Grass River Provincial Park Management Plan



Grass River Provincial Park Management Plan

Department of Natural Resources

Parks Branch

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Approved

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Honourable Al Mackling ' Minister of Natural Resources

Park Classification

In accordance with the <u>Provincial Park Lands Act</u>, and the Provincial Park System Plan, Grass River is classified as a Provincial Natural Park.

Provincial Natural Parks represent areas which possess exceptional value or quality in illustrating or interpreting the natural heritage of Manitoba. Provincial Natural Parks are relatively spacious land and water areas that are capable of providing a wide range of outdoor recreational opportunities and which are generally adaptable to multiple-use management.

Park Precepts

The following park precepts define further the role of Grass River within Manitoba's Provincial Park System.

Grass River Provincial Natural Park will:

- o provide a semi-wilderness character and outdoor recreational experiences.
- o be managed to maintain its excellent water quality and historic waterway.
- o protect and preserve significant woodland caribou herds.
- o provide opportunities for high-quality sport fishing.
- o be managed to maintain the representative flora and fauna of the Precambrian Shield and Manitoba Lowlands.
- o accommodate commercial use of resources where this does not lessen future recreational use or unduly compromise the Park's primary purposes.

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1.0 INTRODUCTION



Grass River Provincial Park, established in 1963, covers some 2,300 square kilometres of prime recreational land. It is one of Manitoba's northernmost provincial parks and lies 72 kilometres north of The Pas. The town of Cranberry Portage marks the western boundary of the Park, and Snow Lake lies just beyond its north-east corner (Key Map).

A rich storehouse of natural, recreational, and commercial resources, Grass River is regarded by many as Manitoba's finest natural, relatively undeveloped park. The Management Plan will act as a guide for the conservation, management, and development of the Park's resources for the use and enjoyment of Manitobans. The Plan sets down guidelines for managing the Park's resources, describes initiatives in recreational facilities and services, determines what activities may take place within the Park, and specifies where and under what conditions those activities will be permitted. In short, the Management Plan attempts to ensure the preservation of the natural environment, facilitate human use of recreational resources, and where compatible, provide for commercial resource development in Grass River Provincial Park.

The planning program commenced in the fall of 1981. An initial booklet, "Towards a Master Plan for Grass River Provincial Park", provided the public with a brief description of the Park, discussed major issues and concerns, and set down proposed planning objectives. These objectives were reviewed at public meetings, and were responded to through questionnaires and submissions. Some objectives were then revised as a result of the contributions of interested parties. The final statement of objectives guided the preparation of a Draft Management Plan in 1982. The publics' comments on the Draft Plan were received through written submissions and at drop-in sessions held in the region and in Winnipeg during January 1983. A record of these comments is provided in a report entitled "The Grass River Management Plan - Summary of Public Input and Revisions to the Draft Management Plan".

Changing circumstances will require that the Management Plan be further reviewed periodically since many factors will affect environmental conservation and the use of recreational and commercial resources. A general update of the Management Plan will be undertaken every 10 years.



2.0 SUMMARY

The following summary highlights several sections of the Management Plan. Existing and proposed facilities and zoning are illustrated in Map 1.

RESOURCE MANAGEMENT

- o Significant natural and cultural features are identified as Special Area Zones. Information about existing and potential Special Areas will be updated continuously.
- o Guidelines and standards are provided for the management of water and fish, key park resources. Major sport fishing waters are listed under four different categories which may require special management practises.
- o Habitat protection is central to wildlife management, particularly for caribou. A wildlife refuge corridor will be established along PR 391 as part of an intensive moose management program.

FACILITIES AND SERVICES

- o Upgrading of existing facilities and site expansion will be undertaken at the Gyles Campground.
- o A system of designated campsites will be introduced into backcountry areas.
- o Several interpretive trails and expanded park and regional information programs will be developed.
- o Improvements will be made to signing within and outside the Park. Opportunities will be investigated for improved visitor services to be developed in co-operation with commercial outlets within the Park, and the nearby communities of Cranberry Portage and Snow Lake.
- o Guidelines are provided for commercial recreation operations.

COMMERCIAL RESOURCE EXTRACTION

- o The Park's extraordinary geology and potential for expanded mining activity is recognized. Guidelines and standards relating to mining are provided.
- o A five-year forestry management plan to guide harvesting and reforestation will be a requirement.
- o Trapping will continue under current management practises.
- o A potential utility and access corridor is identified to serve future industrial (i.e. forestry and mining) needs north of the Grass River.

ZONING

o Four land-use zones are identified to guide management and use of the Park. The land use zones are: Special Areas, Developed Recreation Zones, General Recreation Zones and Commercial Resource/ Recreation Zones.





3.0 NATURAL RESOURCES

3.1 Physiography and Topography

One of the important physical features of Grass River Provincial Park is the visible division between Manitoba's two main physiographic regions: the Precambrian Shield and the Manitoba Lowland (Map 2). These two regions divide along an east-west line through First Cranberry Lake, along the northern limit of Simonhouse Lake, through the southern tip of Iskwasum Lake and Loucks Lake, and then northeast through Reed Lake. The interface between both regions can be most readily seen near Iskwasum Lake.

Elevations vary throughout the Park from 275 metres at the southeastern end to 320 metres at the northern end. The northern area, typical of the Shield, is a glacially scoured upland with rolling to hilly terrain and abundant rock outcrops. Some are in excess of 30 metres high, particularly along river channels and lake shores. The Manitoba Lowland region to the south is similarly scoured but has less relief, fewer rock outcrops, and more bogs.

Much of the underlying bedrock is covered by debris deposited by glaciation. This debris includes "eskers", "kames", and "drumlins" -- varying types of gravel deposits left by the movement and melting of glaciers. There is also at least one example of "crag-and-tail", a ridge of resistant bedrock with an elongate body of more erodable bedrock on the lee side (Map 2). These features add to the topographic diversity of the Park.

An interesting feature is the deposits of ice that can be seen in deep cracks of cliffs on the south side of Reed Lake, even in the heat of summer. Before electricity was available, local people used these "ice caves" as makeshift freezers to keep meat frozen year round.

3.2 Bedrock Geology

Bedrock of the Shield area is comprised of igneous, volcanic, metamorphic, and sedimentary rocks. These formations were once beneath the earth's crust, underlying an ancient mountain system. Glacial action eroded the mountains, flattening the landscape, leaving the underlying bedrock near the surface.

The Lowland section of the Park was once the floor of an ancient sea and consists of dolomitic limestone. For centuries, sediments were deposited on the sea bed and, under the pressure of their own weight, consolidated into limestone and shale rock. As the last glacier melted, Lake Agassiz was formed and covered much of the land in the Park. Northern outlets opened some 8000 years ago, draining the lake and leaving the land as we now know it.

3.3 Soils

Soils consist of both mineral and organic types. The mineral soils may be subdivided into morainal, glacio-lacustrine, and glacio-fluvial subtypes. Morainal soils are generally sandy having been deposited as fine glacial till. Glacio-lacustrine soils were formed by deposition in glacial Lake Agassiz and hence are clay-like in composition. The glacio-fluvial soils are sandy to gravelly, having been deposited as outwash from glacial streams.

Organic soils underlie bogs, fens, marsh, and peat plateaus. All have water tables at or near the surface and are composed of peat or other decayed organic material.

One of the Park's unique features is the presence of discontinous permafrost bogs within some of the organic soils. These are known as palsas. It is unusual to find palsas so far south. An outstanding example is the so-called palsa hazel to the east of PTH 10 (Map 2).

3.4 Water Quality and Hydrology

Probably the most important feature of the Park is its excellent water quality, the basis for Grass River's high quality sport fishing. The lakes and streams carry a low amount of suspended sediment since there are few man-made pollutants, and much of the water passes through or beneath peat deposits which act as natural filters.

The groundwater level is relatively high, particularly in the Manitoba Lowland portion of the Park. Of interest are groundwater discharge areas, such as the one near Iskwasum Lake on the north side of PR 391. It begins as an underground channel near Leak Lake, flows through limestone, under PR 391, and discharges as a small stream emptying into Iskwasum Lake. This feature has considerable interpretative value for visitors.

The only major watercourse, the Grass River, generally follows fractures in the underlying bedrock, is relatively shallow, and has rapids in some areas. It ultimately drains into the Nelson River more than 320 kilometres northeast of the Park.

Lakes in the Precambrian Shield portion of the Park are fairly deep and generally display irregular, rocky shorelines. Lakes in the Manitoba Lowland portion are characterized by their oblong to semi-rounded shape, relatively shallow depth, and smooth shoreline.



3.5 Fish

In addition to their difference in physical appearance, lakes in the Shield and Lowland areas differ in habitat quality for fish. Lakes in the Shield are oligotrophic, that is deep and relatively low in nutrients. Consequently, fish production in these areas is also low. Lakes in the Manitoba Lowland portion are underlain by sedimentary limestone deposits, causing them to be richer in nutrients and more abundant in fish. Thus the varying lake and aquatic habitat types that exist within this common drainage basin support varying fish species in varying concentrations. This diversity of species and populations gives rise to Grass River's reputation as a high quality sport fishing area (Map 3).

Northern pike, walleye, and whitefish are common throughout the Park's lakes. Simonhouse Lake is particularly noted for large pike, and Iskwasum, Elbow and Loucks lakes are highly regarded for their walleye. Lake trout, a much sought-after sport fish, are confined mainly to Reed Lake and Second Cranberry Lake. Cisco and yellow perch are found in many of the lakes, as are several species of coarse and forage fish.

Rainbow trout, the only non-native fish, have been stocked in Webster Lake and in Amphipod Lake. Webster has become very popular, thereby diverting some fishing pressure from other lakes.

In addition to the Grass River itself, numerous rocky streams are very important for walleye and white sucker spawning. For example, Butterfly Creek supports a significant white sucker run in spring. Lake trout and whitefish spawn on rocky shoals and reefs in the lakes, while pike use the numerous weedy bays.

3.6 Vegetation

All of Grass River Provincial Park is located within the Boreal Forest Region of Canada. About 25 percent of the almost 2300-square-kilometre Park is covered by lakes, rivers, and streams. Of the remaining land surface 58 percent is forest, 30 percent is wetland, and the remainder is bare or treed rock.

Black spruce is the dominant tree species, covering 55 percent of the forest, located generally in the upland Shield Region. Frequent and repeated fires in the uplands have contributed to the formation of jack pine stands which dominate in 18 percent of the forest. White spruce dominates in 10 percent, and hardwoods (aspen, poplar, birch) in 16 percent. The upland forests provide habitat for a variety of wildlife and a pleasing hiking environment especially on islands where trees have escaped fire and grown large. These forests are also sought after by the forest industry for commercial use.

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The Park's lowlands support considerably different vegetative communities than does the Shield. Most are wetland communities, that is bogs and fens. These organic landforms are underlain by peat, often up to several metres thick. Bogs develop where ground cover has no access to the nutrient-rich groundwater beneath it. As a result, the ground cover consists of a variety of sphagnum, feather moss, ericaceous heath shrubs, stunted black spruce, and tamarack.

One of the rare palsas is found about 9 kilometres south of Cranberry Portage and 100 metres east of Highway 10 (Map 2). It is a teardrop-shaped mound, one to three metres high, consisting mainly of peat and having a permafrost core. The palsa's plant cover varies from bare peat to black spruce and feather moss. A unique interpretive opportunity thus exists at or near the site, so long as the palsa's physical integrity is assured.

In contrast, fens develop where surface waters and vegetation maintain their contact with nutrient-rich groundwater. These sites are more productive and support a greater abundance of sedges, reeds, brown mosses, and shrubs. Trees are few or absent altogether.

"String fens" are among the most interesting of fen types found in the Park. They consist of treed and moss-covered parallel ridges separated by saturated hollows called "flarks". Most are found along the southern margin of the Park southwest of Leak Lake (Map 2). Some of the more accessible of these wetlands provide interpretive opportunities.

At least one rare species of vascular plant, a fern known as "smooth woodsia", has been collected near Leak Lake (Map 2). But at least ten other rare species have been recorded in similar habitats in the region. Since the Park has been relatively unexplored by botanists, it is likely, therefore, that several other rare species and/or unique habitats exist within its boundaries.



3.7 Wildlife

Grass River Provincial Park supports a wide diversity of wildlife. Some species, notably the woodland caribou, achieve special significance by virtue of their rare presence within the Provincial Park System, and their apparently successful co-existence with human activities. They are probably the only caribou in the province to be doing well despite a close association with man.



Available research indicates that the Park harbours two caribou herds (Map 4): one ranging an area curving through the Cranberry Lakes, Elbow Lake, Iskwasum Lake, and Loucks Lake; the other, around and to the south east of Reed Lake. The Reed Lake herd has two subgroups divided by the main open water body of the lake. Caribou apparently range throughout most of the Park, as well as beyond its boundaries. Indeed, the Grass River herds may be the only ones in the province utilizing and ranging over both the Shield and Lowlands and their associated biomes. Their numbers are not known, but it is estimated that at least several hundred animals inhabit the Park. Woodland caribou are mature coniferous forest dwellers that feed on lichen growth, especially in winter. Their preferred habitat is a mix of mature and immature forest in a semi-open condition. A newly-burned or clear-cut area destroys caribou range, as lichens are very slow to regenerate. It may take up to 40 or 50 years for caribou habitat to re-establish itself in these areas.

Important caribou calving habitat is found primarily on the islands of Reed Lake. Other probable calving areas are on islands of the Cranberry Lakes and of Simonhouse, Wedge, Elbow, Iskwasum, and Loucks Lakes (Map 4). Cows and calves tend to stay on the islands and adjacent shorelines throughout the summer. After the fall rut, the caribou may seek out and move to bog and lake wintering areas in the Cowan River drainage south of Reed Lake, in the Wedge Lake area, and in the Leak Lake area. Other wintering areas have been located to the south of the Park itself.

Many other wildlife species are representative of both upland and lowland regions. Moose are distributed throughout the Park and, like caribou, favour islands and shorelines for calving. Moose utilize a variety of habitats, from bogs, river courses and lakeshores to mature boreal and deciduous upland areas. They feed on succulent wetland plants and herbs in summer and primarily on woody stemmed shrubs in winter. Unlike caribou, moose make extensive use of burns and forest cutovers due to the regeneration of deciduous species.

The Park's wolves tend to congregate in packs and stay within a large home territory, such as the area north of Reed Lake used by the Reed Lake pack. Lone wolves and small groups, however, can be found anywhere.

Fox, coyote, and bear are distributed throughout the area. Beaver, muskrat, mink, weasel and otter can be seen in lakes and water courses, while marten, fisher, and wolverines may be found in wooded areas. Lynx are present but at a lower density. There have also been some recent sightings of cougar, an uncommon occurrence since Grass River is at the northern limit of their known range in Manitoba.

Waterfowl, birds of prey, and upland game are common. Fish eating birds frequent most of the lakes and waterways. Hundreds of loons, in particular, have been sighted on First Cranberry and Reed Lakes during fall staging periods. Colonial nesters, such as double crested cormorants and great blue herons, are found in the Park although no nesting sites have been reported.



Two gull-tern colonies on Reed Lake and one on Leak Lake have been reported. Such nesting colonies are very susceptible to human disturbance. No pelican colonies have been reported, but four roosting areas on Reed Lake are known (Map 3). The white pelican is considered a threatened species and is very sensitive to human interference.

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Two raptor species, the bald eagle and the great grey owl, are found in the Park, and their habitats are also regarded as very sensitive. There is a relatively large concentration of eagles considering the proximity of man.

In general, the abundance and variety of wildlife gives rise to some excellent potential for viewing, education, and hunting.

4.0 CULTURAL HERITAGE RESOURCES

4.1 Prehistory

The earliest inhabitants of the Grass River Park area are likely to have migrated into the area some 5000 years ago. These people were probably originally caribou hunters from the Northwest Territories. Over a period of about 2000 years, their descendants adapted to their new conditions and evolved a distinct culture known as "Shield Archaic". In some areas moose supplemented or replaced caribou as the principal meat source and smaller mammals, birds, and fish were also relied upon for food.

Around the time of Christ, pottery-making was introduced into the region and the "Woodland Period" began. The dominant woodland culture of the Grass River area is known as the "Clearwater Lake Phase", which is believed to be ancestral to the indigenous culture of the historic Cree.

Several archeological sites have been identified within and near the Park which provide a miniscule amount of information about the area's prehistory. Especially noteworthy are the petrographs, or rock paintings, located on the Grass River just east of the Park. No comprehensive survey has been done, however, and the area's prehistory is still mostly locked in the past. More intensive research survey, testing and excavation of sites is needed to reveal more of the area's history, and particularly that of the Grass River system.

4.2 Fur Trade Era

The Grass River system was part of one of the major routes between Hudson Bay and the interior of the Prairies. The first European known to have used Grass River was Joseph Smith who travelled the route downstream in 1763. Samuel Hearne used the Grass River to reach Cumberland House where he built the Hudson's Bay Company's first inland post in 1774. Twenty years later, David Thompson used the river on his famous exploration and trading expedition. Both explorers likely portaged between First Cranberry and Athapapuskow Lakes near present-day Cranberry Portage.

Two Hudson's Bay Company posts may have existed within the Park. Reed Lake House was established by Malchom Ross in 1794 and it is here that both Ross and David Thompson wintered that year. A competitor's post referred to by Thompson as "White's House", appears to have been located 1/4 mile from Woosey Creek on the northeast shore of Reed lake. There is evidence also that David Thompson built a fort on the Cranberry Lakes in 1804 and another on Reed Lake in 1805, both while he was in the employ of the North West Company. While there are no known locations for most heritage resources in the Park, any such finds will constitute an important new asset and educational opportunities.





SAMUEL HEARNE 1745-1792 E VINENT EXPLORER

4.3 Twentieth Century

With the decline of the fur trade in the 19th century, no major activities occurred in the area until the mining boom of the first part of the 20th century. This brought with it not only mineral exploration and extraction but transportation development in the form of railroads, lake transportation and the bush pilot.

Until the 1960's the area experienced little further development. When PR 391 was built along the base of the Grass River's chain of lakes, the tourist trade developed and spurred an accompanying need for recreation facilities. This demand, and the desire to preserve an important Manitoba landscape, led to the designation of Grass River Provincial Park in 1963.

5.0 PRESENT RECREATIONAL USE AND DEVELOPMENT

5.1 Recreational Facilities and Services

While Grass River Park is relatively undeveloped, a number of recreational accommodation facilities are provided to serve the needs of visitors. The Parks Branch operates three campgrounds: Gyles Campground on the south shore of Simonhouse Lake; Iskwasum Campground on the south shore of Iskwasum Lake; and Reed Lake Campground on the south shore of Reed Lake (Map 5).

Gyles is an unserviced campground with 20 sites. It lies within a jack pine forest through which most sites have a view of Simonhouse Lake. Gyles' popularity, especially with families, is mainly due to its natural sand beach and access to quality fishing. A selective tree removal and land-scaping program has been underway to help regenerate the forest for aesthetic purposes and to provide an improved buffer to the camping area.



Iskwasum Campground, consisting of 40 sites, is particularly popular with fishermen in spring and fall, and with families during July and August. As the campground is located along the Grass River Canoe Route, canoeists also make moderate use of the site. Due to heavy camping pressure resulting in site deterioration, sites have been rotated over a four-year period while a rehabilitation and upgrading program was initiated. Over this period, natural regeneration took place, wind-susceptible trees were removed, and young white spruce were transplanted throughout much of the area. Reed Lake Campground, with 62 unserviced sites, is the largest campground. It is very popular with fishermen and is near two lodges on Reed Lake.

Expansion at all three campgrounds in the mid-70's helped to alleviate earlier overcrowding. In addition to the three publicly-operated campgrounds, Grass River Lodge developed a 10-site private campground on Reed Lake. Thus there are 132 sites in total at the four locations. A summary of available facilities at all campgrounds is provided in Table 1.



TABLE 1: FACILITIES AVAILABLE AT CAMPGROUNDS IN GRASS RIVER PROVINCIAL PARK

User statistics show that in the period 1976 to 1980 Reed Lake and Iskwasum campgrounds have experienced the most demand. Average peak occupancy rates of about 85% during June coincide with the high point of the sport fishing season. Reed Lake campground is particularly popular with American fishermen in this month, when they have often outnumbered Canadians by two to one. Gyles Campground has had an average peak occupancy rate of about 50% during July, over this period.

The leasing of land for commercial lodges and other concessions in Grass River Provincial Park evolved over the years. Now, the Provincial Park Lands Act and Regulations contain specific provisions on leasing, siting and regulation of commercial services in the Park System.



Four privately owned lodges currently operate within the Park: Ashdown's Camp and Elbow Lake Lodge located on Elbow Lake; and Grass River Lodge and Peterson's Reed Lake Lodge located on Reed Lake. These lodges offer a total of 23 house-keeping units. Caribou Lodge and Viking Lodge both operate immediately outside the Park at Cranberry Portage. Together they provide 36 house-keeping units, for a unit total in and adjacent to the Park of 59. Table 2 lists the types of facilities available at the lodges. Much of the clientele is non-resident.

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Grass River Lodge (Reed Lake)	10	•		•	•	•		•	•	•		•	•	•	•	•	•	F	•	Hwy.	May 15 - Oct. 15
Peterson's Reed Lake Lodge (Reed Lake)	4	•		•	•			•		•	•	•	•		•		•			Boat	June - Oct. 15
Garihou Lodge* (Cranberrv Portage)	11	•		•	•	•	•	•	•	•	•	•	•	•	•		•	F	•	Hwy.	May - Ocr.
Viking Lodge** (Cranberry Portage)	25	•	•			•	•	•	•		•	•	•	•	•	•	•	H	•	Hwy.	May - Oct.

^{*} Also has Gocktail Lounge, Convention or Ranquet Facilities, and fly-out service ** Also allows pets and has fly-out service

TABLE 2: FACILITIES AVAILABLE AT LODGES WITHIN GRASS RIVER PROVINCIAL PARK

There is also a privately-operated Bible camp near Gyles Campground. The only other commercial concession has been a riding stable near the junction of Highway #10 and the Simonhouse Road.

There are no cottage developments and none are planned. There are, however, 10 cottages just ouside the Park at Cranberry Portage and over 500 more located around Snow Lake, Cranberry Portage, and Flin Flon. In addition to the previously described facilities, visitor accommodation is available in and near Cranberry Portage and Snow Lake. Seventyfive lodge and motel units are available in the Cranberry Portage area divided between six lodges on Lake Athapapuskow, one lodge on Payuk Lake, and two motels in the town. One campground is situated in Cranberry Portage and another at Bakers Narrows, both on the shore of Lake Athapapuskow.

Snow Lake has two motels and a lodge with a total of 32 units. One campground is located at Wekusko Falls.

5.2 Recreational Activities

The main recreational attractions of Grass River Provincial Park are its quality fishing, hunting, and backcountry canoeing experiences.

As lakes have been relatively undisturbed by man, excellent sport fishing opportunities abound. Grass River has a reputation that attracts anglers from across the continent.

Angling pressure is concentrated on the road accessible lakes such as Reed, Iskwasum, Simonhouse, and First Cranberry. The water access site on First Cranberry Lake is the focal point for extensive use by Cranberry Portage residents and other visitors. Other major sport fishing lakes accessible by boat or aircraft include Second and Third Cranberry, Loucks, Elbow, Halfway, Krug, and Jackfish Lakes.

Moose hunting is a popular recreational activity, however, overall hunter success rates in and around Grass River over recent years have been below the provincial average. Up to 25 caribou hunting licences have been issued annually on a draw basis. Native people also hunt caribou and moose extensively for food.

The 725-kilometre long Grass River Canoe Route (Map 5) traverses the entire length of the Park, beginning at First Cranberry and continuing through to Second and Third Cranberry Lakes, Elbow Lake, Grass River, and Reed Lake. That portion is approximately 130 kilometres. Canoeists encounter scenic areas varying from swift-moving rapids to slowly meandering channels through marshlands. Fishing, remote camping, photography, and swimming are the main activities enjoyed by canoeists on the Grass River.

There is relatively little hiking, cross country sking, and snowmobiling and no officially designated trails.

GRASS RIVER CANOE ROUTE



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SUNUL HEARNE 1745-1792 EMINENT EXPLORER

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6.0 INFRASTRUCTURE AND OPERATIONS
There is relatively little infrastructure within the Park (Map 5). Provincial Trunk Highway 10 runs along the western boundary, connecting The Pas and Cranberry Portage. Provincial Road 391 extends east from PTH 10 along the Park's southern boundary. A Canadian National Railway line runs from Snow Lake to Flin Flon through the northern part of the Park.

A 230 kV hydro-electric transmission line east of PTH 10 from The Pas to Cranberry Portage has recently been constructed.

There are no telephone lines. A microwave relay tower is situated approximately nine kilometres west of Reed Lake adjacent to PR 391.

A fire tower near Loucks Lake is no longer in use except occasionally in emergencies. Fire detection and suppression operations are normally undertaken by aircraft based in The Pas.

Campground water supplies are obtained from wells which are either drilled or dug. The four lodges use lake water.

There are three solid waste disposal grounds: one at Kilometre 24 on PR 391 just east of Gyles Campground, one at Kilometre 35 near the Iskwasum Lake Campground; and one at Kilometre 74 near the Reed Lake Campground. These are available only for solid wastes. No trailer waste stations currently exist in the Park.

7.0 COMMERCIAL RESOURCE USE

7.1 Forestry

Forestry operations have been ongoing in the Park for many years, primarily along the western and southern boundaries. The expansion of logging activities into interior areas has accompanied the construction of all-weather roads by Manitoba Forestry Resources (Manfor).

Manfor has not operated in Grass River since 1980, although previous to this time, the company's logging operations dated back to 1968. Up to five independent operators have also conducted timber harvesting operations. At present there are three active timber sale areas in the Park.

7.2 Mining

Grass River Provincial Park is part of the highest potential copper-zinc-gold-silver districts in Manitoba, and one of the best in Canada. Mineral exploration in the area began in the early 1900's and was spurred by the construction of the railway to Flin Flon. Gold was initially the object of most exploration but base metals, such as copper, zinc, and nickel, have also been discovered.





By the 1930's two gold mines, Gurney and Century, were established within the present park boundaries (Map 6). When the Gurney mine shut down in 1939, it had milled 90,500 tonnes of ore which produced 714 kilograms of gold and 2031 kilograms of silver. The Century mine, on the other hand, never produced more than one bar of gold, 1.7 kilograms, before closing in 1942. Other gold occurences are known, mainly in the Cranberry Lakes - Elbow Lake area, but production has not been economical to date. The only current mining operation is the Spruce Point copper mine on the shore of Reed Lake (Map 6).

Available data on mineral shows indicate that there will continue to be extensive exploration and interest in future mine development.

7.3 Commercial Fishing

Commercial fishing is very limited and restricted to small operations. Four lakes are currently fished commercially during the winter: Election (with a special fall season as well), Wedge, Brunne, and Otaskewetawin (Map 6). The quota on both Election and Wedge Lakes allows 2300 kilograms of pickerel, pike, and whitefish. The quota for the combined Brunne-Otaskewetawin fishery is 4600 kilograms of the same species, of which not more than 460 kilograms may be pike and pickerel. Some tullibee are harvested on the four lakes for which no quota is applied.

Other lakes have had commercial fishing activity in previous years. B.C. Lake has a quota of 2300 kilograms of pike, pickerel, and whitefish, but has not been fished since the winter of 1970-71. Reed, Simonhouse, Iskwasum, Anvil, and Cranberry Lakes have also been commercially fished in the past. Their quotas have been removed so that no commercial fishing is allowed at this time.

7.4 Trapping

Grass River Provincial Park has a moderately high capability for fur production. At the present time there are 12 registered traplines (RTL's) (Map 6). Beaver, muskrat, lynx, otter, ermine, fisher, mink, and fox are the commercially important fur bearing species. Timber wolf, coyote, and wolverine are also trapped. A total of eighteen people used the RTL's in the 1979-80 season.

7.5 Aggregate Removal

Three dolomitic limestone and/or dolomite quarries, and several gravel pits, are located in the Park (Map 6). Use is made of them only from time to time when crushed rock is needed for road work. The quantity of sand and gravel at each pit varies, but none is a large, continuously used source.



8.0 NATURAL AND CULTURAL RESOURCE MANAGEMENT

Management guidelines and procedures are intended to protect natural and cultural resources and provide for their use and enjoyment. Proper management requires useful information; scientific research, detailed documentation, and monitoring of significant and sensitive features will, therefore, be an ongoing process. This information, and up-to-date management guidelines, will be used in the review of all permit applications respecting the use and harvesting of commercial resources.

8.1 Water

Maintenance of the quality of lakes and watercourses is among the highest management priorities. As this headwaters region is essential to the well-being of fish, wildlife, and the maintenance of recreational opportunities both within the Park and in the watershed beyond, activities which could result in degradation of the existing water quality will be carefully regulated. Particular care needs to be exercised in this area, since many lakes would be adversely affected by such eutrophic agents as phosphorus and nitrogen. Moreover, influxes of heavy metals, leachates, chemicals, and other hazardous substances directly into waterbodies would endanger aquatic organisms and fish.

Recognition of the Park's high quality water, and of the need to protect and maintain it, is given in the 1977 "Report on a Proposal for the Classification of Manitoba's Surface Water: Grass-Burntwood Rivers Principal Watershed Division", by the Manitoba Clean Environment Commission. The Commission recommends a "nondegradation" classification for the upper portions of the Grass River. This classification is intended to indicate the need in this ecologically sensitive area for a very high degree of pollution control and will require a high standard of planning and measures to control pollution on the part of any potential developers and regulatory agencies.

Consequently, the following guidelines will be applied to waterbodies within Grass River Provincial Park:

1) No direct, untreated discharge of mining waste waters and of industrial, commercial or recreational effluents into any waterbody will be permitted.

2) All effluent water treatment and disposal systems must be approved prior to installation.

3) All applicable Provincial regulations and guidelines, such as those relating to forestry, mining, road building, stream crossings, and development, that are designed to protect water quality and the aquatic environment will be strictly adhered to.



4) No water level controls or projects designed to alter natural fluctuations will be undertaken.

8.2 Fish

The objectives of fisheries management are to maintain and enhance opportunities for sport fishing, and to provide a diversity of sport fishing experiences. In general, this will involve protection of fish habitat, managing significant stocks, and/or rehabilitating fish resources.

Habitat protection has two main aspects. First, water quality must be protected from the effects of foreign pollutants, such as chemicals and thermal change. Second, feeding, spawning and nursery areas must be protected from degradation, due to road construction, siltation, bank erosion and runoff.

In Grass River Park, the activities which pose the largest potential threats to fish habitat are shoreline developments, road construction, forestry and mining operations, and the use of chemicals. For this reason, strict adherence to conditions attached to commercial resource harvesting permits will be required. These conditions relate to the prohibition of chemicals near any water body, retention of vegetative buffers along shorelines, and prohibition of untreated discharge waters. The provisions of the Clean Environment Act, the Manitoba Stream Crossing Guidelines, recommended forestry cutting guidelines, and other relevant provincial acts and regulations will be strictly enforced.

The Stream Crossing Guidelines, for instance, apply to all road construction. In Grass River, the use of culverts will only be considered for small intermittent streams. All other stream and river crossings will require bridges. Constrictions at crossings will not be allowed.

Fish populations will be maintained through a number of management techniques. Fish management strategies that are used throughout Manitoba are applicable in Grass River Provincial Park. These include creel limits, size limits, season closures or possibly gear restrictions. Any combination of these techniques could be applied to any lake dependent on the specific situation.

Over and above these measures, greater restrictions or more intensive fisheries management programs could be applied to ensure the maintenance of fish stocks. One technique is limiting development on or access to certain lakes. The use of live bait will be prohibited to avoid the possible introduction of exotic species.

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Lakes and their associated sport fisheries fall into four basic categories: <u>remote</u>, <u>general</u>, <u>special</u>, and <u>stocked</u> (Map 7). Remote lakes are those with no all-weather access but with significant fish populations. Access to these lakes is by plane, relatively long boat or canoe trip, or hiking. Examples of remote lakes are Claw, Elbow and Barb.

General sport fisheries are in road-accessible lakes that presently support average levels of sport fishing by the general public. Lakes in this category include the Cranberries, Iskwasum, and Loucks Lakes. As the Cranberries have exhibited a deteriorating fishery in recent years, more intensive fisheries management procedures should be applied to reinstate its potential capability. Its fish populations could be enhanced, for example, by using walleye rearing techniques and releasing fingerlings.

Certain lakes are categorized as special sport fisheries. They provide excellent opportunities to catch large fish, large quantities of fish, or a wide variety of species. These lakes provide sport fishing opportunities that are not generally available elsewhere within the Provincial Park System and are, therefore, singled out for special management practices. Special management practices could include the establishment of lakespecific regulations such as reduced limits and seasons, and closure of certain portions of a water body to sport fishing.

Within Grass River Park, Reed and Simonhouse Lakes are considered special sport fisheries. Reed Lake provides one of the best angling opportunities for large lake trout and northern pike. There are concerns, however, that the stocks of these species are being overharvested. Special measures have been instituted to ensure the maintenance of its fish populations.

The last category are lakes stocked with exotic fish, such as rainbow trout. These lakes provide a different type of angling opportunity not available elsewhere in Grass River. Annual stocking is required to maintain these fisheries. Presently only two lakes are in this category: Webster and Amphipod. Potential exists to develop other stocked lakes in the future.

8.3 Vegetation

Management of vegetation in Grass River Provincial Park will focus on protecting significant flora and representative plant communities, maintaining critical wildlife and fish habitat, improving vegetation at recreational sites and along access routes, and protecting and regenerating commercial forest resources.



Representative examples of the major floral communities will be managed to ensure their continued integrity and variety. Especially in the readily accessible upland-lowland transition area, preservation of representative vegetation types, such as bogs, fens and pine forests, will be emphasized. These features present valuable interpretation opportunities.

Significant and/or rare species of plants, and significant biophysical features, such as the palsa hazel, will be protected from human interference. Additional rare species as located will be similarly protected.

Critical wildlife and fish habitat will be maintained by prohibiting or restricting commercial forestry from those areas. This is especially required in the Reed Lake area to protect the area's caribou herd and sport fishery, and generally along the Grass River waterway system. Typical wildlife habitat will be protected and enhanced by requiring proper forest management practices of all commercial operators.

Selective vegetation removal and replanting will be continued in and around specific recreational facility sites, such as campgrounds and waysides, and along major highways and access roads. Detailed cutting and regeneration plans will be directed toward visual and aesthetic improvements, quick regrowth of previous clearcuts, public safety, and sustained health of the vegetation.

The extensive merchantable forest resource will be managed both to exploit its commercial value and to ensure its future regeneration consistent with other park objectives (see Section 13).

8.4 Wildlife

Wildlife management will focus on those species which are significant, representative, or endangered; have recreational, consumptive or commercial value; and are particularly sensitive to disturbance. The two major aspects of management will be protection of critical habitats and the maintenance or enhancement of wildlife populations for viewing and educational benefits, high quality sport hunting and trapping.

The Park's representative wildlife offers excellent opportunities for viewing and some interesting possibilities for interpretive displays or educational programs. Consequently, their habitats will be protected in accordance with the best management practices, and special considerations will be given to certain designated sites. For example, interpretive trails and programs may be set up to view beaver or otter at specific sites. Other measures to enhance wildlife interpretation such as the establishment of viewing towers at strategic locations will be considered. In general, an important part of the wildlife management approach will be to provide education to the visiting public on animals and their habitats (see Section 10 for more details on interpretation).

With respect to sensitive, rare or endangered species, strict protective measures will be implemented as feasible. The four pelican roosting areas and two gull-tern colonies on Reed Lake, for example, cannot tolerate excessive disturbance. They will be protected by preventing access to nesting areas during critical periods. The same restrictions of access could apply to nesting sites of raptors such as bald eagles and great grey owls.

The most significant of Grass River's wildlife resources are the two woodland caribou herds. Special land-use regulations and management practices are required to adequately preserve these animals.

There are numerous known caribou calving islands in the Park. Caribou calving success is related to the preservation of these island and adjacent shoreline habitats and the protection of cows from disturbance during the calving season. Reed Lake includes especially important calving areas, while Wedge, Elbow, the Cranberry lakes, the north end of Simonhouse, and Iskwasum lakes also provide suitable calving sites.



The mature upland forests associated with shoreline habitats, such as at Wedge Lake, are considered to be important caribou wintering habitat. Since lichens are a main food source, caribou also require access to forest stands in older boggy areas where lichen growth is unusually heavy. These boggy areas, for example, south of Iskwasum and Reed Lakes, are abundant throughout the Park and do not generally produce merchantable timber. Caribou also use the inter-connecting lake systems in winter for travel between feeding areas when snow depths in the woods make travel very difficult. Thus, this combined ecosystem, required for the healthy maintenance of Grass River's caribou herds, must be preserved and protected from major disturbance.

Moose are another significant wildlife species. An important factor in sustaining and enhancing moose populations is the soundness and sensitivity of habitat management practices. The size and configuration of cutovers for example, can markedly improve existing conditions for moose. Planned logging operations will be reviewed as a general practice to develop recommendations for enhancing wildlife habitat.



Wolves, also, are an important part of the Park's diverse wildlife, and will be the subject of interpretive programs. If the need for control measures is clearly demonstrated to maintain a balance among wolves, moose and caribou, trapping will be the preferred management method. Any control measures would be developed consistent with the Department's predator control policy.

High-quality hunting is a prime objective of moose management as these animals are most favoured by recreational and subsistence (Treaty Indian) hunters. Caribou are hunted for subsistence, and to a very limited extent, for recreational purposes. The following measures, in addition to habitat protection and management, will be taken to ensure the continued viability and enhancement of caribou and moose.

- o Detailed species management plans will be prepared to set long-term management direction. Such plans will consider all aspects of population dynamics, an assessment of habitat conditions, harvest options, additional study requirements, and public information and interpretation programs, for example. Species plans will be updated annually.
- o Moose will be given priority in species management planning. An immediate step to aid in replenishing moose will be the establishment of a corridor refuge along PR 391. This refuge will serve a further purpose of protecting woodland caribou and improving wild-life viewing opportunities.
- o The Grass River caribou herds appear to be capable of sustaining limited harvest. Should there be a decline in caribou numbers, controls on all forms of harvesting would be implemented.

8.5 Heritage Resources

The significance of the human heritage of Grass River Provincial Park has been partially documented. While the full extent and value of heritage resources in the area are not known, historic sites may potentially be found along the Grass River and its lake chain.

Proposals for land development and resource harvesting will be routinely submitted to the Historic Resources Branch. In this way, a heritage resource or archaeological evaluation may be undertaken if deemed necessary, and artifacts may be recovered, prior to site development. Whenever possible, developmental activities will be monitored to further identify and ensure protection of archaeological resources.

Parks Branch will also cooperate with local councils and organizations prepared to take viable initiatives in developing historical information and heritage sites in the area.

8.6 Scientific Research

Requests are received from time to time to allow researchers to conduct scientific investigations in the Park. Examples in the recent past have been project requests on caribou and birds of the boreal forest.

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

- Removal of specimens and artifacts will be only by permission of the Director of Parks.
- 2) Upon completion of any study, a copy of data and reports will be filed with the Director of Parks.
- Collection of any species recognized as threatened or endangered will not be permitted.

With special reference to caribou, useful research has been conducted previously, mostly in tracking the animals' movements, by radio collaring, and tagging. But considerably more data are needed to establish the extent of the herds' critical ranges, their migration and road crossing patterns, their tolerance to harvesting activities and cutting practices, their ability to sustain themselves over long periods of time while cutover areas slowly regenerate, and their basic biology and population dynamics.

Projects will be encouraged which will be directed toward the key issue of the extent to which human-animal interaction, in particular vehicle movements and commercial forestry operations, can take place while not endangering the survival and prosperity of these herds. In other words, why has the caribou's relationship with human activity been successful thus far, and what is required to ensure the maintenance of this successful relationship? Thus, applied scientific research is seen as a necessary complement to the proper management of this important park resource.



9.0 RECREATIONAL FACILITIES AND SERVICES

Recreational facilities and services are established to provide the visiting public with the means to obtain recreational and educational enjoyment from the Park's natural resources. Facilities and services include:

- campgrounds,
 trails,
 the Grass River Canoe Route,
 commercial lodges offering fishing and hunting packages,
 interpretive displays and programs,
 maps and brochures,
 general park information, and
- o signs.

9.1 Campgrounds

The emphasis on campgrounds in Grass River is improvement of facilities and services, limited future expansion at existing campgrounds, and encouragement to lodge operators to provide camping opportunities and modern services.

Reed Lake Campground will receive upgraded sanitary facilities and improved services at such time as power to the site is available. Potential improvements include road upgrading, increasing the size of individual camping sites, introducing a beach area at one of the present boat launch sites, changing the traffic flow of the entrance road system, and providing electrical sites. At such time as it is feasible to provide electricity at Reed Lake Campground, a plan for site development shall be prepared before installation. It shall include pole and line layout, location of buildings and areas to be electrified, yard light locations, provision of new pump houses, and a dump station. Any trailer dump station designed and developed at Reed Lake prior to electrification will have the capability for conversion to electric operation.

Upgrading of existing facilities and site expansion will be undertaken at the Gyles Campground. Site redevelopment will provide improved boat launching facilities and the addition of approximately 15 to 25 new camping sites. These new facilities which are in addition to the present 24 camping sites will be designed to provide waterfront viewing to the extent possible. Facilities and services provided at this campground will continue to be of the non-modern type.

There are no plans to increase the capacity of the Iskwasum Campground. Indeed any future campground expansion beyond that of Gyles Campground would be proposed only after due consideration for the capability of the associated fishery to sustain increased users, and by specific site conditions. Efforts will be made to divert future camping demand to lodge operations should they develop suitable sites for transient campers, and to campgrounds outside the Park, such as at Cranberry Portage and Bakers Narrows. Should the need for additional camping facilities be clearly demonstrated in the future alternative locations outside the Park will be sought in consultation with local communities.

Regular park maintenance and landscaping programs will be continued at all campgrounds. To ensure the long-term health and vigour of vegetation in developed sites a variety of techniques are available, such as selected tree removal; developing surfaced walkways for pedestrian traffic; planting, fertilization, and cutting to promote sucker growth; and campground closure for limited periods.

The Gyles Campground, for example, contains mature timber which could be harvested. Under ordinary harvesting conditions, clearcut operations conflict with recreational use of an area by removing tree cover. To protect the aesthetic value of Gyles, and any developed recreational site, timber harvesting will be governed by a specific selective cutting plan. This plan will require such measures as adequate treed buffers, fall or winter cutting only, controlled access, staged cutting, and revegetation programs, including the planting of large nursery stock and seedlings.

Good opportunities exist in and around the three campgrounds to provide visitors with a variety of experiences and with information to increase their appreciation of the Park's features. This information will take various forms: interpretation of significant and representative features, education on natural and cultural history, information on commercial resource activities, and orientation to the facilities and services available in and around the Park. A number of scenic and/or interpretive sites will be developed in association with some other special features. These sites will be accessible by road and, in some cases, linked to hiking trails from nearby campgrounds.

New site and self-guided trail developments (Map 8) will be:

1) Reed Lake Display and Trail - An information and interpretation display will be developed at the Reed Lake Campground to enhance visitor appreciation of the area's special natural resources, notably the caribou, moose, wolves, white pelicans, gulls and terns, lake trout and the area's ice caves. Since the Reed Lake area combines the values of significant, representative, and endangered wildlife, and of a special lake fishery, an excellent opportunity exists to explain these features to campers, lodge guests, mine employees, forestry operators, and the travelling public. The life history of the lake trout, fisheries management practices, the caribou's life-cycle, calving behaviour, and movements, as well as the interaction with wolves and man, are examples of topics for the display. Consideration could also be given to development of guided caribou observation excursions, especially for winter viewing.



2) <u>Iskwasum Campground - Solution Channel Trails</u> - A hiking/interpretive trail will be constructed from the Iskwasum Lake Campground to the Leak Lake Solution Channel. This will connect to an interpretive trail to the pull-off along PR 391 (see point 7 below). The trail would be developed with a geological/biological interpretation theme focusing on the visible contact between the Shield and Lowland regions. Investigations will also examine the possibilities of establishing potential sites for viewing representative wildlife, such as otters, in the Iskwasum area. Development of trails and sites will be in stages so that the extent of demand may be gauged.

3) <u>Gyles Campground Trail</u> - A hiking/interpretative trail will be developed through the site's jack pine forest. Representative flora and forest ecology would be the main themes here.

4) <u>First Cranberry Water Access</u> - An improved boat launch site will be developed on the west shore of First Cranberry Lake just east of PTH 10. The existing site and its appearance requires substantial upgrading and possible relocation, in which case a detailed future development plan will be prepared. Such development will consider the requirements for future campground capacity, local commercial opportunities, and an historic site and display. This plan would be prepared in consultation with the community officials and residents of Cranberry Portage.

5) <u>The Palsa Hazel</u> - A small highway pull-off will be constructed at this site on PTH 10. An interpretive display will be installed at the site and an observation point if feasible. To protect this sensitive feature, however, a trail to the actual palsa location will not be constructed.

6) <u>Webster Lake</u> - Improved day-use facilities will be provided at Webster Lake. Road access will be moved farther east than at present, and a parking lot developed 50 to 100 yards back of the lake. All other existing roads will be scarified and planted. A dock will also be constructed.

7) Leak lake - Iskwasum Lake Solution Channel - A pull-off from PR 391 will be developed and the existing trail to Leak Lake will be upgraded to road status. An interpretive trail will trace the route of the channel to its outflow at Iskwasum Lake. The interpretive trail will be connected to the hiking/interpretive trail from Iskwasum Campground, which will focus on the geology and biology of the two physiographic regions.

8) <u>Butterfly Creek</u> - A fish viewing station will be developed along PR 391 to interpret the white sucker run which occurs in spring. This site may be linked to the Gyles Campground trail.

9.2 Canoe Route

The Grass River Canoe Route will be maintained in its present natural state. Management of recreational use of the route is a requirement, however. A program of designated sites for shore lunches and camping will be implemented over the next several years. A small descriptive route booklet will be prepared, and improved garbage cleanup will be instituted (see Section 12), to complement the designated site program. Pack-in, pack-out backcountry camping practices will be promoted.

9.3 Commercial Recreation Facilities

The current number of commercial lodges will be kept at four. They will be required to maintain generally high standards in their facilities and services. They will also be invited to make available modern services to campers and other transient users, as well as lodge guests, and to provide additional camping sites as needed.

Boat, motor and fuel caches may be established on certain lakes. Priority for the priviledge of establishing caches will be given to lodges currently operating in Grass River. Fixed-roof outcamps will not be permitted in order to maintain remoteness of interior lakes.

While expansion of existing commercial operations is neither anticipated nor proposed, such development in the future may be permitted providing that:

- o the demand for such expansion is clearly demonstrated;
- o the associated fishery and other resource bases can support the increased use likely to be generated by the proposed expansion;
- the proposed development is judged to be desirable and compatible with existing park use and development, and with site conditions; and
- o the proposed venture is shown to be potentially viable.

In general, however, commercial development will be encouraged outside the Park in the Cranberry Portage or Snow Lake areas. Three basic types of assistance could be provided to enhance the quality and viability of commercial recreational operations in and adjacent to Grass River Park. Specifically: 1) Promotional assistance may be offered to local commercial operators, both within and outside the Park. This could include information on existing and future opportunities in and around the Park, advertising of existing commercial operations, and promotion of new recreational packages that may be jointly developed by the operators. These might include multiple lodge packages, wildlife viewing tours, and canoe trips.

2) Should there be interest expressed by commercial operators prepared to serve an identifiable market, winter use will be considered.

3) In undertaking park site improvements, consideration will be given to joint-use facilities and services of benefit to both park facilities and commercial lodges. These might include parking, landscaping, electricity, and waste disposal.

9.4 Park and Regional Information

Several methods will be employed to inform park visitors and Manitoba residents generally about the features, opportunities, and services available in Grass River Park. These include:

1) <u>Grass River Park Booklet</u> - Because Grass River Park is relatively unknown among Manitobans, the need appears to exist for an attractive, informative booklet on its beauty, natural resources, and recreational opportunities. This booklet would be distributed throughout the province, at park and regional information centres, and in other provincial parks. Increased knowledge and use of the Park is the intended result.

2) <u>Cranberry Portage-Snow Lake Information Dissemination</u> - Information about facilities and services available in the Park and in the two gateway communities will be distributed in a wide variety of outlets in the towns of Cranberry Portage and Snow Lake. Discussions are being held, at present, with local officials to examine the possibility of establishing a tourist information centre in Cranberry Portage.

3) <u>Park Orientation Display</u> - An all-weather sign, including a park map and descriptive text will be constructed at the junction of PTH 10 and PR 391 (Map 8). The location and experiences available at all campgrounds, lodges and other facilities and features will be identified and described. Facilities and services available outside the Park will also be identified.

Signs will also be provided along major highways servicing the eastern side of the Park. Improved signage to properly point visitors to Grass River is required along PTH 6 and PR 391, particularly in the vicinity of the Snow Lake junction.

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10.0 INFRASTRUCTURE

As a general principle, major linear projects and infrastructure corridors are to be located wherever possible outside the Park's boundaries. Three proposals for future development have been made, however. They are: a hydroelectric transmission line to the Spruce Point Mine on Reed Lake; a forestry access road and bridge across the Grass River; and a 230 kv transmission line between Flin Flon and Snow Lake. The first two projects, if approved, would be required to be located within a single least-impact utility and access corridor, with tie-ins to existing infrastructure corridors or rights-of-way as needed. Future environmental and routing studies would indicate whether or not the third project would encroach upon the Park.

The preferred corridor location for the transmission line to Spruce Point and forestry road across the Grass River is in the area between Loucks and Reed Lakes. In this way, the Grass River would be crossed at only one location and right-of-way clearing would be coordinated for both purposes north of the river. Internal forestry roads to cutting areas will interconnect with this main access road at appropriate distances. The Spruce Point transmission line would intercept PR 391 and follow it east to the mine.

In this way, no disturbance of the Reed Lake environment will take place, and disturbance of the Grass River and area to the north will be minimized. All proposals and applications for development permits for these projects will be referred to the Manitoba Environmental Assessment and Review Agency for a detailed evaluation. Specific terms and conditions dealing with environmental protection, visual buffering, and other matters will be attached to approvals.



11.0 OPERATIONS

Park operations include those activities and procedures required for the administration, servicing, and programming of Manitoba parklands.

The Administrative Headquarters for Grass River Provincial Park are at The Pas. Primary responsibility for the operation and maintenance of the three transient campgrounds and other public-use facilities rests with district staff at Cranberry Portage.

11.1 Occupancy

Permanent and seasonal occupancy will only be permitted in specific circumstances. Current employees of the Crown or current operators of concessions within the Park will be granted approval. They will be subject to such conditions or requirements as are outlined in The Provincial Park Lands Act and Regulations.

Certain employees of industrial companies operating in the Park, such as mine security staff and sawmill workers, may also be granted permission for seasonal or conditional residency.

Trappers holding registered traplines are allowed one main residence on each line, subject to conditions established by permit. Existing practice is that, in the event of a trapline being vacated, ownership of existing cabins reverts to the Crown if not transferred to an operating trapper within one year.

11.2 Refuse

Refuse collection at campgrounds is the responsibility of the Parks Branch. Commercial and industrial operators are responsible for their own refuse collection and disposal at approved dumps.

Garbage along the Grass River Canoe Route is the aspect most disliked by users. An improved maintenance program will be initiated, therefore, to clean up the Route periodically as required. As a means of reinstating its aesthetic quality on a more permanent basis, route literature and maps will reinforce the message that canoeists and boaters are expected to take their garbage out of the area with them.

11.3 Sewage

A trailer dump station will be constructed near the Reed Lake Campground. In addition, the need for and location of a sewage lagoon south of PR 391 between Reed and Iskwasum Lakes will be investigated.

11.4 Roads

The Department of Highways and Transportation is responsible for maintenance of PTH 10 and PR 391. All campground roads are maintained by the Parks Branch. The development of forestry or mining roads will be governed by the permit operating conditions respecting the use and abandonment of those roads. New forestry roads will be closed to all vehicles other than those authorized for use by timber operators, unless these roads are planned for recreational purposes. In addition, borrow pits and service areas, such as trailer dump stations and garbage dumps, will be screened from roads by design techniques and buffers planted with native species. Conversely, where scenic visibility is desired, selective clearing or pruning may be undertaken along roadsides.

11.5 Signage

A complete review will be undertaken of all signage -- along highways, access roads, and internal campground roads. In accordance with a uniform park standard and design, an improved signage program will then be implemented. This program will apply to all signs orienting visitors to both public and private facilities. In addition, particular attention will be paid to interpretive signage and displays.

11.6 Chemicals

In general, use of chemicals, chemical sprays, and pesticides will be prohibited. Only if and when a clear and present danger to public health or significant park resources is demonstrated will their use be considered. In such cases, all relevant provincial acts and regulations, and all Clean Environment Commission or special permit conditions, will be strictly enforced. Under no circumstances will the application of chemicals, chemical sprays or pesticides be permitted if they may endanger the public or significant park features.

12.0 COMMERCIAL RESOURCE MANAGEMENT

12.1 Permit Process

Control over commercial use and harvesting of resources within Provincial Parks is achieved in part through a permitting process. All proponents will be required to submit detailed descriptions of projects and specific operations. Terms and conditions will be applied to all park permits issued to ensure that:

- o critical fish and wildlife habitats and cultural resources are not impaired;
- o existing or planned patterns of recreational use are not interfered with; and
- o designated potential recreational resources are not irreparably damaged.

Permit terms and conditions will authorize and regulate:

- o the location, nature, scale, and methods of the proposed activity, such as forestry cutting areas, mine sites, stone and gravel pits, technologies employed, support activities;
- development sequence, timing, and duration of each activity, e.g. winter or summer construction, transport schedules, traffic and equipment movements;
- o the location of all clearings, structures and infrastructure, including buildings, mining headframes, construction camps, allweather and winter roads, stream crossings, borrow pits, treatment ponds, waste disposal areas, power lines;
- o disposal and treatment of domestic and industrial wastes;
- o site abandonment, including clean-up operations, removal of buildings, structures, roads, and infrastructure, such as in-ground piping, wiring, lagoons and concrete slabs; and
- o site restoration, including grading, revegetation, monitoring.

Terms and conditions will incorporate the minimum requirements of all relevant provincial acts and regulations, the Manitoba Stream Crossing Guidelines, recommended forestry cutting guidelines, and other applicable documents. Park permits, however, may involve higher standards and increased restrictions than other guidelines wherever necessary to protect the resources of Grass River.

12.2 Forestry

Grass River's extensive stands of merchantable timber represent an important commercial resource for the forest industry and local operators. The value of those stands has also been rising in recent years owing to the decreasing availability of supplies in the region. Extensive cutting has taken place south of the Park and forest fires in 1980 destroyed many hectares of timber previously accessible.

Forestry operations are both compatible with some wildlife species, such as moose and grouse, and potentially in conflict with others, such as caribou. Similarly, logging can have deleterious effects on some recreational activities and on aesthetic enjoyment, but may be of positive assistance to hunters and trappers. The ways of managing forest operations to avoid or minimize adverse consequences are provided in this section.

Forestry operations will be restricted to cutting areas which are identified on the basis of three criteria:

- exclusion from especially sensitive natural resource habitats and caribou ranges;
- o compatibility with other priority Park objectives, facilities, uses, and land use allocations; and
- o existing commitments to present timber operators.

Specific allocations within these areas, based on a 5-year plan for harvesting and regeneration, will be the responsibility of the Forestry Branch. Generally, forestry operations within Grass River will be of a relatively small scale.

Prior to commencing operations, forestry operators must submit a detailed annual cutting plan for their allocated areas, showing size and configuration of cuts, retention of bushland, location of haul roads, and other commitments. Enforcement of terms and conditions of plan approval will ensure compliance.

Forestry management terms and conditions include the Manitoba Stream Crossing Guidelines, cutting techniques that will minimize the impact of forestry on wildlife and the park setting, and special requirements. These include the following:

- Treed buffers within site and impact distances from major lakes, streams, roads, and recreational facilities will be required. A minimum of 100 metres is currently required.
- Cutovers will generally be scarified, seeded or planted to ensure reforestation of tree species. Some areas will be left to regenerate naturally.
- All access roads from highways will be designed with aesthetic considerations.
- 4) Plantings will be used to screen the entrance to abandoned forestry roads off of major park highways.
- 5) Slash and debris from forestry operations will be lopped and spread.
- Proposed forestry access roads will avoid important caribou wintering grounds, wherever possible.
- 7) The size and configuration of harvested areas will be regulated to maintain viable caribou habitat and to improve habitat for moose, grouse, and other wildlife with similar feeding characteristics.
- 8) Forestry roads will be kept far enough away from remote lakes to avoid access by four-wheel drive vehicles.
- Access to selected roads will be destroyed and replanted after use.
- 10) Any future bridge crossing of the Grass River will be removed after cutting and hauling are completed north of the river.

12.3 Mining

Potential for expanded and renewed mining activity in Grass River is high (Map 9), and presents an important economic opportunity to the region. Mineral exploration is ongoing and will be permitted to continue. Exploration within sensitive areas such as key wildlife sites, or developed recreational areas will be carefully regulated by permit conditions, as required. Most exploration is undertaken during winter months.

Mining development will be a permitted use throughout the Park. A variety of legislation exists to guide mine development, particularly The Mines Act, The Clean Environment Act, The Canada Fisheries Act and the Provincial Park Lands Act where provincial parks are involved. Any proposed mine site development will be assessed on a case-by-case basis wth reference to its impact on other park features and activities.

Project proponents will be required to provide detailed mine development and mine abandonment plans. Development and abandonment of mine sites will be governed by various provincial and federal acts and regulations, as noted above, and by terms and conditions of approved Parks Branch permits. These terms and conditions will regulate mining activities to ensure minimal impact on priority park resources, particularly water quality and fish. They will address such items as:

o exploration activities (eg. work camp locations) and timing,

- o site clearing and visual buffers,
- o access roads and traffic movements,
- o construction camps,
- o handling of waste rock,
- o waste and sewage disposal,
- o operations plans and schedules.

Several prevailing conditions have been developed and will apply to all mining development. These are:

- o concentration of ores will be permitted only for small-scale operations,
- o residential camps will be limited to construction (development) phases only,
- o no resident camps will be permitted after construction other than those necessary for security and service staff.
- o Storage of chemically active materials (ores, tailings) would be permitted only where there will be no significant impact on the environment.

With particular reference to maintaining water quality, it was noted previously that the Grass River system within the Park has been classified by The Manitoba Clean Environment Commission as a "non-degradation" area. This means that special technical measures could be required to ensure preservation of water quality. No direct discharge of any effluent or waste water into any waterbody will be permitted without approval. Treatment of domestic sewage will be mandatory to ensure both ground and surface water quality will be maintained. The onus will be on the developer to prove that discharges from mine dewatering will not contaminate either ground or surface waters. The proponent's plans will show how this can be achieved and how its water quality monitoring program will be carried out. If natural settling areas are not in the vicinity of the mine sites, or if the area cannot accommodate man-made settling ponds, the onus will be on the proponent to transport mine water to an area where sufficient treatment can be carried out in order to preserve both ground and surface water quality.

There is reasonable probability, based on Grass River's extraordinary geology, that significant mineral discoveries may occur in the future. Related mine development proposals might exceed the conditions set down in


this plan. Such proposals could conflict with these conditions and primary park values, and would require full review of the park management plan, including public participation. In addition it is to be expected that routine public scrutiny of mine development proposals would occur through the auspices of the Clean Environment Commission.



12.4 Commercial Fishing

Commercial fishing to date has not interfered with or reduced the quality of sport fishing. Should a conflict arise, sport fishing will clearly take precedence. It is unknown, however, whether the commercial harvesting of rough fish, such as cutter whitefish and suckers, can actually enhance the production and population of desired sport fish species, such as walleye and pike.

Many fisheries biologists seriously question whether enhancement, or even maintenance, of a sport fishery can be achieved through selective removal of non-sport species. Furthermore, methods have not been developed to date that could adequately test the theory. To attempt such a test and to develop the needed measurement criteria, an area or location may be set aside for an experiment to use commercial fishing as a means to enhance sport fish populations. This experiment may take one of several forms: development of statistically-reliable biological methods; monitoring of existing commercially-fished lakes; a realistic, economically-feasible field test; or controlled experimentation, if practicable.

In the meantime, commercial operations in the four currently commercially fished lakes will continue under the management of the Fisheries Branch. The Branch's regulations establish quotas and seasons, prescribe net sizes and gear restrictions, and monitor operations to maintain sport fish populations.

12.5 Trapping

As no conflicts presently exist between trapping and current levels of recreational or commercial use, trapping will continue within the existing management system. Trappers will be encouraged to employ the most up-to-date humane trapping methods and devices.

The Wildlife Branch undertakes routine evaluations of trapping practices and trapline allocations. Adjustments may be considered in the future as required by new initiatives in furbearer management. The advice and expertise of trappers will be sought in the development of proposed interpretive facilities and programs on wildlife.

12.6 Aggregate Removal

Extraction and removal of soil, sand, gravel, and rock must be approved by Parks Branch in accordance with the permit procedure. Guidelines for processing permit applications are:

1) New borrow sites, pits or quarries may be approved only when comparable aggregates are not readily available either from existing sites within the Park or from existing or new sites outside the Park.

2) New borrow sites, pits or quarries may be designated only when extraction or recovery does not interfere with or impair recreational uses.

Conditions applied to permits will deal with such matters as:

o visual and noise buffering, o aesthetic design of access roads, o stockpiling, o backfilling, o contouring, o vehicle movements, o restoration, and o revegetation.

13.0 ZONING

13.1 Purposes and Categories

Zoning is a means of controlling existing and potential uses and activities. As such, it provides a basic guide for all parties-at-interest, including government officials, industrial and commercial operators, development proponents, and individual visitors. Zoning is thus intended to provide clarity and predictability for everyone with respect to use of the Park.

To provide a land use structure for protecting, managing and developing the Park's resources, four zoning categories are proposed. These zones recognize the special qualities and regulatory requirements of Grass River. They are to serve as the basis for future use of specified areas and for development or resource management applications.

The four zoning categories for Grass River Provincial Park are:

- 1. Special Areas,
- 2. Developed Recreation,
- 3. General Recreation, and
- 4. Commercial Resource/Recreation.

Park areas classified in this manner are illustrated in Map 10. Each zone is defined in terms of the uses or activities permitted within it. Uses or activities neither expressly nor implicitly identified as permitted are deemed to be excluded from that zone. An exception is made for mineral exploration and mine development. These activities are permitted throughout the Park under terms and conditions which would ensure little or no impact on water quality, fish and wildlife, park facilities and aesthetics. The terms and conditions governing such activities could vary by zone, dependent on the specific park features that might be affected.

As noted earlier, the existing Registered Trapline System will be maintained and, therefore, is not affected by zoning.

13.2 Special Areas Zone

The Special Areas Zone is reserved for significant and sensitive features requiring strict protection from human disturbance. This may be on a year-round, seasonal, or short-term basis as required. Typically, only limited access to or use of Special Areas may take place. Outside of restricted periods, recreational uses which are permitted in the General Recreation Zone (see below) will be allowed. During restricted periods, the only activities that may be approved within the Special Areas Zone are:

- o scientific research,
- o preservation and enhancement management,
- o interpretive displays and programs.

Specific sites currently classified as Special Areas are the:

- 1. Caribou Calving Islands
- 2. Reed Lake White Pelican Roosts
- 3. Reed Lake and Leak Lake Gull-Tern Colonies
- 4. Reed Lake Ice Caves
- 5. Leak Lake Iskwasum Lake Solution Channel
- 6. String Fens
- 7. Palsa Hazel

Other sites that will be classified as Special Areas in the future, should they be identified, are those containing:

- o bald eagle nests
- o rare plants
- o pictographs, and
- o other significant archaeological or historical sites

As some special or sensitive areas are subject to change over time, such as calving islands and nesting sites, the Special Areas Zone will be continuously monitored and designations updated periodically.

13.3 Developed Recreation Zone

The Developed Recreation Zone includes existing and planned recreational developments and their associated facilities and infrastructure.



Uses permitted in the Developed Recreation Zone include:

o campgrounds,

- o commercial lodges,
- o group camps,
- o solid and liquid waste disposal sites,
- o major highways and recreational access roads, and
- o aggregate removal.

At the present time, the following general areas comprise the Developed Recreation Zone:

- 1. Reed Lake Campground and Vicinity,
- 2. Iskwasum Lake Campground and Vicinity,
- 3. Gyles Campground and Vicinity,
- 4. First Cranberry Lake Water Access and Vicinity, and
- 5. PTH 10 and PR 391 Corridors.

13.4 General Recreation Zone

The General Recreation Zone is set aside primarily for a wide range of recreational activities and, secondarily, for a selected number of commercial activities deemed generally compatible with those recreational uses. The recreational uses permitted in these areas are those generally involving no permanent structures or infrastructure of any kind. Recreational and commercial uses are subject to all applicable provincial acts and regulations, and to special permit terms and conditions.

Activities permitted within the General Recreation Zone include:

- o remote camping,
- o existing remote lodges,
- o sport fishing and hunting,
- o canoeing and boating,
- o commercial fishing, and
- o aggregate removal.

In addition, uses permitted in the Special Areas Zone, such as scientific research and resource management, are permitted in the General Recreation Zone. In general, no roads, bridges, or other infrastructure are permitted within the General Recreation Zone, except those currently in place or approved. One exception, however, is a possible new access and infrastructure corridor, comprising a bridge crossing of the Grass River between Loucks and Reed Lakes, a transmission line, and a timber access road. Conditional use permission may be granted for such a right-of-way through the General Recreation Zone. Any future proposals that are in conflict with this general requirement will be evaluated on a case-by-case basis.

Most of the Park, especially its water bodies, is reserved for general recreational use. Boundaries of the General Recreation Zone have been typically set at a distance of approximately two kilometres from the shorelines of major lakes and the Grass River.

13.5 Commercial Resource/Recreation Zone

The Commercial Resource/Recreation Zone is intended to provide opportunities for both general recreation and intensive commercial resource uses. All commercial uses allowed in this zone are subject to permit terms and conditions, and to all applicable provincial acts and regulations.

All activities permitted in the General Recreation Zone and the Special Areas Zone are allowed in the Commercial Resource/Recreation Zone. Additional uses permitted only in the Commercial Resource/Recreation Zone include:

- o commercial forestry, and
- o major industrial access roads and infrastructure.



14.0 IMPLEMENTATION

Preceding sections of the Management Plan have proposed a variety of management, planning, and development actions. Natural resource management of waterbodies, fisheries, vegetation, and wildlife will be a continuing process. Similarly, the management of commercial operations, notably forestry, mining, and commercial fishing, will be ongoing. The agencies responsible for resource management and the permit process will carefully monitor the Park's resources and activities, assess the need for changes in the management system, and implement those changes as required.

The physical planning tools of zoning and specific site designations reinforce and structure the management process. They also will be reviewed periodically and changes implemented as needed.

Furthermore, a series of development projects will be implemented. A preliminary phase of project planning and design will precede site development. Recommended projects are of three basic types: capital projects of a physical nature, public information projects with essentially interpretive or orientation purposes, and priority resource management projects.

These development projects have been assessed as to their general priority and sequence for implementation (Table 3).

TABLE 3. IMPLEMENTATION PRIORITY AND SEQUENCE OF DEVELOPMENT PROJECTS

	Implementation Priority & Sequence		
Projects by Type	1	2	3
CAPITAL PROJECTS			
o Campground Upgrading	Gyles Campground	Reed Lake	Iskwasum Lake
o Infrastructure	Trailer Dump Station		Electrification
o Waysides	Webster Lake	Solution Channel	Palsa Hazel
o Trails	Gyles Campground	Iskwasum Reed	Butterfly Creek
		Reed Lake	1
o Canoe Route	Designated Sites Program		
PUBLIC INFORMATION			
o Orientation	Signage Program	PTH 10-PR 391 Display	
		Cranberry Por- tage Informa- tion Program	
o Interpretation	Grass River Booklet		Booklet Update
		Canoe Route Brochure	
		Reed Lake Display	
RESOURCE MANAGEMENT	·····	· · · · · ·	
o Natural Resources	Moose and Caribou Species Plans		
	Fisheries Capability Studies		
	Forestry - 5 Year Management Plan		
o Cultural Resources	Historic Research (in cooperation with community)		
	Archaeological Evaluations (as required)		

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