround/parking area will be provided for hikers on the proposed backcountry trails and those park visitors using the new "remote" campsites on Oskar Lake itself. The main east-west road in the park will also be upgraded and maintained. The remainder of the loop road around the Backcountry Zone will be retained in its present condition and be available for summer vehicle use depending upon passability (e.g.: road closed when wet), fire hazard, and the need to maintain the road surface in good condition for use as the winter snowmobile trail base. It is expected that the experience of driving this grassed roadway past the

small lakes and hills of the park will continue to be a popular pastime.

To encourage use of the summer road by park users, an "Ecotour" concept will be developed which will include naming of the road and provision of informational signs along the route at points of interest.

Initial emphasis on upgrading of the park trail system will be placed upon the provision of a short walking trail into the remote campsites at Oskar Lake. A more extensive hiking loop will be provided in the Backcountry Zone. For longer backcountry trail use, the existing unorganized trail system can be used. The Adam Lake park office will provide information on suitable trails, destination areas, and on winter backcountry trails.

Further work on the Adam Lake cross-country ski trail will be done to permit increased summer hiking over the same system, and one of the trails will be used as part of a new horseback riding trail network.

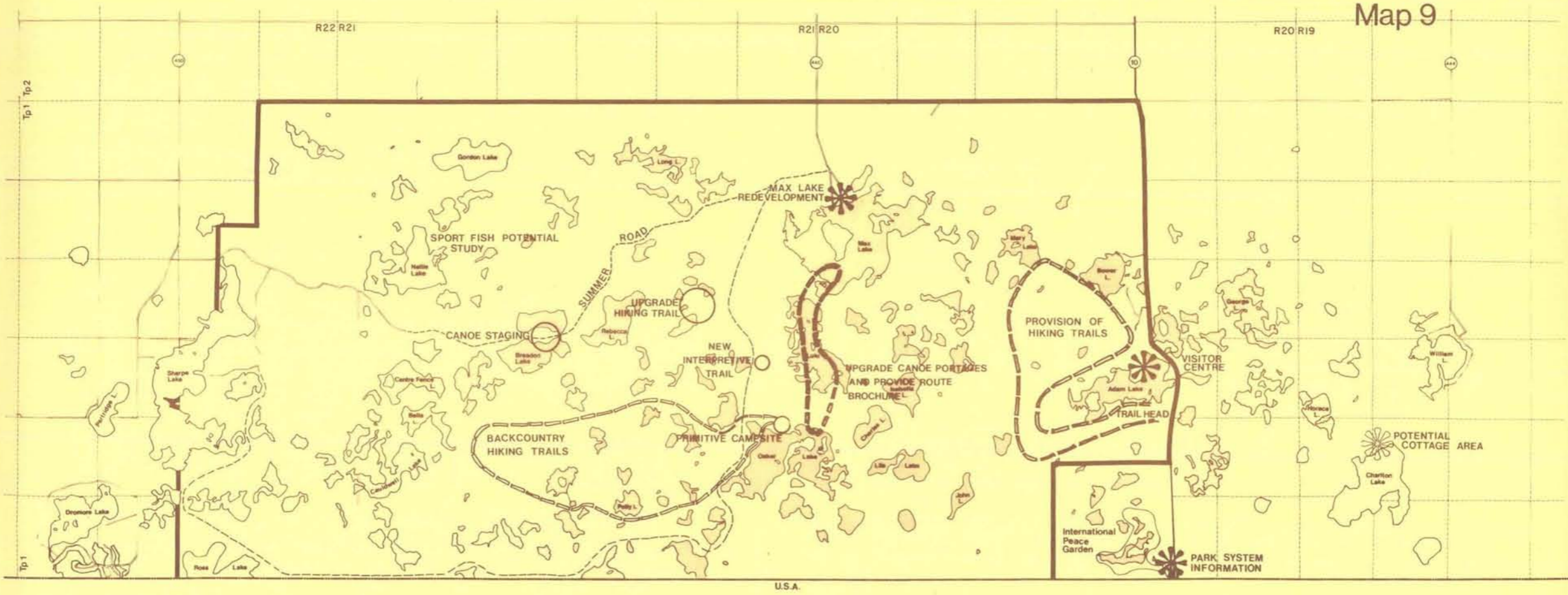
Horseback riding will be encouraged in several ways. Annual permits would be issued for casual riding by local area residents; designated trails will be identified to accommodate group riding events and riders who trailer their horses to the park; and, if interest warrants, additional trails and overnight campsites may be provided.

The snowmobile trail system staging areas and warming hut network will be maintained as a major component of winter park activities, and all-terrain vehicle use of these trails in winter only will continue. The southwest snowmobile trail access to the park will be relocated to avoid private land.



New Recreation Facilities Map 9

Prepared by Hilderman Feir Witty and Associates
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4.2.6 Canoeing and Boating

The existing Max/Oskar Lake canoe route is being upgraded through the clearing and marking of portages and by the development of a primitive campsite on Oskar Lake. Future portage connections to Charles and Isabella Lakes will be evaluated.

A canoe/rowboat launching area will be provided at Breadon Lake. The future expansion of canoeing using Breadon Lake as a jump-off point will be studied, but the weed growth, reedy shorelines, and the distances between lakes reduces the potential for canoe route expansion in the park.

4.2.7 Park and Regional Information

There is presently little public information available for either Turtle Mountain Provincial Park or the Provincial Park System. A definite need exists to improve public awareness of the natural and cultural features and recreation opportunities found in Turtle Mountain Provincial Park and the Park System in general. Methods for expanding this information base include information signing, brochures, interpretive displays, and trails.

a. Information on the Provincial Park System

The position of Turtle Mountain Provincial Park at the International Border provides a unique opportunity to convey tourism information about the Provincial Park System. A display is proposed in association with the Travel Manitoba tourist booth at the International Border, to illustrate the recreational opportunities that exist throughout the Provincial Park System.

Parks Branch will also participate in a cooperative promotional program with the Peace Garden to highlight recreation opportunities and facilities in Turtle Mountain Provincial Park.

b. Park Orientation

Adam Lake will be the primary location for the orientation of visitors to the park because of the lake's accessibility from P.T.H. #10, the level of existing facilities and the high number of transient visitors using these facilities.

An existing building at Adam Lake will be developed as a visitor orientation centre. This building will provide a range of information on the natural and cultural history of the park and region. Facility layout will focus on providing a self-guided storyline for certain themes.

The park office will continue to provide general information about park recreation opportunities and a complete range of park brochures and handouts showing location of facilities. A teacher in-service program will be undertaken to assist teachers planning educational outings to the park.

c. Interpretive Themes for Turtle Mountain Provincial Park

Natural and cultural themes that will be considered for presentation in the interpretive programs for the park include:

- early settlement patterns
- importance of a forested "island" in an agricultural region and early logging

- international boundary story, early trails and colonization roads
- a wildlife oasis
- lake processes
- geological history of the mountain and coal mining
- rare vegetation and wildlife
- history of oil exploration and production

d. Max Lake Interpretive Display

A small open-air display will be developed at Max Lake. This display will discuss the general history of the park, including the old Max Lake logging settlement and the subsequent recreation development. In addition, this facility will provide off-site interpretation of Eagle Island. In the future, this off-site program may be supplemented with a walking trail on the island itself.

e. Interpretive Trails

The existing Dead Lake Trail has been renamed Disappearing Lakes Trail. This trail is to be upgraded and the brochure replaced by on-site signs. An additional interpretive trail and viewing blind will be constructed to allow park visitors to view the red-necked grebe. Upgrading of the Max-Oskar Lake canoe route will include the development of a route map/comprehensive guide which will describe the natural and cultural features of this part of the park.



4.3 Commercial Resource Management

4.3.1 Permit Process

Control over commercial use and harvesting of resources will be achieved through a permitting process. Current commercial resource use activities are acceptable within the Commercial Resource/Recreation Zone. All proponents will be required to submit detailed descriptions of projects and specific operations. Terms and conditions will be applied to all permits issued to ensure that:

- important fish and wildlife habitats and cultural resources are not impaired
- existing or planned patterns of recreational use are not interfered with
- known recreational resources of high capability are not irreparably damaged

Permit terms and conditions will authorize and regulate:

- the location, nature, scale, and methods of the proposed activity, such as timber cutting areas, oil and gas sites, the technologies to be employed, and the support activities required
- development sequence, timing and duration of each activity, e.g.: winter or summer construction, transport schedules, and traffic and equipment movements
- the location of all clearings, structures, and infrastructure, including camps, access roads, and waste disposal areas
- site maintenance and operation conditions and standards
- disposal and treatment of domestic and industrial wastes

- site abandonment, including clean-up operations, removal of buildings, structures, and roads
- site restoration, including grading, revegetation, and monitoring.

The permit terms and conditions will incorporate the minimum requirements of all relevant Provincial Acts and Regulations, the Manitoba Stream Crossing Guidelines, the Southern Region Forest Operations Management Good Housekeeping Manual, and other applicable documents. Park permits, however, may involve higher standards and increased restrictions than other guidelines wherever necessary to protect the resources of Turtle Mountain Provincial Park.

4.3.2 Timber Harvesting

A five-year plan for harvesting and regeneration, including provisions for 150 meter minimum shoreline and trail buffers, will be prepared by Forestry Branch and updated annually. Whenever possible, Forestry operations will be scheduled in the recreation off-season (October to April). This plan will take into account demands by both private and commercial concerns for fuelwood and commercial timber, as well as the need to upgrade wildlife habitat and maintain park recreation and natural values. Harvest areas and methods identified for the appropriate park zones in the five-year plan will be reviewed and approved by Parks Branch in consultation with Wildlife Management personnel.

4.3.3 Oil and Gas

The exploration and possible extraction of oil and gas may have several impacts upon park values. The initial

on-site exploration program requires both the clearing of seismic lines and the subsequent testing of deep deposits, resulting in visual, audio, access and resource base alteration impacts. Any subsequent extraction has similar long-term impacts.

Any such development will, therefore, be confined to the Commercial Resource/Recreation Zones and the Recreation Zones of the park. Should an urgent "need to know" situation arise with respect to the Backcountry Zone, and all options and alternatives for exploration and development in the above two zones have been exhausted, the position on exploration in the Backcountry Zone will be reviewed. In this event, exploration rights only, would be granted, and exploration activities would have to be conducted on foot.

The following guidelines will reduce short-term and long-term impacts from exploration and extraction:

- no exploration camps will be permitted in the park.
- seismic line cutting will be reviewed by Parks Branch prior to commencement to reduce conflicts with existing or proposed recreation development. Any line cutting will occur in the off season.
- all access roads will be reviewed with Parks Branch prior to development. Where feasible, existing trails will be used for access.
- oil and gas extraction and access roads will not be sited closer than 150 meters to lake shorelines.
- garbage disposal will be permitted only in designated sites.
- the proponent will submit a development plan and a performance standard to be met throughout the life of the well as a prerequisite to development work. This performance standard will set out specific operation objectives (e.g. size of clearing, dikes, site maintenance, reseeding) which can be evaluated at any time to determine status of environmental impact.

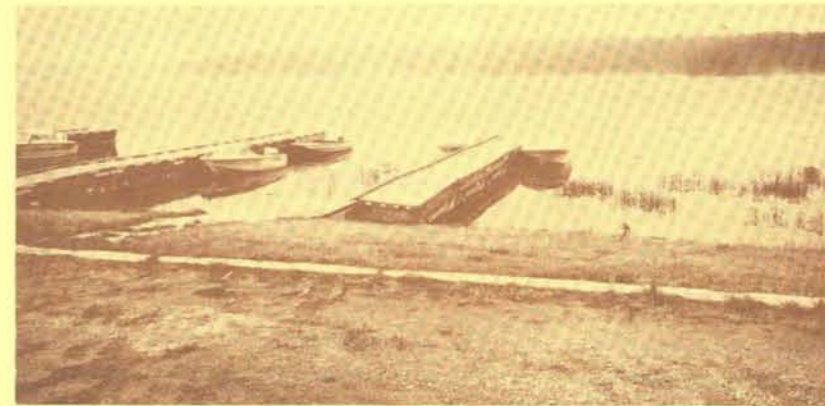
The onus will rest with the proponent to indicate that environmental impact will be minimized. An environmental impact assessment may be required in sensitive areas or drill sites near park lakes.

4.3.4 Hay Cutting

The opportunity to harvest hay in the park, when emergency regional situations are identified by the Provincial Agricultural Representative, will be retained.

4.4 Implementation

A listing of priorities and programs for development and management of the recreation and natural resources within Turtle Mountain Provincial Natural Park is provided on the following page. This listing outlines the actions required to put the theory of the plan into practice. Upgrading of the Disappearing (Dead) Lakes Trail, noted in the draft management plan, has been completed and removed from the list.



PRIORITY 1

1- CAPITAL DEVELOPMENT AND REDEVELOPMENT

- A) UPGRADE ADAM LAKE FACILITIES
- B) DEVELOP OSKAR LAKE ACCESS TRAIL AND REMOTE LAKESHORE CAMPSITES
- C) UPGRADE OSKAR-MAX LAKE CANOE ROUTE

2- PUBLIC INFORMATION/INTERPRETATION

- A) DEVELOP INTERNATIONAL BORDER INFORMATION DISPLAY
- B) PARTICIPATE IN PROMOTIONAL PROGRAM WITH PEACE GARDEN
- C) DEVELOP VISITOR ORIENTATION BUILDING COMPLETE WITH INFORMATION/DISPLAY AT ADAM LAKE

3- RESOURCE MANAGEMENT

- A) COMPLETE MAX LAKE WATER QUALITY STUDY
- B) BEGIN MOOSE AND ELK POPULATION HABITAT AND BEHAVIOR STUDIES
- C) COMPLETE FIVE YEAR TIMBER CUTTING PLAN
- D) BEGIN A LAKE AERATION PROGRAM WITH A PILOT PROJECT AT BOWER LAKE

PRIORITY 2

- A) DEVELOP BACKCOUNTRY HIKING TRAIL COMPLETE WITH DESIGNATED CAMPSITES
- B) CONTINUE MAX LAKE REDEVELOPMENT AS PER PLAN IN ACCORDANCE WITH DEMAND
- C) ESTABLISH HORSEBACK TRAILS/AREAS

- A) DEVELOP MAX LAKE/EAGLE ISLAND DISPLAYS
- B) DEVELOP CANOE BROCHURE FOR MAX-OSKAR LAKE CANOE ROUTE
- C) INVESTIGATE FEASIBILITY OF COMMERCIAL CONCESSION DEVELOPMENT

- A) COMPLETE FISHERIES STUDY OF HABITAT AND HABITAT IMPROVEMENT POTENTIAL FOR PARK LAKES
- B) INITIATE POPULATION DISTRIBUTION STUDIES FOR UNGULATES, PAINTED TURTLES, BEAVER, AND BIRDS
- C) DETERMINE FEASIBILITY OF WEED HARVESTER ACQUISITION/RENTAL

PRIORITY 3

- A) UPGRADE ADAM LAKE HIKING TRAILS
- B) DEVELOP BACKCOUNTRY CANOE ROUTE
- C) UPGRADE OSKAR LAKE AND MAIN EAST/WEST PARK ROADS

- A) DEVELOP GREBE LAKE INTERPRETIVE TRAIL
- B) DEVELOP GEOLOGY EXHIBIT
- C) DESIGN AND IMPLEMENT "ECOTOUR" SIGNING SYSTEM

- A) DESIGN PROGRAMS TO INCREASE VIEWABILITY OF WILDLIFE IN SPECIFIC AREAS OF THE PARK
- B) INVESTIGATE FEASIBILITY OF REINTRODUCING OTTER AND GEESE INTO THE PARK

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