Riding Mountain National Park

Government of Canada

Department of Indian Affairs
And Northern Development

National Parks Service • Planning
Alex J. Reeve, Assistant Director  
National and Historic Branch  
Department of Indian Affairs and Northern Development  
Ottawa, Canada

Dear Mr. Reeve:

We, who have worked on the research, analysis and planning directed toward the further development of Riding Mountain National Park, take pleasure in submitting the enclosed report of findings and recommendations to you.

It is our feeling that we have utilized every source known to us in our investigations. The Park Staff has given us their complete cooperation. We have taken the opportunity to survey the site by aircraft as well as on the ground. We have met with the staff at the Regional Office in Calgary and in the Park to review the Park's potential before concluding our investigations and proposals.

It is our hope that you will find this Provisional Master Plan acceptable and usable in the future development of Riding Mountain National Park.

Respectfully submitted,

Phillip E. Flores
THE PROVISIONAL MASTER PLAN

is a vehicle for further communication between individuals involved in guiding the development and operation of Riding Mountain National Park. It consists of a comprehensive review and assessment of existing conditions and data available to the Planning Consultant.

The objectives of the plan:

To preserve a rolling plateau which lies 1,000 feet above the vast prairies of southwestern Manitoba.

To conserve the natural attractions—physiographical features, geological formations, ecological successions and the wildlife therein.

To stimulate the visitor's interest in the Park's natural attractions by means of an interpretive program.

To provide the necessary amenities so the visitor may enjoy his visit to the Park.

UNITY was typified by the Chinese at the dawn of civilization by the symbol YANG and YIN which express complete and balanced unity of two opposing yet complimentary elements—man and woman, earth and sea, and in the context of Riding Mountain National Park, the resolution of prairie and upland plateau, animal and forest, or man and nature.
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## Bibliography
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  Les Parcs Nationaux
* National Historic Parks
  Parcs Historiques Nationaux
Canada is the second largest country in the world. It extends across North America from Newfoundland on the Atlantic to British Columbia on the Pacific. This vast area includes a wide range of topographic and climatic conditions as well as countless natural resources. Settlement has been primarily by the French, English, Scotch and Irish. The population of Canada tripled since the turn of the century. It is understandable that the combination of these diverse social and physiographical factors should result in spectacularly unique conditions.

The National Parks of Canada were specifically created to preserve these unique, natural areas. The National Parks System began in 1887 when an area of 260 square miles was set aside at Banff. Today, on its 80th anniversary, there are 19 preserves totalling more than 29,000 square miles, distinctive in beauty and splendor. Section 4 of the National Parks Act cites three basic requirements regarding the purpose of Canadian National Parks—(1) the areas are dedicated to all the people of Canada, (2) they are for the benefit, education and enjoyment of the people of Canada, and (3) they are to be maintained and made use of so as to leave them unimpaired for the enjoyment of future generations.

The most fundamental and important obligation of this act is the preservation of significant natural resources. Because the country is relatively young, most of its inhabitants are in daily contact with nature. As population figures continue to rise and urbanization increases, the role of the National Parks will become more and more apparent. National Parks provide the recreation, refreshment, aesthetic enjoyment and knowledge essential to national health and well-being. It will offer an opportunity for Canadians to experience the wilderness which is essential in understanding basic elements of their history, development and culture. The only way to preserve this for tomorrow is by intelligent and appropriate uses of Park resources today. As de Vos said, "Man's inherent desire to return to his natural surrounding, his deep mental and physical need to be revitalized through communion with nature have made the National Parks of Canada our most cherished heritage."
The Prairie Provinces of Manitoba, Saskatchewan, and Alberta form the heart of Canada. The rolling, green hills and the rugged, forested mountains of the east and west coasts level out to form the Canadian great plains. Here the peaceful, open prairie lands stretch out before the eye.

Agriculture is the principal economic pursuit in this region. No other area can compare in size or degree of mechanization with the huge, grain farms. This area has correctly been called the breadbasket of Canada. Because of this, agriculture remains the largest primary industry in the country.

There are three National Parks in this region—Riding Mountain National Park in Manitoba, Prince Albert National Park in Saskatchewan, and Elk Island National Park in Alberta. These three National Parks are the exceptions in a system where most are either so-called "mountain" or "maritime" parks. In contrast to the towering peaks and pounding sea, Riding Mountain, Prince Albert and Elk Island are the "Prairie Parks" which offer the visitor a broad panorama of prairie scenes.

Canada and the United States are extremely proud of their common boundary, which is the longest unfortified international boundary in the world. Ease of access between the two countries facilitates a healthy and continual mixing of peoples. As a result, many Americans travel north into Canada during the summer months to enjoy the National Parks.

The Trans-Canada Highway facilitates rapid, mass automobile traffic. This major highway forms the backbone for vehicular traffic in the region. The railroad systems help supplement the automobile traffic by offering extensive and efficient facilities to the commuter and traveler.
REGIONAL SETTING

CONTEXTE RÉGIONAL
Riding Mountain National Park is located in southwestern Manitoba, approximately 150 miles northwest of Winnipeg. The Park contains 1,150 square miles within its boundaries. Its length is approximately 67 miles while its greatest width is 26 miles.

The Park visitor follows two major automobile routes to the Park. The first is by the Trans-Canada Highway to Brandon and then north 53 miles on Highway 10. The other popular approach is via Portage La Prairie to Minnedosa on Highway 4 and then north once again on Highway 10. As a result, a very large majority of all visitors approach the Park from the south. The exceptions travel either Highway 5 north to Highway 19 which enters the Park from the east at the Norgate Entrance, or travel south down Highway 10 through Dauphin for 9 miles to the North Entrance to the Park.

The automobile is and will most likely continue to be the principal means of movement to the Park. However, airplane connections at Winnipeg are excellent and from this terminal a flight travels daily to Dauphin, just 9 miles north of the Park. This form of transportation will increase in importance as national awareness of Riding Mountain increases.
PROVINCIAL SETTING

CONTEXTE PROVINCIAL
historical notes
existing developments
existing land use
visitor use
When the first white settlers immigrated into the area in the early 1900's, they found a mixed band of Ojibway and Saulteux Indians had succeeded the former Assiniboine and Cree Indian tribes. The Canadian Government recognized the value of this particular location, for in 1896 an order in council created fishing reserve No. 61 A. This document reserved the area until 1930.

In 1906 control of the area passed to the Forestry Branch of the Department of the Interior where it remained until the National Parks was formed in 1930. The area was selected as a National Park because it was not only a representative area but also included dynamic physiographic variations.

The name for the new Park was derived from the Cree word, "nawawgunwodju", which means "hill of the buffalo chase" or Riding Mountain. Many of the points of interest in the Park have also been called by their Indian names—Wasagaming means clear waters.

Riding Mountain National Park was officially opened on July 26, 1933. Many of the activities which were existing within the Park prior to its establishment as a National Park have been allowed to continue. Today, these uses do not conform to National Park Policy. As a result, they are referred to as "adverse uses".

Logging began about 1910 and proceeded unrestricted until 1938. As a result, "when the Park was established in 1933, fires and unrestricted cutting had depleted most of the valuable timber". Controlled cutting continues within the Park today.

Grazing and haying have been going on since the Forest Reserve days, 1920's. Life tenure permits for grazing were issued for the first time in 1936. The number of cattle in the Park reached a peak in the 1950's and while fewer permits have been issued in recent years, the overall number of cattle has remained fairly constant.

The city of Dauphin which is located 9 miles outside the north boundary of the Park has used Edwards Lake as a water source for at least 50 years.

The Riding Mountain Forest Experimental Area, administered by the Department of Forestry, was established more than 25 years ago. This use was created, therefore, after the National Park was formed. The Station is primarily interested in the regeneration of commercial forest products. This use directly conflicts with the primary purposes of Riding Mountain National Park.

The Cadet Camp and Church Camps on Clear Lake must be considered adverse uses, also, because of their non-conformity to Parks policy. They do not serve all the people of Canada. The same can be said of the private cottages in Wasagaming and in the north-shore subdivision on Clear Lake. Many of the cottages existed before the Park was formed. Through the years these and others have been given grants of longevity.

The townsite of Wasagaming also presents many adverse uses. An extensive townsite study is needed to fully evaluate and determine what services should be offered. Obviously, the mobile cabins, roller rink, and dance hall are not essential to the function of Wasagaming as a Park Service Centre.
Riding Mountain National Park is primarily a summer resort, however the National Park is open all year around. Wasagaming townsite is highly developed and summer activities are generally concentrated near the southern shore of Clear Lake and in the townsite. A large park area has been laid out with artistic walks, pergolas, flower beds, hedges and other botanical displays. Government facilities within the townsite include an administration building, museum and community building, Park entrance, fire hall, Park information centre, parking areas, RCMP detachment, Park employee residences, amphitheatre, dressing rooms, bowling green, boat launching area, breakwater and pier, swimming beach, picnic area, horseshoe pits, tennis courts and pavilion, and children's play area. Public services and amusements include a bowling alley, dance hall, motion-picture theatre, roller-skating rink, riding academy, post office, restrooms, telephones, ice and wood dealer, and laundromat. The townsite has a number of hotels, motels, cabins, bungalows and lodges. There are several stores that carry dry goods as well as groceries, service stations, souvenirs and curio shops.

Winter activities in the Park centre in two main areas. Clear Lake offers ice fishing and Mount Agassiz Ski Area is served by a modern T-bar and two rope tows, and a ski chalet. Limited snow cruising is allowed in the Park on designated trails.

There are two campgrounds in the vicinity of Wasagaming. Clear Lake Campground is adjacent to the townsite on the west and is usually referred to as the "portable cabin" campground. Spaces are let on a seasonal basis. It is a serviced campground with kitchen shelters, flush toilets, stoves and electrical connections. Wasagaming Campground is located east and south of the townsite. This area was recently opened and all units should be completed soon. Spaces are provided on a daily basis. This campground has numerous tent and trailer sites and includes kitchen shelters, stoves, service buildings with showers. Water, sewer, and electrical connections are provided for trailer units.

Limited camping facilities are provided in four other locations in the Park and are accessible by existing Park roads. Moon Lake Campground provides for tent camping with some kitchen shelters and stoves. There are dry toilets and a fishing pier. Lake Audy Campground has more spaces for tent campers and provides some kitchen shelters and stoves. There are dry toilets, a boat launching site, and a fishing pier. Lake Katherine Campground is relatively new and the development here provides for tent camping with kitchen shelter and stoves. Water and flush toilets are provided. Whirlpool Lake Campground is a small area which provides for tent camping. One kitchen shelter, stoves, water, dry toilets and a fishing pier are available. A limited group camping area is available on the southwest shore of Clear Lake. It has one kitchen shelter.

EXISTING DEVELOPMENTS

AMÉNAGEMENTS ACTUELS
In addition to the area at Clear Lake, picnicking areas are available at Dead Ox, Whirlpool, Lake Audy, Wishing Well, Spruce, Clear Spring, Aspen and Grayling Lake.

Situated above the east bay of Clear Lake is the 18-hole golf course. The course is built on rolling terrain crossed by a winding stream and is quite interesting and challenging to the golfer. The pro shop and club house are operated by concessionaires. Just below the golf course is the superintendent's residence. Next to the residence is Wishing Well Garden which includes a picnic area.

Near Lake Audy a special area of 2,000 acres encloses a small, exhibiton, buffalo herd. A historic Indian Cemetery is located just south of Lake Audy road where it joins Clear Lake road.

Marked hiking trails can be found at several locations in the Park; however, these are short and experiences are quite limited. Special bridle paths from the Riding Academy will take riders to Lake Katherine or Beaver Lodge.

Lookouts are provided at two locations in the Park for observation of the surrounding terrain. There are eleven fire towers—five adjacent to the Park and six within the Park's boundaries. These are manned in season. Thirteen Warden Stations are situated around the Park boundary. The Park Maintenance Compound is located southeast of the townsite.

There are approximately 80 miles of improved roads in the Park. Highway 10 is a "rural collector" with a length of 32 miles. Clear Lake-Norgate and Clear Lake Circuit roads are classified as "rural local" with lengths of 19 and 16 miles respectively. Lake Audy road (11.0 miles), Lake Katherine Road (1.0 miles), and Whirlpool Lake Road (2.0 miles) are classified as "access" roads and total 14 miles. There are also various other types in the Park's system—urban streets in the townsite, campground roads, service roads and fire roads throughout the Park. (Information taken from the National and Historic Parks Road Classification System Report, May 8, 1967)

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<tr>
<th>RESUMÉ CAMPGROUND FACILITIES</th>
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<tbody>
<tr>
<td>CAMPGROUND</td>
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<tr>
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*trailer or "portable cabin" units
**kitchen shelters, toilet buildings, and service buildings

RESUME CAMPGROUND ET FACILITIES

AMÉNAGEMENTS ACTUELS

EXISTING DEVELOPMENTS
EXISTING LAND USE

UTILISATION ACTUELLE DU SOL
TRENDS NATIONAL PARKS

During the year of 1965, visitor attendance in the National Parks across Canada reached a record high of more than nine and one half million people. This is nearly three times the attendance figures set ten years earlier in 1955. The increase is prominent and there is no indication that the demand for National Parks will lessen in the future. In fact, the demand is expected to double by 1970.

VISITOR CHARACTERISTICS

The 1962 Park Use Survey by G. D. Taylor states, "Riding Mountain National Park, as pictured by this survey, is very much a regional park. There is a strong local interest in the Park and in the maintenance of the Park as it is." This can be seen in the following visitor-use statistics compiled in that survey.

Of all visitors, 85% are Manitobans and a notable segment of the remaining visitors are from Saskatchewan or North Dakota. In addition, 60% of the total respondents had visited the Park the year before and it appears that many visitors are in a habit of visiting the Park several times a year. Of those surveyed, 75% live within 300 miles of the Park and 86 1/2% of Canadians live within 300 miles also. It was pointed out that less than 5% of the Canadians live more than 1,000 miles from the Park.

TRENDS RIDING MOUNTAIN NATIONAL PARK

Attendance records for Riding Mountain National Park are limited and because of particular visitor characteristics, are very general. Provincial Highway 10 carries a volume of "passing through" traffic which has been counted into entrance records over the years. It is also evident that "in and out" traffic at Wasagaming inflates the Park entrance figures. In order to realize realistic attendance figures during any one year, it is necessary to adjust visitor entrance figures down by 25%.

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TRENDS PROVINCIAL PARKS

Meaningful attendance figures of the Provincial Parks in Manitoba are available for the period of 1964 to 1966. Limited statistics are also available for the period of 1961 to 1963. All of these figures show a marked increase in the use of Provincial Parks.

VISITOR ACTIVITIES

Of those visitors who stay overnight in the Park, 31% remain for more than a week. Over half prefer indoor accommodations of the cabin-kitchen type. Over 50% of those seeking outdoor accommodations preferred the serviced campgrounds over forest campgrounds. The primary activities of the visitor are "rest and relaxation". Picnicking, swimming, motoring, nature observations, boating, hiking, fishing, golfing, riding and cycling follow in that order.

VISITOR USE -- NATIONAL PARKS

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VISITOR USE -- RIDING MOUNTAIN NATIONAL PARK

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VISITOR USE -- PROVINCIAL PARKS

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*Adjusted visitor use -- 25% reduction for "passing through"
**Total number in the park for any part of a day
***Counted under old method of camper days - 1962

Assumed value. Studies underway to determine accurate basis for measurement.
VISITOR IMPRESSIONS

It is interesting to note that most visitors seemed to be reasonably satisfied with the development at Riding Mountain National Park. However, there were some common complaints which point out serious problems and inconsistencies in the development and management of the Park. The shortage of Park facilities, primarily day-use areas and campgrounds away from the Park centre was pointed out often. The minimum standards and poor condition of the Park's limited road system was noted. Suggestions were made to offer better "opportunities to appreciate the wonders of nature". Better signing is needed not only in the Park but also at strategic points located peripherally to Riding Mountain. The Park Use Study pointed out that the Park is off the main east-west travel route across Canada and in many cases is located peripherally to the main interests of many visitors. How can anyone find Riding Mountain National Park when there is no indication along the well-traveled highways of the region? One can find Clear Lake---but is that Riding Mountain National Park?

PARK IMAGE

In the 1962 Park Use Survey respondents were asked to give their preference for the purpose of National Parks. The results of the compilations are quite significant. Both Canadians and Americans were in general agreement as to the purpose---"to preserve the forests and wildlife". The significant difference was in the item rated second, "The Canadian visitor places more emphasis on facilities for physical recreation while the American tends to emphasize the appreciation of nature."

In his study of the Resources and Related Problems of Riding Mountain National Park, A. de Vos makes this most significant statement. "It is unfortunate that attitudes of the visitor to the Park have become established along lines which are not considered favourable to a 'leave nature alone philosophy'. The majority of visitors, in my opinion, come to the Park to enjoy the amenities normally offered by Provincial or city parks, namely, bathing, sun-bathing, dancing and indoor recreation, and not to see 'nature in the raw'. It will be difficult to change these attitudes among people in the region, since they are firmly established."

PROJECTED TRENDS

Until such time as the Park is developed and managed as a National Park rather than a "regional park" visitor use should not increase greatly. In 1964 the increase over the preceding year's attendance was only 2%. The increase the following year was a mere 5.5%. These figures indicate that the Park's image and the existing facilities now there will not support any marked increase in visitor use categories related to National Parks. To consider the National Parks' average of an annual increase of 8% in visitor use at Riding Mountain would be generous. Therefore, it is estimated that the average increase in visitor use and camper days will be approximately 5%. Applying this simple method to project visitor use in relation to the provision of the most basic facilities, the Park could expect 674,000 visitors and 459,000 camper days by the year 1970. Similar figures for 1975 would be 860,000 and 585,000 and for 1980 would be 1,130,000 and 746,000 respectively. These figures could change drastically if the Park was re-oriented, developed and managed along present National Parks guidelines.
introduction
physiography
geology
water
soil
flora
fauna
climate
development potential
The Canadian National Parks System was created to preserve unique natural areas from extinction due to the pressures of man's extensive growth and development. The basic purpose is "to preserve for all time areas which contain significant geographical, geological, biological or historic features as a national heritage for the benefit, education and enjoyment of the people of Canada".

The specific application of this concept is of great importance. The first step is to recognize these significant features, then develop them so that visitors can experience this wilderness without jeopardizing its existence. Both of these steps are equally essential if the Parks Service concept is to be achieved.
Riding Mountain National Park is situated on a rolling plateau 1,000 feet above the vast prairies of Manitoba. It joins the Porcupine Mountains, Duck Mountain and Turtle Mountain in forming a rugged spine for the Province. While commonly referred to as mountains, their topographical features are more accurately described as high plateaus, suddenly dropping off as escarpments.
The plateau at Riding Mountain varies from gently undulating to distinctly rugged with many hills and ridges. Because of variations in elevation and land forms, a large range of ecological zones exists within the Park. The eastern portion of the Park contains the Manitoba escarpment. Most of the Park is situated above the escarpment or what is often called the Second Prairie Steppe of the Great Plains. The eastern escarpment offers a spectacular view as it abruptly rises from 1,100 feet to a maximum elevation of 2,410 feet in approximately four miles. The highest elevation in the Park is 2,450 feet and is just seven miles from the lowest elevation—1,050 feet. From the rugged, heavily-forested escarpment the land gradually slopes downward to an elevation of 2,000 feet in the western portion of the Park. Here is the peaceful prairie country where the Birdtail River twists and turns its way past the Sugar Loaf Hills. These rolling hills are a contrast to the flat, river valley and offer a vantage point from which the valley can be viewed.

Riding Mountain lies within both the Assiniboine and Nelson River watersheds. The north is drained primarily by the Wilson, Vermillion, Orche and Turtle Rivers which in turn empty into Dauphin Lake. The Birdtail, Minnedosa, Rolling and eventually the Assiniboine Rivers drain the southern portion. In the east these water systems have cut many steep canyons. As a result of this erosive action, alluvial fans commonly occur at the base of the escarpment.
Riding Mountain was formed during the cretaceous period as was the Rocky Mountains. Riding Mountain is part of an erosive plateau formed by cretaceous rocks of the Ashville, Vermillion River, Favel and Riding Mountain formations. This rock was laid down by the shallow marine waters of Lake Agassiz sixty million years ago. The escarpment was the western shore of the lake. As the lake withdrew, erosion cut deep canyons into the escarpment. By looking north and east of the escarpment, one can see the series of ridges which were formed in succession as the lake disappeared from Riding Mountain.
Glaciation during the Pleistocene Period molded and reshaped the surface of Riding Mountain. Immense sheets of ice scraped and gouged out pockets of earth, leaving as it receded, moraines, lake basins, huge boulders and meandering lake shores. To the northeast a second large lake was formed by the melting glacial ice. Over many thousands of years this lake receded to form Lake Dauphin, Lake Winnipegosis, Lake Manitoba and Lake Winnipeg.
Riding Mountain National Park contains approximately 37 square miles of water. These waters greatly contribute to the overall character of the Park. The qualities of these waters range from Clear Lake, which is the largest and deepest, to the many shallow, marshy lakes. However, there are many lakes between these two extremes which also have outstanding scenic and recreational values. Gunn Lake, Triple Lakes, Deep Lake and Spruce Island Lake are just a few of these.

The many springs, streams, and rivers throughout the Park add a great deal to the scene. The Rolling, Ochre, Whirlpool, Vermillion and Birdtail Rivers with their meandering courses are outstanding examples.

The eastern escarpment offers an excellent study area for observing the tremendous power of water. The many deep canyons here bear witness to this. Experiments are being conducted here in an attempt to control the washing of shale into alluvial fans onto the agricultural lands just east of the Park. While this type of experimentation is acceptable in most situations, here it is effecting a change upon a most outstanding natural environment.
Cretaceous shales of the Riding Mountain formation underlie most of the Park except above parts of the eastern escarpment. The soils in the Park are chiefly of glacial origin. Glacial till materials consisting of boulders, cobbles, gravel, sand, silt, and clay appear below the lacustrine and alluvial materials. These materials were combined by the continental ice sheets to form soils ranging from loam to clay loam.

There are three major soil types found in the Park. The Waitville clay loam association is the most commonly found. These are the Grey-Wooded soils of medium texture which developed on moderately calcereous boulder till. This zone occurs on the slopes above 2,000 feet where aspen, birch, spruce and tamarack are prevalent. Leaching and degradation is encouraged due to the humid climatic conditions at this altitude. As a result, this soil has a much lower organic and nutritional content than the grasslands.

Next in importance is the Erickson association of the grey-black subzone which is found in the southwest part of the Park. The soil acts as a buffer strip on the south slope of Riding Mountain between the strongly leached grey wooded zone and the slightly degraded Newdale clay loams. This type of soil is predominate at 1,900 and 2,000 feet elevations where the peaty meadow soils are most commonly found.

The third major type of soil found in the Park is the Seech, coarse, sandy loam association. This is a grey-black soil which is found on shaly, gravel outwashes. This soil is found in the true grassland areas of the Park such as the Lake Audy area and the Birdtail Valley.
Riding Mountain National Park is situated primarily in the mixed woods section of the boreal forest zone (Canadian life zone). The southwestern fringe of the Park belongs to the aspen grove section (transition life zone) and a portion of the extreme eastern fringe below the Manitoba escarpment is in the aspen-oak section.

The eastern escarpment is in itself a very unique area. The natural transition from a rugged forested escarpment to an open, treeless plain is quite dramatic. Here, four distinct vegetative zones combine in a distance of less than four miles. An open hardwood and spruce forest covers the uppermost elevations, followed by closed, mixed coniferous and deciduous cover, the third zone is aspen and birch cover and the lowest zone is of hardwood and coniferous cover.

The vegetative patterns of the Park are divided into the following general portions; eastern, central and western. The higher, northern and eastern parts are heavily forested with aspen (Populus tremuloides), and white spruce (Picea glauca). White birch (Betula papyrifera), balsam poplar (Populus balsamifera), and jack pine (Pinus banksiana) are associated species. The more moist areas in the east support black spruce (Picea mariana) and tamarack (Larix laricina). White elm (Ulmus americana), green ash (Fraxinus pennsylvanica), Manitoba maple (Acer negundo) and bur oak (Quercus macrocarpa) are found at the base of the escarpment.

In the central area the aspen forest dominates. This is the most common cover in the Park primarily because of its rapid regeneration after fires and other destructive phenomena. Hazel (Corylus cornuta) is most commonly associated as an aspen understory. Willows (Salix bebbiana, S. canadensis, S. petiolaris var. rosmarinoides, S. serissima) are abundant and often in association with the dwarf birch (Betula glandulosa). Common shrubs of the semi-open southwestern regions are Rose (Rosa acicularis), chokecherry (Prunus virginiana), pin cherry (P. pensylvanica), cranberry (Viburnum opulus and V. edule) and buffalo berry (Shepherdia canadensis).
In the western areas snowberry (Symphoricarpos albus), bearberry (Arctostaphylos uva-ursi), shrubby cinquefoil (Potentilla fruticosa), hawthorne (Cratagus succulenta) and nannyberry (Viburnum lentago) frequently grow on the fringe of the open grasslands. The grasslands are of two basic types. One is an upland fescue prairie association and its derivations. The second is the wet areas which are dominated by sedges (Carex spp.). The climax dominant is rough fescue (Festuca scabrella) with important subdominant grasses, needle grasses (Stipa spartea and S. richardsonii) and junegrasses (Koeleria cristata).
The National Park at Riding Mountain today is an island of wilderness in the midst of an agricultural region. Wildlife is forced to remain within the Park's boundaries for its own preservation. This area provides a wildlife sanctuary where hunting and trapping are not allowed. Illegal taking of game does exist, however, and the Park administration spends a great deal of time attempting to curtail such activity. Since this area forms an isolated, biotic community, a healthy balance between predator and prey is essential. This has been achieved within the Park today.

Fifty-three mammals have been observed within the Park. The ungulates are particularly well represented. The elk (C. c. manitobensis) is most commonly seen. Moose (Alces andersoni) and white-tailed deer (Odocoileus virginianus dacotensis) are also frequently observed. These species benefit from the early, successional forest stages. If fire and other naturally destructive phenomena are removed from the forests, these populations would decrease in number. A small number of mule deer (Odocoileus hemionus) are also present but seem to be disappearing because of the whitetail's competition. In all probability the mule deer will follow the wood caribou (Rangifer caribou) into extinction.

Several predators are still able to exert pressure on the biotic community. Their effectiveness in controlling the hoofed animals is hampered by their persecution outside the Park. The timber wolf (Canis lupus), coyote (Canis latrans), black bear (Euarctos americanus) and lynx (Lynx canadensis) are the most important ones. In 1964 Wardens estimated there were 40 wolves in the Park while black bears and coyotes were common and the lynx was rarely seen.

Smaller animals also play an essential role in the ecological struggle for existence. The beaver (Castor canadensis), snowshoe hare (Lepus americanus), Richardson's ground squirrel (Citellus richardsonii) and pocket gopher (Thomomys talpoides) are the most active specimens.
Fishing is allowed within the Park if a license is obtained. Pike, yellow walleye, and yellow perch are the native fish. The stocking of several lakes in the Park has unfortunately been with "exotic" varieties of fish---eastern brook trout, rainbow trout and lake trout.

The Whirlpool River and Whirlpool Lake areas are well known in entomological circles for their variety of butterflies. The black swallowtail (Papilio nitra) and asiatic swallowtail (Papilio machaon hudsonianus) are rare specimens.
Riding Mountain National Park is described as a cool summer, humid continental climatic type of Köppen classification. The area experiences colder winters and a much wider temperature range than other areas of comparable latitude. July and January experience the most extreme temperatures—64°F to 65°F and 2°F to 3°F, respectively. The mean temperature is 35°F.

There is approximately 18 inches of precipitation each year. Eighty percent of this falls as rain between the months of April and October. June is the wettest month with 7.5 inches, while December is the driest. The average annual snowfall is 45 inches. The snowfall usually starts the first week of November and has melted by early April. The frost-free period is between 90 and 100 days. The first frost is expected the first part of September with fall coloration beginning in late September or early October.

Microclimatic conditions within the Park are greatly dependant upon specific topographical conditions. The eastern escarpment has a lower temperature and gets more precipitation than the remainder of the Park. This is the result of north and northwest winds which are created by passing low pressure systems which absorb moisture from numerous water bodies to the east. As they hit the escarpment, they are forced upward and the air condenses, forming precipitation which falls upon the plateau. Because there is more moisture, vegetation is more profuse than on the treeless lowlands.

AVERAGE JULY TEMPERATURE

AVERAGE JANUARY TEMPERATURE

AVERAGE ANNUAL SNOWFALL
Riding Mountain National Park is considered as a nature-oriented Park. The basic values of the Park, save those few serious encroachments on the natural scene, are still remaining relatively unexplored and uninterpreted. The natural aspects of the Park should limit the type and intensity of the development in the Park. The physiographic features, geological formations, the displays of flora, the relationships of fauna, and the climatic conditions should be fully realized before anymore development takes place within the Park. Therefore, the development potential is directly related to these aspects of the Park.

Physiography: The rolling plateau some 1,200 feet above the vast prairie of Manitoba joins the Porcupine Mountains, Duck Mountain, and Turtle Mountain in forming a rugged spine in the western region of Manitoba.

Geology: The eastern portion of the Park displays the Manitoba escarpment while most of the rest of the Park lies below the escarpment. From rugged escarpment the land gradually slopes downward to the western portion of the Park. Glaciers molded and reshaped the Park as the immense sheets of ice receded leaving moraines, lake basins and huge boulders. The soils in the Park are basically glacial in origin.

Flora: The eastern escarpment is a unique area in that there are four distinct vegetative zones which are combined on its slopes. The vegetative pattern of the Park is divided into three general portions, each with its own characteristics.

Fauna: Mammals, fish, water fowl and birdlife abound in great varieties throughout the Park.

Climate: The area experiences a wide range of climatic conditions throughout the year. There are many micro-climates in the Park which are due to specific topographical conditions.

The development potential of Riding Mountain as a National Park has hardly been recognized through the years by most people. Since its inception thirty years ago, little attention has been given to the vast Park which lies mainly north and west of Clear Lake. If the Park is considered at its present level of development and management, it can reasonably be seen that it has reached its optimum use. However, if the Park was given realistic consideration as to its true potential as a nationally significant area, the whole outlook would be changed. Herein lies the real development potential of Riding Mountain National Park.

Recreation: To preserve large blocks of natural parkland is of the greatest importance. This should limit to some extent the ultimate development of Riding Mountain. A system of campgrounds, picnic areas, swimming beaches, overlooks, hiking and equestrian trails could be supported. Skiing, controlled snow cruising and ice fishing would have their place at Riding Mountain.

Interpretation: The potential of Riding Mountain National Park is based on the natural environment whose basic values offer much of educational interest to be interpreted for the visitor. Orientation and interpretative centers, overlooks and nature trails (both foot and equestrian) should be incorporated into the Park's future development.

Service Centre: The present townsite would fill most of the visitor needs as a service centre.

DEVELOPMENT POTENTIAL

POSSIBILITÉS D'AMÉNAGEMENT
planning considerations
zoning plan
circulation
development plan
clear lake plan
clear lake center plan
development program
cost estimates
boundary adjustments
future outlook
The development of Riding Mountain National Park should be guided by a number of planning considerations. These will result from an evaluation of the land capabilities and development potential. The evaluations would be reflected in the zoning plan which will guide the future development of the Park. The following items should be taken into consideration.

- The National Parks Act, Policy and Regulations
- The location of the Park and the regional characteristics
- The history of the region and particularly the Park
- Existing Park facilities, land uses and boundaries
- Existing and projected trends of visitor use
- The character of the natural resources of the area: physiography, geology, water, soils, flora and fauna
- The climate
- Economic factors of budget, development costs, operation and maintenance costs

To define the basic character of the Park and to describe its role in the National Parks System.

To identify and delineate the major resources of the Park as they relate to the human and natural characteristics of the area.

To establish a zoning plan which will provide a sound balance between use and preservation for now and the future.

To return those disturbed areas of the Park to their natural, ecological environment.

To establish an overall plan for the long-range development and operation of the Park and to ensure that it complies with existing legislation and policy.

To develop a natural and human history program to interpret the many facets of the Park.

To provide the basic guidelines relating to the circulation system, roads and trails for both the visitor and the Park Staff.

To designate areas for the development of visitor facilities in relation to character, scale and visitor demand in the Park.

To provide the basic guidelines pertaining to the location of administrative and operational facilities.
The establishment of Riding Mountain National Park provided a high degree of protection for the area included within its boundaries. A higher degree of protection is required for specific sites and areas to retain the overall character of the Park. Landscape can be destroyed in two ways; one through natural forces, or second through the deliberate choice of man. The first cannot be controlled; the second can. Zoning is one means of control.

The objective of the Zoning Plan is long range and should assert that the character of the Park is maintained. The Plan is the means for providing administrative and development control that will ensure a proper balance between visitor use and the purpose for which the Park was set aside.

The Zoning Plan defines five Zones: Unique Areas, Wilderness Recreation Areas, Natural Environment Areas, General Outdoor Recreation Areas and Intensive use areas.

CLASS I Unique Areas---the distinguishing feature of these areas is that management objectives are aimed at the protection or preservation of the landscape rather than toward the on-site use of the area by man.

CLASS II Wilderness Recreation Areas---the distinguishing feature of this class is the controlled utilization of the landscape by man. The primary concern of management is the enjoyment of the landscape through a close, personal contact with nature. Class II lands are roadless areas.

CLASS III Natural Environment Areas---the concept of the wilder-threshold best describes this land-use category. The area serves as a buffer between Class I or II land and the more intensively developed areas in Class IV. These lands form the natural backdrop which is so essential to many Park features such as highways, parkways and lodges. The natural environment areas are critical in protecting the wilderness character of the Park. Permissible development would be scenic, Park roads.

CLASS IV General Outdoor Recreation Areas---these areas are those in which intensively developed recreational facilities are located or proposed. Included are major highways, campgrounds, and trailer parks, large day-use areas and similar facilities.

CLASS V Intensive Use Areas---the management and operation of the Park requires land areas for administrative, operational or residential facilities. Lands in this category must be designated in non-critical areas. These areas should not be competing for space with land-use requirements in a higher category. They are to be designated in areas where they do not interfere with other Park purposes.

There are several unique areas, Class I, within Riding Mountain National Park which must be preserved as they presently exist. There are other features that should be protected to a high degree so they may proceed through their natural cycles. However, these have not be specifically identified on the Zoning Plan. The following features are significant and merit special consideration.

- The Escarpment--a substantial typical area
- Vegetative Zones of the Escarpment
- Shoreline of Ancient Lake Agassiz
- Drumlins at the headwaters of Rolling River
- Butterfly Colonies at the north end of Whirlpool Lake
- Birdtail River Valley
- Sugarloaf Hills
- Birdtail Valley Moraine

As research into the natural and human history of the Park continues, further areas will be identified and designated as unique areas. The Provisional Master Plan has indicated just a few of the outstanding areas. Undoubtedly, there are others.
LAND USE CLASSES

CLASSES D'UTILISATION DU SOL
OBJECTIVES OF THE CIRCULATION SYSTEM

The objective and basic concept of the circulation system is simple. This system would provide a 'freeway' for cross-park traffic, two interior parkway loops, access roads to park facilities and trails, all in scale and harmony with the Park's environment. The basic concept is to establish a circumferential parkway, which will contain within its perimeter, most of the attractions of Riding Mountain National Park. A system of foot and equestrian trails would also be provided to permit access to a series of primitive facilities. These could also be used as a corridor for quick access to all parts of the Park for management and protection.

ROAD CONSTRUCTION PROGRAMME

Relocation, realignment reconstruction and new road construction will be extensive in the development of Riding Mountain National Park.

PRIORITY I

<table>
<thead>
<tr>
<th>MILES</th>
<th>Relocation, realignment reconstruction and new road construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake Audy–Vermillion Day Use</td>
<td>10</td>
</tr>
<tr>
<td>Vermillion Day Use–Route 10</td>
<td>16</td>
</tr>
<tr>
<td>Park Centre Access Road</td>
<td>3</td>
</tr>
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</table>

PRIORITY II

<table>
<thead>
<tr>
<th>MILES</th>
<th>Relocation, realignment reconstruction and new construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear Lake Parkway Loop</td>
<td>22</td>
</tr>
<tr>
<td>Wasagaming–Urban Collector</td>
<td>3</td>
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</table>

PRIORITY III

<table>
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<tr>
<th>MILES</th>
<th>Relocation, reconstruction and new construction</th>
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</thead>
<tbody>
<tr>
<td>Norgate–Eastern Activity Centre Site</td>
<td>7</td>
</tr>
<tr>
<td>Eastern Activity Centre Site–Whirlpool Lake</td>
<td>24</td>
</tr>
<tr>
<td>Route 10–Eastern Activity Centre, Escarpment Parkway</td>
<td>44</td>
</tr>
</tbody>
</table>

CIRCULATION

TOTAL ROAD CONSTRUCTION 268

TRAIL CONSTRUCTION PROGRAMME

Many trails now exist in the Park. Many are fire roads and logging trails which have been established over the years. These have been used as a base to develop an overall system of trails. It would be difficult to establish priorities for the trail system at this time, therefore, the following is a resume of those significant parts of the system.

<table>
<thead>
<tr>
<th>MILES</th>
<th>Trail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>60 Ministic Lake</td>
</tr>
<tr>
<td>Gunn Lake</td>
<td>13 Escarpment</td>
</tr>
<tr>
<td>Long Lake</td>
<td>5 Rolling River</td>
</tr>
<tr>
<td>Sugarloaf Trail</td>
<td>2 Muskat Lake</td>
</tr>
<tr>
<td>Whitewater Lake</td>
<td>9 Central Equestrian</td>
</tr>
<tr>
<td>Ochre River</td>
<td>9 Mc Kinnon Creek Equestrian</td>
</tr>
<tr>
<td>TOTAL</td>
<td>209</td>
</tr>
</tbody>
</table>

PRIORITY IV

<table>
<thead>
<tr>
<th>MILES</th>
<th>Road reconstruction and new construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Activity Center–Mc Kinnon Creek Road</td>
<td>10</td>
</tr>
<tr>
<td>Lake Audy–South Birdtail Overlook</td>
<td>29</td>
</tr>
</tbody>
</table>

PRIORITY V

<table>
<thead>
<tr>
<th>MILES</th>
<th>Road reconstruction and new construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Birdtail Overlook–Western Activity Centre</td>
<td>15</td>
</tr>
<tr>
<td>Western Activity Centre–Vermillion Day Use Area</td>
<td>33</td>
</tr>
<tr>
<td>Sugarloaf Interpretative Centre Access Road</td>
<td>3</td>
</tr>
<tr>
<td>Whirlpool Lake–Route 10</td>
<td>5</td>
</tr>
</tbody>
</table>

PRIORITY VI

<table>
<thead>
<tr>
<th>MILES</th>
<th>Road reconstruction and new construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park Centre–Lake Audy</td>
<td>10</td>
</tr>
<tr>
<td>Route 10–North-South Thruway</td>
<td>34</td>
</tr>
<tr>
<td>Park Centre Interchange at Route 10</td>
<td></td>
</tr>
<tr>
<td>Route 10–Two Grade Separations</td>
<td></td>
</tr>
</tbody>
</table>
While Riding Mountain is a part of the National Parks System, it lacks the "image" of a National Park. Today, there is no major focal point except for the well-established "resort" area on the southeast side of Clear Lake and adjacent to the Wasagaming townsite. There is no Park impact for those true National Parks' visitors. At the present time and under the existing conditions, Riding Mountain National Park is relatively nonexistent.

The development plan has been conceived and presented with due consideration to the potential of the area designated as a National Park. This plan is broadly based on simple concepts to furnish a guide for the total park development. Its primary purpose is to provide for the optimum resource preservation and protection and at the same time provide for the controlled development of visitor use facilities in relation to the Park's natural resources. As this plan is realized and the Park is reoriented to its natural resources, the "image" and the "impact" of Riding Mountain National Park will also change decidedly.

**CIRCULATION**

The need for a circulation system is basic. This has been pointed out in some detail in the Circulation narrative on page 44. The objectives of the system are to provide:

* an access corridor for through traffic, physically separated from the parkway system;
* a peripheral parkway system for scenic drives, and
* access to the many park facilities;
* a ring road around Clear Lake to service the "outdoor recreation area;"
* access to the wilderness recreation areas by a system of foot and equestrian trails (these would also provide corridors for quick access to all parts of the park for management and protection).

**FACILITY DEVELOPMENT**

for PARK CENTRE and CLEAR LAKE  
* see pages 48 & 49

*LAKE AUDY activity area
  Day Use (50 cars)
  Camping (103 units, 50 existing)
  Boat Launch (20 cars existing)
  Buffalo Range

*BIRDTAIL RIVER activity area
  Day Use (50 cars)
  Interpretive overlook (50 cars)
  Camping (50 units)

*DEEP LAKE activity area
  Day Use (50 cars)
  Camping (50 Units)
  Boat Launch (20 cars)

*WESTERN ACTIVITY CENTER (see page 48)

*LAKE AUDY day use area
  Day Use (50 cars)
  Interpretrive overlook (40 cars)

*MC KINNON CREEK activity area
  Winter entrance (ski season only)
  Interpretive Station (25 cars)
  Equestrian Centre (summer-existing)

*ROLLING RIVER activity area
  Interpretive centre (25 cars)

*WHIRLPOOL LAKE activity area
  Day Use (25 cars)
  Camping (25 units-existing)
  Boat Launch area (existing)

*THRUWAY WAYSIDE area
  Grayling Lake Day-Use (25 units)
  Moon Lake Day-Use (25 cars)
  Camping (25 units-existing)
  Boat Launch (existing)

*WILDERNESS CAMPING
  Parking (10 units)
  Camping (12 designated areas)

*SIGN SYSTEM PLANNING (major signs)
  Direction signs on the Trans Canada Highway
  Direction signs on Provincial Highways
  Major Entrance Signs
  Park Centre Entrance
  Eastern Activity centre entrance

**DEVELOPMENT PLAN**
DEVELOPMENT PLAN

PLAN D'AMÉNAGEMENT
The concept of preservation through planned use is basic to the long-range development of Riding Mountain National Park. The development plan provides a park "impact" for every visitor through the establishment of a major entrance station and "park centre" at the northwest end of Clear Lake. This area will be the focal point for all visitors to the Park. Here the visitor will have his first contact with the Park staff and will be able to relate and orient himself immediately to the many facilities of Riding Mountain National Park. Eastern and western "activity centres" are provided to supplement the Park Centre as out stations for visitor use, management, and protection.

FACILITY DEVELOPMENT

THE PARK CENTRE is seen as a dispersed group of Park oriented visitor-use facilities centering on the visitor orientation and interpretation complex.

- Major Park entrance
- Orientation overlook (10 cars)
- Orientation and interpretation complex which includes information and orientation station, interpretive exhibit centre, secondary management and protection facilities (100 cars)
- Day-use area (200 cars)
- Day-use building
- Day-use beach (100 cars)
- Camping (200 units)
- Activity building (camping)

WASAGAMING TOWNSITE is seen as the administrative centre for the Park. The existing maintenance compound would act as a centre for maintenance and would also service the secondary maintenance shops. The townsite would remain as a servicing facility to the Park's visitors, supplying only those services that are found to be necessary. In time all adverse uses should be phased out of the Park completely.

The following existing facilities should remain:
- Administration Building
- Museum
- Maintenance Compound
- Swimming Beach
- Boating
- Visitor services - groceries, service stations, dry goods and souvenir shops, restaurants, lodges, cabins, motels.

Picnic Areas
- Wasagaming Campground
- Clear Lake Campground - eliminate portable units and develop for campers and trailers
- The following should be provided - living accommodations for all Park employees except those stationed at the "Park Centre" and "Activity Centres"

OTHER FACILITIES ON CLEAR LAKE
- Northwest Day-Use Area (50 cars)
- Northwest Beach
- Southwest Day-Use Area (50 cars)
- Southwest Group Camps (5 areas - established on church camp sites)
- South Day-Use Area (existing) (25 cars)
- South Lake interpretive overlook (25 cars)
- South Lake interpretive exhibits (2)
- Lake Katherine Campground (existing)
- Golf Course (existing)
- North Shore overlooks (2)
- North Shore Group Camp (1) (established on Cadet Camp site)
- North Shore Day-Use area (1 proposed - 25 cars) (2 existing)

THE ACTIVITY CENTRES are extensions of the Park Centre which will provide visitor-use facilities in conjunction with secondary management, operation and maintenance.

EASTERN ACTIVITY CENTRES
- Park Entrance
- Orientation - information station (25 cars)
- Interpretive centre and overlook (25 cars)
- Day Use (50 cars) Interpretive overlook (20 cars)
- Camping (50 units) Staff Housing (6 units)

WESTERN ACTIVITY CENTRE
- Orientation - information station (25 cars)
- Interpretive Centre and Overlook (25 cars)
- Day Use (50 cars)
- Camping (100 units)
- Boat Launch (20 cars)
- Staff Housing (6 units)

DEVELOPMENT CONCEPTS

CONCEPTS D'AMÉNAGEMENTS
CLEAR LAKE DEVELOPMENT PLAN

PLAN D'AMÉNAGEMENT DU LAC CLAIR
PARK CENTRE -- CONCEPTUAL PLAN

PLAN CONCEPTUEL -- CENTRE D'ACCUEIL
To realize the full potential of Riding Mountain National Park, a comprehensive development programme will have to be established, reviewed and revised through the Master Plan process.

It would be impossible to project any visitor use trends beyond those stated on page 21. Because of the present level of Park use, there is no way to foresee the demands which might be placed on the Park if it were developed and managed as a National Park. Therefore, the development plan and programme is based primarily on the potential of the area as it presently exists.

The development programme establishes a list of priorities for the systematic growth and development of the Park. This system can be directly related to the available budgets and at the same time aid in fiscal planning for years to come.

PRIORITY I

<table>
<thead>
<tr>
<th>Area</th>
<th>Day Use (50 cars)</th>
<th>Camping (50 units)</th>
<th>Boundary adjustments (8 sq. miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake Audy Activity Area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vermillion River Activity Area</td>
<td></td>
<td></td>
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<tr>
<td>Park Centre</td>
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<td></td>
<td></td>
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<tr>
<td>Park Entrance</td>
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<tr>
<td>Park centre complex (100 cars)</td>
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</tr>
<tr>
<td>Day Use (200 cars)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Day Use Building</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Day Use Beach</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Camping (200 units)</td>
<td></td>
<td></td>
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</tbody>
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PRIORITY II

<table>
<thead>
<tr>
<th>Area</th>
<th>Day Use (50 cars)</th>
<th>Camping (25 cars)</th>
<th>Programme to eliminate all adverse uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ochre River Activity Area</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Park Centre</td>
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<td></td>
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<tr>
<td>Park Entrance</td>
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</tr>
<tr>
<td>Overlook (10 cars)</td>
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<tr>
<td>Park centre complex (100 cars)</td>
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<tr>
<td>Day Use (200 cars)</td>
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<tr>
<td>Day Use Building</td>
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<tr>
<td>Day Use Beach</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Camping (200 units)</td>
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PRIORITY III

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<thead>
<tr>
<th>Area</th>
<th>Day Use (50 cars)</th>
<th>Camping (50 units)</th>
<th>Escarpment Overlooks (4 units)</th>
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</thead>
<tbody>
<tr>
<td>Ochre River Activity Area</td>
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<td></td>
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</tr>
<tr>
<td>Clear Lake Activity Areas</td>
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PRIORITY IV

<table>
<thead>
<tr>
<th>Area</th>
<th>Day Use (50 cars)</th>
<th>Camping (25 cars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest Day Use (50 cars)</td>
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</tr>
<tr>
<td>Beach</td>
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PRIORITY V

<table>
<thead>
<tr>
<th>Area</th>
<th>Day Use (50 cars)</th>
<th>Staff Housing (2 fourplexes)</th>
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<tbody>
<tr>
<td>McKinnon Creek Activity Area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winter Entrance Station</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PRIORITY VI

<table>
<thead>
<tr>
<th>Area</th>
<th>Day Use (50 cars)</th>
<th>Camping (100 units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Activity Centre</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Centre (1 building - 50 cars)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DEVELOPMENT PROGRAMME

PROGRAMME DU DÉVELOPPEMENT
COST ESTIMATES
The following cost analysis indicates the expenditures that will be necessary to develop Riding Mountain National Park. Each facility has been considered in the cost estimates. These estimates are broad and reflect approximate costs based on 1967 dollar values.

CIRCULATION SYSTEM

<table>
<thead>
<tr>
<th>Roads:</th>
<th>Miles:</th>
<th>Cost:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parkway</td>
<td>67</td>
<td>5,360,000</td>
</tr>
<tr>
<td>Realignment &amp; Reconstruction</td>
<td>164</td>
<td>13,940,000</td>
</tr>
<tr>
<td>New Construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban Collector</td>
<td>3</td>
<td>300,000</td>
</tr>
<tr>
<td>Freeway</td>
<td>34</td>
<td>4,250,000</td>
</tr>
<tr>
<td>Realignment &amp; Reconstruction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade Separations - 3 units</td>
<td></td>
<td>450,000</td>
</tr>
<tr>
<td>New Construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interchange - 1 unit</td>
<td></td>
<td>200,000</td>
</tr>
<tr>
<td>New Construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROAD TOTAL</td>
<td>268</td>
<td>24,500,000</td>
</tr>
</tbody>
</table>

Trails:

<table>
<thead>
<tr>
<th>Trails:</th>
<th>Miles:</th>
<th>Cost:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foot</td>
<td>159</td>
<td>235,000</td>
</tr>
<tr>
<td>Realignment, reconstruction &amp; new construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equestrian</td>
<td>50</td>
<td>75,000</td>
</tr>
<tr>
<td>Realignment, reconstruction &amp; new construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRAIL TOTAL</td>
<td>209</td>
<td>310,000</td>
</tr>
</tbody>
</table>

TOTAL CIRCULATION SYSTEM $24,810,000

FACILITY DEVELOPMENT

<table>
<thead>
<tr>
<th>PARK CENTRE</th>
<th>$2,920,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>includes all facilities as listed in programme</td>
<td></td>
</tr>
</tbody>
</table>

EASTERN ACTIVITY CENTRE $838,000

WESTERN ACTIVITY CENTRE $910,000

INTERPRETIVE FACILITIES $614,000

other than at centers McKinnon Creek Centre

5 Escarpment Overlooks Rolling River Centre

Rolling River Wilderness Station Birdtail Overlook

Sugarloaf Overlook South Lake Overlook & Stations

DAY USE FACILITIES $708,000

other than at centres - 450 serviced units

CAMPING $1,090,000

other than at centres 235 serviced units

12 designated wilderness areas --- 10 with trail head parking areas

6 group camps --- redevelopment of existing areas

TOTAL FACILITY DEVELOPMENT $7,080,000

TOTAL EXPENDITURES $31,890,000
The Provisional Master Plan for Riding Mountain National Park recommends three boundary adjustments:

Area 1 - An area south and west of South Lake to provide a buffer zone and access corridor around Clear Lake.

Area 2 - A small area just south of the townsite to provide for the relocation of Route 10.

Area 3 - An area in the southeastern portion of the park to preserve one of the Unique Areas (Drumlins) relative to the park and to provide a high point for the Rolling River interpretive overlook.
Today Riding Mountain National Park exists only in name and area designation. There is a regionally significant resort on the south shore of Clear Lake. At the present time there is no Park image or significant Park impact. This is not to say that the area set aside over 30 years ago as a National Park lacks any of the basic criteria for a park---only that the potential of the area has never been realized. Within its boundaries is a wealth of natural attractions and resources.

The planning process is un-ending; the Provisional Master Plan is the primary step. From this basic plan will come detailed Master Plans which will more fully consider many aspects of the Park and its development. Before the Master Planning process can go any further, several points will require further study.

- Comprehensive visitor-use inventory and analysis
- Comprehensive townsite study
- Economic impact study
- Soil origin, type and distribution study
- Climate studies relative to the Park
- Controlled burns to maintain historic environments
- Butterfly colony significance
- Management analysis study

The lack of development is an asset and will provide the opportunity for developing Riding Mountain National Park into one of Canada’s finest National Parks.

FUTURE OUTLOOK

PERSPECTIVES D'AVENIR
ACKNOWLEDGEMENTS

While the responsibility for the contents of this report is mine, this Provisional Master Plan for Riding Mountain National Park represents the combined efforts of a many-talented team. Key roles have been played by the National Parks Branch Planning Staff. Deserving special mention are Harold Eidsvik, Dennis Major, Gordon Miller, Gordon Taylor, and Dalton Muir for his excellent photographs.

Special thanks go to Superintendant Richard H. Kendall for helping to make our reconnaissance study in the Park most successful. Many of his staff were most helpful to us: Park Forester, George Rogers; Park Naturalist, Robert Walker; Chief Warden, Bud Armstrong and his staff, particularly Donald Dumpleton and Darrel Andrews.

Helpful in providing necessary data about the Province were G. F. Schnepf, Park Planner, Manitoba Provincial Parks Department and A. McCloud, Highway Engineer, Manitoba Provincial Highways Department.

In addition, we benefited greatly by our meeting with Regional Director, Donald Coombs and his staff.

Providing assistance with research, analysis, planning, graphic design and technical drafting was my staff.

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ACKNOWLEDGEMENTS

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National Parks Policy. Department of Northern Affairs and Natural Resources, Natural and Historic Resources Branch.


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