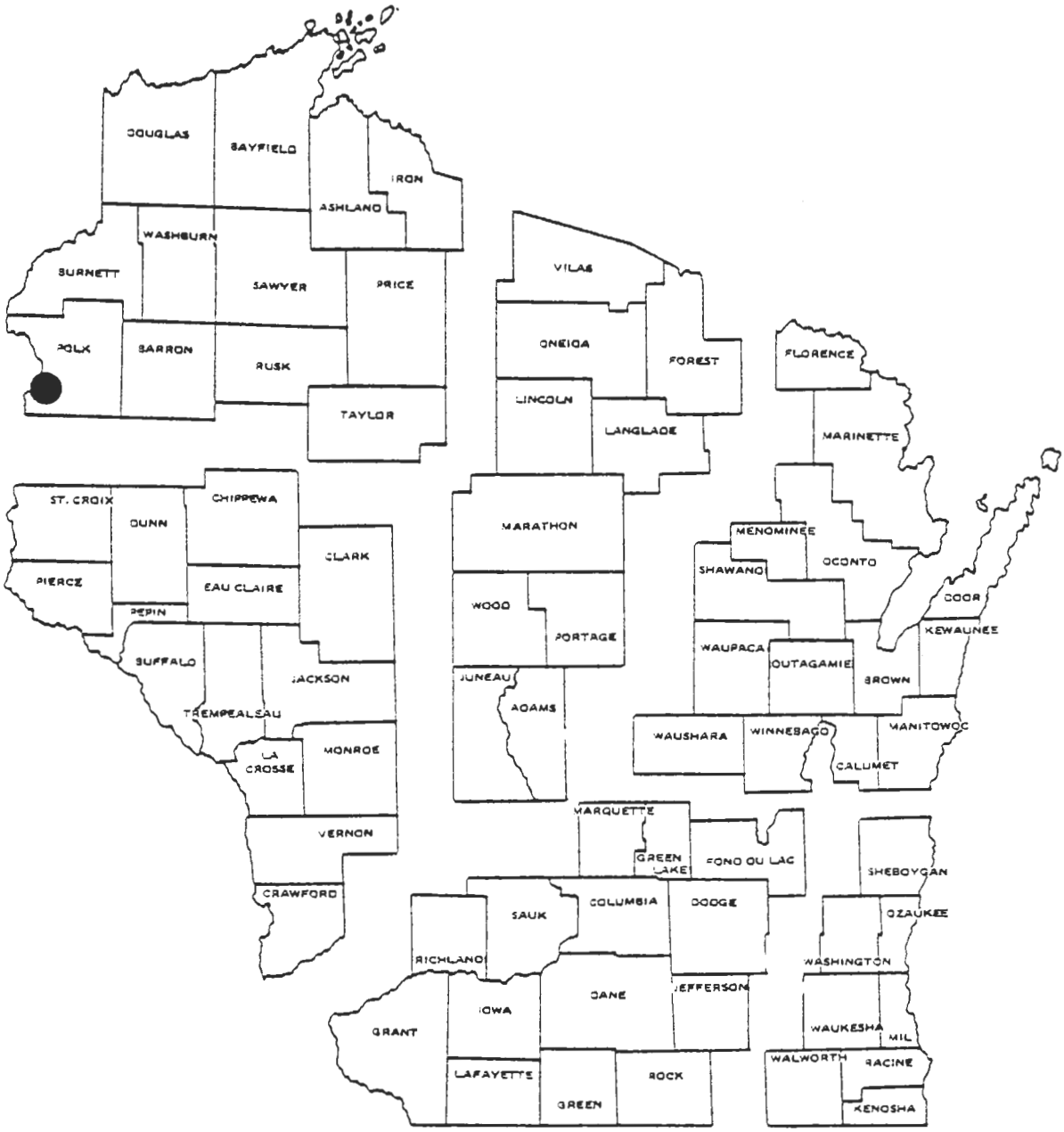
INTERSTATE PARK MASTER PLAN

CONCEPT ELEMENTS

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Submitted: November 14, 1978

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# INTERSTATE PARK MASTER PLAN

## I. Background

### A. Location

Interstate, our oldest state park and now a Unit of the Ice Age National Scientific Reserve, is located along the east bank of the St. Croix River immediately south of the City of St. Croix Falls (see Figure #2). It encompasses land in Sections 30, 31 and 36, Town of St. Croix Falls (T34N, R18-19W), and parts of Sections 1, 2 and 11, Town of Osceola (T33N, R18-19W). Presently, there are 1,174.06 acres of land within the park. Approximately 40 additional acres must be purchased to complete acquisition within the existing park boundary which encompasses 1,214.06 acres.

### B. Record of property creation

In 1890, Mr. George H. Hazzard of Taylor Falls began lobbying for a park on the Minnesota side of the St. Croix Dalles. With the Minnesota project well underway, Mr. Hazzard contacted leaders of St. Croix Falls to arouse interest in making the park a joint venture between Minnesota and Wisconsin, thus incorporating the scenic lands of both sides of the Dalles of the St. Croix into a single park. His work, and that of Wisconsinites interested in establishing a park, was successful. In 1900 Wisconsin's first state park was founded on this site.

The park is classified scenic and since its establishment has been used for recreational purposes, accommodating sightseers and providing picnicking, camping, swimming, and hiking for its users.

### C. The Ice Age National Scientific Reserve

The 1968 Ice Age Plan recommended the inclusion of Interstate Park in the proposed Ice Age National Scientific Reserve. In 1971, a portion (920 acres) of Interstate Park was designated for inclusion within the IANSR, and the boundary was published in the Federal Register. The entire Ice Age Unit boundary lies within the confines of the park and is under DNR ownership.

Proposed Ice Age development would augment and slightly alter present recreational and interpretive provisions at the park. Consistent with the overall goal of the Reserve, Ice Age development would be oriented towards preservation and interpretation of glacial features, while general park development would continue to serve a broader range of interests. Thus the overall master plan addresses both goals so that each can be achieved.

GENERAL STATE
LOCATOR MAP
Duluth-Superior
INTERSTATE PARK
Eau Claire
Green Bay
Minneapolis
-St. Paul
La Crosse
Madison
Milwauke
Chicago
DOUGLAS
BAYFIELD
ASHLAND
IRON
VILAS
BURNETT
WASHBURN
SAWYER
PRICE
ONEIDA
FOREST
FLORENCE
MARINETTE
POLK
BARRON
RUSK
LINCOLN
LANGLADE
OCONTO
TAYLOR
ST CROIX
DUNN
MARATHON
MENOMINEE
CLARK
PIERCE
EAU CLAIRE
SHAWANO
DOOR
WOOD
PORTAGE
WAUPACA
BROWN
KEWAUNEE
PEPIN
BUFFALO
OUTAGAMIE
JACKSON
MANITOWOC
JUNEAU
ADAMS
WAUSHARA
WINNEBAGO
CALUMET
MONROE
LA CROSSE
MARQUETTE
GREEN LAKE
FOND DU LAC
SHEBOYGAN
VERNON
SAUK
COLUMBIA
DODGE
WASHINGTON
OZAUKEE
RICHLAND
CRAWFORD
DANE
IOWA
JEFFERSON
WAUKESHA
MILWAUKEE
GRANT
GREEN
ROCK
WALWORTH
RACINE
LA FAYETTE
KENOSHA
35
8
94
90

Fig. 1

# COUNTY LOCATOR MAP

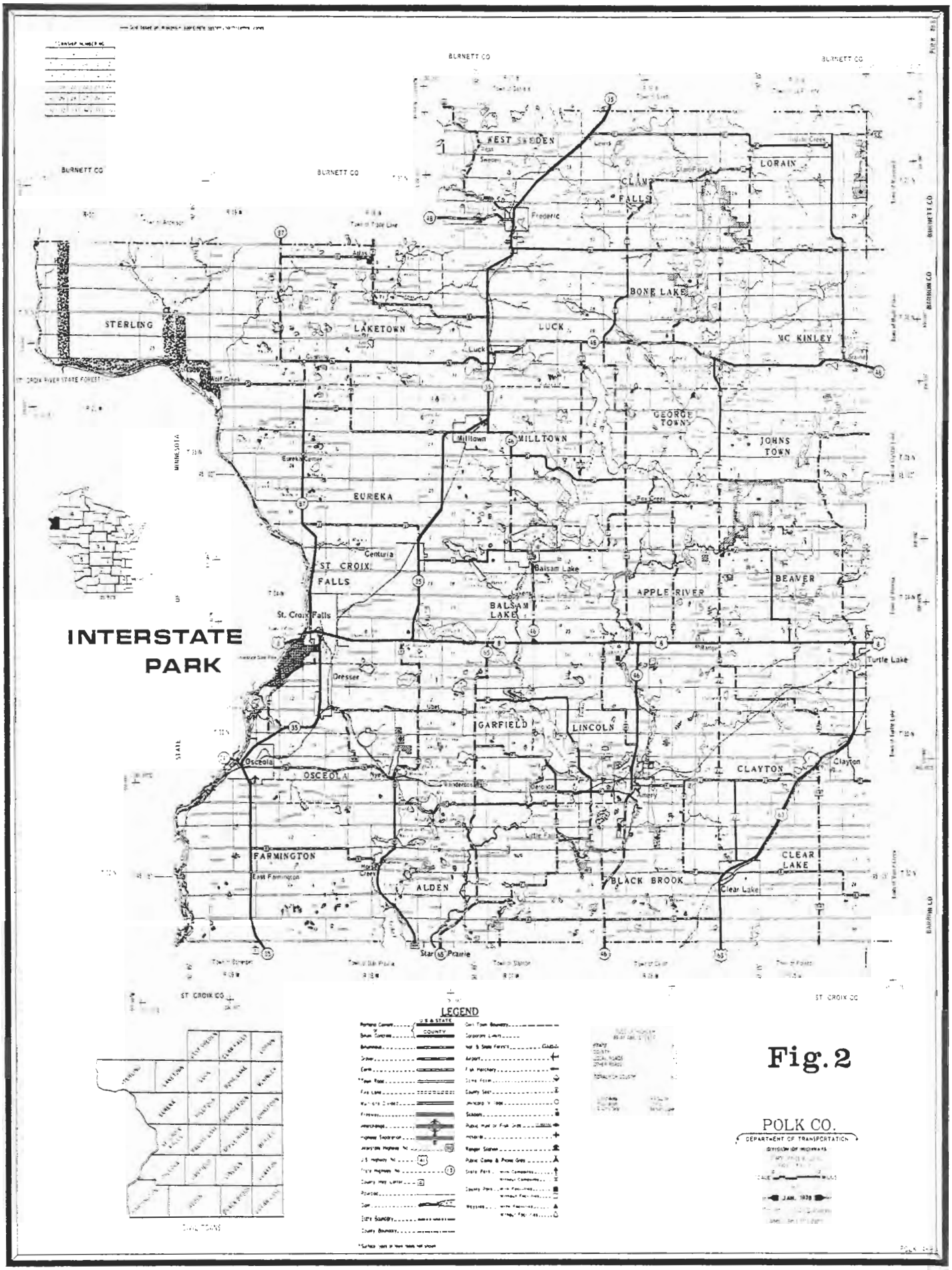


Fig. 2

Management of the Interstate Unit is the responsibility of the Wisconsin DNR and the Department will continue to staff and manage both the park and the Unit. See Appendix A for prior Board action.

D. The Lower St. Croix National Scenic Riverway

Another joint program between the National Park Service and the states of Minnesota and Wisconsin, is the Lower St. Croix National Scenic Riverway. It was authorized October 25, 1972, under Public Law 92-560, and covers that 52-mile long segment of river from Taylor Falls, Minnesota, to Prescott, Wisconsin. The overall goal of the master plan is "to preserve the existing scenic and recreational resources of the Lower St. Croix River through controlled development." The National Park Service administers that portion from Taylor Falls to Stillwater, Minnesota. The states of Wisconsin and Minnesota are responsible for the segment from Stillwater to Prescott. Interstate Park is a part of this project. Although located within the federally administered 27-mile riverway segment, Interstate will continue to be managed and developed by the State of Wisconsin for park purposes. In the portion of riverway lying between St. Croix Falls and Osceola the federal government will entirely fund the acquisition of land and scenic easements. Most of the acquired land will be by fee purchase in this stretch of the river. See Appendix A for prior Board action.

Located immediately north of the park is another combined federal-state project, the St. Croix State Forest and federal Upper St. Croix National Wild and Scenic Riverway. The programs call for the preservation and protection of those unique features which qualified the St. Croix and Namekagon Rivers for wild and scenic classification. The National Park Service and the states of Wisconsin and Minnesota have developed resource management plans to control future development on lands adjacent to the riverway. For additional information regarding this project refer to Upper St. Croix Summary Report, Minnesota-Wisconsin Departments of Natural Resources, 1975.

E. The Region population

As of 1976, Interstate Park was located within a one-hour drive of 2,000,000 people, a four-hour drive of 3-1/3 to 4 million people, and within a seven-hour drive of 8,000,000 people. The Minneapolis-St. Paul metropolitan area is located 45 miles southwest of the property. Approximately 45 percent of the population within 150 miles live in the Minneapolis/St. Paul area. Chicago, Milwaukee, and Omaha are within a day's drive of the park. (See Figure 1).

According to the official census, the population of Polk County, which encompasses Interstate Park, was 26,660 in 1970, a seven percent increase over the 1960 population of 24,944. Official 1970 census and 1974 population estimates for Polk County and selected towns and municipalities are listed in the following table. Polk County's population projection for 1990 is 30,300. The 1970 population density for the county was 28.6 people per square mile (Department of Administration, 1974).

TABLE
INTERSTATE PARK ICE AGE UNIT, REGIONAL
1970 CENSUS AND 1974 POPULATION ESTIMATES

| | 1970 Census[1] | 1974 Estimate[2] |
|---|---|---|
| Town of St. Croix Falls | 783 | 903 |
| Town of Osceola | --- | 951 |
| Village of Osceola | 1,152 | 1,376 |
| City of St. Croix Falls | 1,425 | 1,502 |
| Village of Dresser | 533 | 635 |
| Polk County | 26,666 | 29,613 |

1 Department of Business Development, undated

2 Department of Administration, 1974

F. The Region: Transportation

Access to the park entrance road is via U. S. Highway 8, an east-west highway leading from Wisconsin to Minnesota. From the north and leading through the City of St. Croix Falls is State Highway 87. State Highway 35 enters from the south and intersects with U. S. Highway 8. Leading to the park from the south is County Highway S. The nearest airport with scheduled flights is located in Minneapolis-St. Paul. Osceola and St. Croix Falls are serviced by intercity bus systems.

G. History of the Area

The St. Croix River marked the border between the Chippewa Indians and their enemies the Sioux. A fierce battle between the Chippewa and the combined forces of the Sioux and their ally the Fox took place near St. Croix Falls in the 1770's. The Chippewa were victorious and made this valley peaceful and safe enough, ironically, for settlement by whites.

The early 1800's marked the advent of the French-Canadian fur trappers into the area. Beaver pelts were the main prize they sought. However, with the depletion of the beaver, lumbering became the valley's main economic activity. Eventually as the timber was cut, lumbering gave way to agriculture. At the beginning wheat was the important crop, but by the end of the nineteenth century dairying was dominant.

The park area witnessed much of this evolution of occupation. The Indians and French voyagers used the river as a highway in their endeavors. The north part of the park had an established portage around rapids. There are still iron rings anchored in the rocks of the Dalles that were used by loggers in their operation. There is also a steamboat landing site within the park area. In more recent history, a Civilian Conservation Corps (CCC) camp was located here. These features, or the sites thereof, are worthy of preservation.

H. Description of the area

1. Geology and topography

The most outstanding features of the park are its geology and glacial history. The St. Croix River was an important drainageway for glacial meltwater from the Superior lobe of the continental ice sheet. Evidence of the water's force is the St. Croix Dalles, a 100-foot gorge through which the St. Croix River flows. Another sign of the tremendous water force generated by glacial melt runoff are potholes, which are large circular and irregular depressions in rock.

Events during the Precambrian Era and the Cambrian Period were responsible for the formation of the geologic features at Interstate. Mountains that once existed in the Interstate Park area were eroded to a peneplane, or a relatively flat area with some hills as remnants of large mountains during Precambrian times. The Precambrian Era also included a period when the land became covered with layers of lava which were discharged from the area that is presently the basin of Lake Superior. Following this lava outpouring, the area was flooded by Precambrian and Cambrian seas which deposited layers of sandstone on top of the hardened lava. Uplifting of the land occurred, and was followed by hundreds of millions of years of erosion by streams and rivers which removed most of the

sandstone layers and exposed the older lava layers. It is believed that during this time, the "Ancient St. Croix River" carved its original route, which was located further west in what is now Minnesota. This erosion process was interrupted by the Pleistocene Epoch when several glacial advances and retreats occurred (DNR, undated).

Interstate Park is located in an upland area with characteristic scattered rolling hills. Significant topographic features are the cliffs along the river rising to 200 feet in height, and the unusual rock formations. Maximum relief within the park is approximately 300 feet with a maximum elevation of about 1,000 feet on the eastern edge of the park and a miminum elevation of 688 feet at the Lake O'the Dalles. See Appendix B for additional information on geology and glaciation.

2. Soils

Basically, the property is divided into three areas by topographic features. They include: the uplands, bluffs and the bottomlands.

The upper area, located on the east end of the property, is composed of fairly deep soils including the Amery, Cushing-Chetek and Amery-Onamia soils series. These loamy soils overlay sand and gravel.

The bluff areas are composed of the Menahaga, Udorthents and Cushing-Chetek soil series. All are very thin due to the steep topography and presence of numerous rock outcrops. The underlying rock, with the exception of small areas of sandrock, are impervious to water and hence, ground water movement is superficial with wet seepage areas existing throughout the lower slopes of the park.

The bottomlands consist of two general soil groups. The first is the Onamia-Cromwell, Amery, Adolph and Nymore series, which are sandy and silty loams overlying glacial till. The second is the Fluvaquent series, which are riverbottom soils that are frequently flooded and become slippery when wet.

3. Climate

The closest weather reporting station to Interstate Park is located in Amery, Wisconsin, approximately fifteen miles to the southeast. Typical of Wisconsin's climate, summers are warm, winters are often severly cold, and spring and fall are often short with sharp weather changes. January, the coldest month of the year, has a mean monthly temperature of 11.8°F, while July is the warmest month with a mean monthly temperature of 71.0°F (U.S. Department of Commerce, undated).

No air quality measurements have been made at Interstate Park, however, because the site is in a rural area of low population density, it is expected that the ambient air quality is well below the National Ambient Air Quality Standards.

4. Vegetation

Interstate Park, situated within the tension zone, is characterized by a large diversity of vegetation. Characteristic tree species from both northern and southern forest types are found in the park, however the predominance is towards the various species of oaks often dominant in southern forests. Trees characteristic of northern forest species that are present include sugar maple, yellow birch, red pine and white pine. Much of the park's vegetation has previously been affected by disturbances, particularly timber harvesting. Parts of the far eastern border, once agricultural land, are presently open fields being invaded by various pioneer grasses and shrub species. See Appendix C for list of flora.

5. Animal life

Interstate Park has a diverse animal population. However, habitat value for game animals is not exceptionally good due to the mature forest that exists throughout much of the park. The best game and general wildlife habitat is found in the southern portion of the property. Especially valuable to the wildlife are areas by the river sloughs, small ponds and associated wetlands.

The only significant game species inhabiting the park is the white-tailed deer. Presently, the deer population is quite high (20-25 deer per square mile) and browse damage occurs in the winter months when the southern portion of the park is utilized by deer as a wintering area. Serious browse damage did occur in the northern part of the park in 1968, however, the winter range of deer is generally restricted to the southern portion.

Numerous small game mammals inhabit the property. These include most of the common mammals found in Wisconsin such as raccoon, skunk, rabbits, squirrel, chipmunk, and beaver.

Over 150 species of birds have ranges that cover the Interstate property. These include the osprey and bald eagle, which are on the endangered species list, and the red-shouldered hawk which is currently being "watched" due to its tenuous population status. The bald eagle is a transient visitor to the park in the spring and fall, and is known to roost along parts of the St. Croix River during the winter. Numerous sightings of red-shouldered hawks have been recorded in or near the park. Common birds observed within the park include various species of sparrows, woodpeckers, grosbeaks, chickadees, nuthatches, warblers and waxwings. Game birds observed include ruffed grouse and several species of waterfowl. Mallards and wood ducks have been recorded as summer residents and have nested in the park. Harvest of game species is restricted due to the hunting policy that is followed within the park, permitting only limited deer hunting.

Several species of salamanders, snakes, turtles, and frogs are known to inhabit the area. Species such as fox snakes, green frogs, tiger salamanders and painted turtles are common in their appropriate habitats. See Appendix D for list of wildlife.

6. Water resources and fish

Approximately 2.9 miles of the St. Croix River forms the western boundary of Interstate Park. Major water sources for the river are the Namekagon, Yellow, Clam and Apple Rivers from Wisconsin and the Tamarack, Kettle, Snake and Sunrise Rivers from Minnesota. Eight small tributaries on the Wisconsin side and eleven tributaries on the Minnesota side, in addition to seepage from springs,

contribute water to the St. Croix River. The river has a low nutrient content and an average annual flow of 4,036 cfs which was measured at the USGS Gauging Station at St. Croix Falls. A dam operated by the Northern States Power Company is located on the St. Croix River near the Village of St. Croix Falls.

Lake O'the Dalles (Section 36, R19W, T34N, Town of St. Croix), a 22.5 acre lake with a maximum depth of 12 feet, lies within the flood plain of the St. Croix River. The lake has an intermittent outlet to the St. Croix River. During flood water stages there is water exchange between Lake O'the Dalles and the St. Croix River resulting in similar water quality.

The Silver Brook Ponds, located in the southern portion of the park, are springs impounded by beaver dams. The ponds have a small outlet to the St. Croix River. No water quality data is available for the ponds.

A comprehensive 1961 fish survey, conducted in the St. Croix River below the St. Croix Falls dam, revealed a total of 25 different species of fish. Abundant species include sheepshead, walleye, smallmouth bass, channel catfish, shorthead redhorse and carp. The blue sucker, whose populations were once high in the Mississippi River, but is now uncommon, is fairly common in the St. Croix River. Although no comprehensive fish survey has been conducted on the Lake O'the Dalles, abundant populations of carp are known to exist. In addition, largemouth bass, crappies, bluegills, bullheads and white suckers are common. Silver Brook Ponds, located near the south-central border of the park have been stocked with brook trout since 1972. No additional information is available for the ponds.

7. Utility Corridors

An electrical transmission line originating at the St. Croix Falls hydroelectric plant and owned by the Northern States Power Company, transects the property near its east boundary line.

The Midwestern Gas Transmission Company owns a 24-inch natural gas line which runs in an east/west direction through the southern portion of the park below the Silver Brook Ponds. There are a number of restrictions on this 70-foot wide pipeline corridor which affect department activities. For instance, no structures, trees or other

obstructions can be placed within the right-of-way. In addition, no excavation, change of grade, water impoundments or use of heavy equipment can take place without written permission from the gas company. The Midwestern Gas Transmission Company also has the right to grant easements to other utility companies without department approval.

A second natural gas pipeline is located east of and parallel to CTH "S" in the east portion of the property. The three inch natural gas pipeline lies within a 66 foot wide corridor and is owned by the Northern Natural Gas Company. The company holds a blanket easement on the right-of-way and permission must be obtained before working in the area.

The northern portion of Interstate Park receives its water from the municipal water supply of the City of St. Croix Falls whose water is derived from four wells. The southern portion of the park receives its water from wells located within the park. The park's sewage system is connected directly to the City of St. Croix Falls' sewage system which has a treatment facility located just north of the park. Secondary sewage treatment facilities are being planned for the city of St. Croix Falls. Some sealed pit toilets are also located in the park. Electrical and natural gas hook-ups would be available if desired.

I. Present use and management

Interstate Park attracted 386,878 visitors in 1977. The following describes facilities provided within the property.

There are two campgrounds, a 44 unit north campground and a 50 unit south campground. Neither of the campgrounds provide electrical hook-ups. Four picnic areas located within the park are furnished with a total of 265 picnic tables and 45 grills and encompass a total of 29 acres. Three picnic shelters are located in the Lake O'the Dalles picnic area and in the river picnic area. Parking lots are provided adjacent to each of the areas and have a total capacity of 504 vehicles. There is a group camping area with a capacity of 150. The total number of miles of paved roads located within the park is about six, the majority allowing two-way traffic and a small portion allowing one-way traffic.

A 250 foot swimming beach is located adjacent to the northern end of Lake O'the Dalles. A bathhouse is located in the beach area. Parking for 200 vehicles is available in the lot adjacent to the lake picnic area, and six hiking trails, 6.7 miles in total length, wind through about 600 acres of the park. Part of these trails compose the six miles of cross-country skiing trails that are provided in the park. A two bay boat launching ramp is available on the St. Croix River. Parking for 200 cars and 18 cars with boat trailers is provided adjacent to the boat landing area. See Figure 3 in Appendix for existing park development.

Interstate is, and has been from its inception, designated a Scenic Park and managed as such. Resource management programs needed to maintain its natural features and provide a safe, usable and aesthetically pleasing park have been carried out. Deer hunting which was first allowed in 1972 has been continued to keep populations at a manageable level and reduce damage to native plants.

## II. Resource Capabilities

### A. Soils potential

The loamy soils located in the east upland portion of the park are capable of supporting recreational development as well as forest cover and crops. The deep soils and relatively gentle rolling topography have only slight limitations for structures, roads, campgrounds and related facilities.

The bluff area with its thin soils, steep topography and rock outcrops can support forest cover and provide game habitat. Hiking trails would be the extent of recreational development capable of being supported in this area.

The bottomland areas include two distinct soil series, and therefore provide two potentials. The wetland, consisting of river deposited soils in the southern portion of the property, can support lowland vegetation and wildlife but cannot accommodate recreational development other than trails. The relatively small lowland area, consisting of sandy and silty loams, can support tree growth, wildlife and recreational development. The existing campgrounds and day-use areas occupy lands composed of these latter soils.

### B. Vegetative potential

Timber condition on the property is generally good although some mortality is occurring due to unproductive sites, disease and insect infestation. A program of removing individual diseased and dead trees could benefit the stand and perpetuate the large tree aesthetics which are desirable in the park.

The Oak-Northern Hardwood type covers about 250 acres in the park. A physiological sanitation program could be developed to provide a safe, aesthetically pleasing tract with large, healthy, mature trees incorporated in a young vigorous growing forest, ranging from seedling size up to the mature sized giants. After a 50-year controlled management program, the tract could grow 300 board feet per acre per year continuously. This growth could, therefore, yield 75,000 board feet per year. The economic value as a productive crop from the land as a return for its use would at present prices be nearly $5,000 per year. With State employes performing the removal and cleanup phase, this value could be doubled.

The Bottomland Hardwood type covers about 130 acres. About half of it is being heavily used for recreation. The other half could have a management system as described above. If this were done, an annual growth of 200 board feet per acre per year could be realized. This growth could yield 13,000 board feet per year with a "return to the land" value of $650 per year. See Appendix C for list of flora.

C. Wildlife potential

The quality of wildlife habitat within the property varies greatly. The mature forest areas provide poor cover, while the abandoned fields, riverbottoms and associated sloughs, potholes and wetlands provide good habitat. The best cover is found in the southern portion of the park. With minor vegetative management to insure against mature mono-type forest growth, these areas could continue to provide good wildlife habitat.

The primary benefits to be derived from the diverse animal life is recreational. Wildlife observation, photography and general nature study would be possible. These activities are expected to increase in the future. Small game hunting is prohibited by law within the park. However, deer hunting, which is currently taking place to maintain populations and reduce browse damage, is beneficial to the property and could be continued. See Appendix D for list of wildlife.

D. Fishery potential

The St. Croix River, and Lake O'the Dalles have a variety of fish species which can and do provide anglers a recreational outlet.

The park provides a boat launch and 13,700 feet of frontage on the St. Croix River. Motorboats may be used, although they must operate at a slow speed. The Dalles Lake consists of game fish, pan fish and carp, and has 5,438 feet of shoreline. Motorboats are not allowed on the lake although small boats without motors could be used for fishing and other water related activities. The Silver Brook Ponds, located in the southern portion of the park, provide shoreline trout fishing. All water bodies have some form of fish management program to maintain present use and quality.

E. Recreational potential

The park can continue to serve a broad range of interests such as; picnicking, camping, swimming, hiking and other leisure time activities.

Proposed Ice Age development at Interstate could augment and slightly alter existing trails and interpretive displays and programs of the park. Consistent with the overall goals of the Reserve, the Ice Age development could be oriented towards preservation and interpretation of glacial features, while general park development could continue to serve a broader range of interests.

F. Land use potential

Lands within the park are classified as; Natural (N), Intensive Recreational Development (IRD), Extensive Recreation Area (ERA), and Scientific (S). The location of these areas is illustrated on the proposed development map (figure 5).

Intensive Recreational Development (IRD) accounts for approximately 80 acres. Fifty-five acres are presently developed for picnic area, family campground, outdoor group camp, beach, boat landings and trails. The remaining 25 acres will be developed for 4,200 feet of new entrance road, a contact station, travel trailer sanitary station, Ice Age interpretive center, outdoor group campground and special use area.

Two areas within Interstate Park have been recommended as potential Scientific areas (S). The lowland forest containing nearly 90 acres is significant because of its lack of recent cutting, high plant community integrity, diversity of plant species including some rare species and lack of comparable examples under public ownership.

The second proposed state Scientific area known as the Pothole Area would protect a portion of the St. Croix River gorge which contains potholes and other unique geological features. This proposal is approximately 50 acres in size and is located north of Lake of the Dalles.

Natural area (N) encompasses approximately 926 acres of the total 1,439 acres within the proposed park boundary. It will be managed in accordance with the guidelines set forth in the policy on wild resources adopted by the Natural Resources Board on 12/10/73, Manual Code 1031.1.

Two hundred ninety-three acres are designated as Extensive Recreation Area which is primarily buffer around and between the various intensively developed recreation areas that are concentrated in the north half of the park.

## III. Management Problems

### A. Entrance Road

The existing park entrance has two access points off of Highway 8. Vehicles approaching from the east must enter the property via an access road to the north of Highway 8 and proceed under a highway bridge to gain entry to the park proper. Vehicles approaching the park from the west must enter via an access road south of Highway 8. Entering and leaving the park by these roads create confusion and congestion due to the left turn restrictions across highway traffic lanes.

Approximately 400 feet south of Highway 8 the access roads converge to create one main park road. A contact station is located on this road within 600 feet of Highway 8. Because of this limited distance, the entrance road system is incapable of adequately serving the park during peak visitation periods. Vehicles must occupy Highway 8 traffic lanes while waiting to enter the park. Past proposals to eliminate this problem by realigning the entrance road or providing additional lanes on Highway 8 have been unsuccessful. With the addition of an IANSR interpretive center, this congestion is expected to increase.

Due to the limited space available within the entrance road corridor, a small contact station must service all park visitors. This sales booth is manned only during high visitation periods. During the remaining time, the booth is unmanned as personnel are assigned duties in the park office. This reduces park security, sticker sales and camper registration efficiency and may cause revenue loss.

B. River bottoms use-area

Presently there is turf damage caused by people parking vehicles on the grassed day-use area after the striped parking stalls are filled. This is most evident near the boat launch area.

C. Lack of developable land

Steep topography, thin soils and wetlands greatly limit the development potential within the confines of the park. If the need for expanded family camping, group camping and day-use facilities becomes evident in the future, they could not be provided within the existing park boundary.

D. Campground - south area

The southern campground, containing 50 sites, is congested due to limited development space. In order to bring the campground up to standard it would be necessary to reduce the number of sites by about one-half. In addition, the existing toilet building, constructed in 1961, is in poor condition. The cost of renovating the campground and decreasing camper receipts would reduce the park's operations and maintenance budget. Reducing the total number of campsites by 25 would be an inconvenience to people who want to camp in the park.

E. Waste disposal

Presently the park's sewage system is connected directly to the City of St. Croix Falls' sewage system which has a treatment facility located just north of the park. Maintenance problems exist with the lift station located in the beach day-use area. To reduce maintenance costs to this system a method of reducing load or equipment modification should be undertaken.

F. Vegetation

A mature oak stand is located on the northern two-thirds of the east half of the park. While predominately oak, it also has associated species of the northern hardwoods complex. The stand is fully stocked, but mortality is beginning to occur due to wind breakage. Disease and infestation are very common. A scattering of ironwood is about the only understory species present.

The hardwoods lie on gently rolling terrain on the extreme east side of property. The stand drops off very sharply to the west side of the park. They are completely exposed to the strong west and northwest winds. Considerable single tree wind breakage will continue to happen and the chance of extreme damage exists should strong winds occur. Unless a sanitation program is initiated, the large tree aesthetics so desirable in this park situation will be lost.

Bottomland hardwoods along the St. Croix River are presently losing elms to Dutch elm disease. These losses are expected to increase unless a control program can be formulated.

G. Erosion

Erosion problems exist along the river shoreline and in some of the bluff areas. The shoreline is very fragile because of the high water and the bluffs are subject to erosion due to thin soils.

H. Flooding

The river picnic area generally floods in the spring of each year. A necessary cleanup of the area is done after each flood, however, there is very little damage to buildings, roadways, and auxiliary facilities as a result of this flooding.

IV. Recreational Needs of the Region

The 1977 Wisconsin Outdoor Recreation Plan, referring to Region 13, consisting of Barron, Dunn, Pepin, Pierce, Polk and St. Croix Counties, indicated the following recreational needs:

1. Expansion and protection of swimming facilities

2. Improvement of surface water use opportunities by providing increased public access, channel clearance and improved water quality

3. Developed camping projections indicate that the existing campsite supply is adequate to meet demand through the year 1985, however, a deficit of 216 campsites will exist by 1995. These figures are somewhat questionable though as campgrounds are stated to be operating at or above capacity in many areas. On the average, campgrounds are presently filled to 84% of capacity. This implies that on the average seasonal weekend, most campgrounds are filled to capacity (1977 SCORP Report).

4. Primitive campsite development may be a priority area for public involvement; more data is needed.

5. Additional picnicking sites and support facilities are needed

6. Protection of scenic and historic sites is needed

7. Development of additional recreational trails for pleasure walking, snowmobiling, horseback riding, hiking and bicycling is desired (See Appendix E for more detailed discussion of the region's recreational needs).

V. Management and Development Alternatives

A. Retain existing park facilities with no additional development

The alternative of no additional park development is possible. However, the goal of the Ice Age National Scientific Reserve, of which Interstate Park is a Unit, could not be met. The IANSR plan calls for a office-interpretive building, parking and a road and trail system to interpret the Ice Age features of the property. Being an Ice Age Reserve Unit will mean additional users in the park. The existing park facilities could accommodate much of this use but not all of it. In addition, redevelopment of day-use and campground areas is needed to reduce impact on the resource and maximize recreational potential as well as management efficiency. Therefore, this alternative is not viable.

B. Expand and improve park facilities

The second alternative would provide those items needed to meet the park and Ice Age Unit mission. The entrance road could be relocated to Highway 35. This would reduce the existing congestion and related problems associated with the Highway 8 entrance. It would also provide space for operations and support facilities such as the contact station, office-interpretive center and service building. The day-use areas could include minor redevelopment to decrease congestion bring the areas up to standard and decrease impact on the resource. The existing family campground and group camp could be upgraded

for use until such time as it could be determined if a need for a new campground exists. Other facilities would also be expanded and upgraded, and interpretation of geological and other natural features improved. The potential of connecting park trails to trails on Federally owned land along the St. Croix River could also be evaluated as well as the development of canoe campsites.

## VI. Recommended Alternative

Alternative B is recommended. This would provide for a full complement of Ice Age National Scientific Reserve and park facilities. A new entrance road, contact station, office-interpretive center, parking, trails and eventually a new camping area would be included. In addition, minor redevelopment of existing day-use areas would be implemented.

Horseback riding, off-road vehicles and snowmobiling would not be allowed due to the erosion they create and other damaging effects on the fragile natural features of the park. The snowmobile trail which served as a connector to an established trail outside of the park has been closed as an alternate route has been developed.

## VII. Goal and objectives

### Goal

To provide a Scenic State Park and Unit of the Ice Age National Scientific Reserve which will serve the recreational and educational needs of the park visitor.

### Objectives

1. To preserve and protect the significant geological features of the park.

2. To emphasize the educational mission of the park as it relates to the Ice Age features and discourage or prohibit uses not compatible with this objective.

3. To provide recreational and educational facilities to accommodate 480,000 projected annual visits for such activities such as picnicking, camping, swimming, hiking and others that are compatible with the goal of the park and Chapter 27, Laws of Wisconsin.

4. To manage, maintain and enhance the park's scenic and landscape quality.

5. To manage, maintain or enhance the diversity of its flora and fauna and thus promote their educational value.

6. To manage, maintain or enhance its wildlife carrying capacity within limits not detrimental to the park goal and other objectives here set forth.

7. To accommodate the handicapped within limits of practicality.

## VIII. Proposed Action

### A. Acquisition

The existing park boundary encompasses 1,216 acres of which 1,174 acres are in state ownership. The last parcel of land purchased for inclusion within the park included 33.65 acres. This property, located between CTH 'S' and Hwy. 35 was acquired for future entrance road development. Total acquisition cost for the property to date is $211,064.

The entire Interstate Ice Age Unit of 920 acres lies within the confines of the park. Figure 4 delineates the state park and Ice Age Unit boundaries.

Additional land is needed to fulfill the park's goal and compliment the Ice Age National Scientific Reserve and Lower St. Croix Scenic Riverway objectives. Property to be acquired will provide space for the relocation of CTH 'S' upon abandonment. This will remove potential vehicular conflict on the proposed entrance road and increase park security. Additional land will afford space for day use, camp area and trail development which is needed to eliminate overuse and upgrade existing facilities. It will also insure protection of the park's scenic quality and natural features by providing a buffer zone to keep undesirable development away from the park proper.

The following parcel descriptions include land to be added to the acquisition boundary (see Figure 4 in the appendix).

1. 83.09 acres in the SW 1/4 of Section 31, T34N, R18W.

2. 40 acres in the SE 1/4 of the SW 1/4 of Section 31, T34N, R18W.

3. 39 acres in the SW 1/4 of the SE 1/4 of Section 31, T34N, R18W.

4. 61 acres in the SW 1/4 of the NE 1/4 and the NW 1/4 of the SE 1/4 of Section 31, T34N, R18W.

This would change the acquisition boundary to include all the remaining land in Section 31 (T34N, R18W) with the exception of part of the SW 1/4 of the NE 1/4 of Section 31. This land was not included due to the presence of strip residential development and a church. The total proposed acquisition is approximately 223 acres. The boundary change will result in a 1,439-acre park. Refer to Figure 4 - Ownership Map.

All acquisition of land for inclusion in the park will be financed through applications for Land and Water Conservation Funds (LAWCON). LAWCON grant-in-aids would be based upon the regular LAWCON procedure under which 50 percent of the acquisition would be borne by the State of Wisconsin through ORAP and the remaining 50 percent would be derived from the state's apportionment of the LAWCON fund.

The estimated price for the 223 acre tract to be acquired is about $330,000.

B. Development

1. Phase 1

Development will be phased in accordance with available funding. The first phase will focus on the construction of Ice Age Unit and supporting park facilities.

An interpretive center is the major development proposed at Interstate for the Ice Age Unit. Contained within the center will be displays and exhibits directly related to the glacial and natural features of the park, an auditorium, flush toilets and office space for the naturalist and park superintendent. The proposed building site is near the new entrance road in the east upland portion of the park.

Adjacent to the center will be a 50-car, 5-bus parking lot paved with bituminous concrete. The parking lot may be enlarged in the future if demand warrants. Landscaping for architectural accentuation, shade and screening will be performed to maximize aesthetic appeal. Existing hiking trails will be used, however, some interpretive signs and displays are included in the development proposal. An interpretive overlook is proposed to be constructed at the top of Eagle Peak.

Major park development includes a new entrance road which will run west from Highway 35 and connect to the interior park road near the existing park office area. Facilities proposed in conjunction with this road include a contact

station, a trailer dumping station, an entrance sign and landscaping. All facilities will share common utilities. The abandonment and relocation of CTH 'S' is also included as a development item in the overall implementation of this proposal.

Other phase one items include redevelopment of the south campground, toilet facilities for the north campground, and erosion control in the river bottom use area. Figure 5, in the appendix, indicates the location of planned park and Ice Age Unit developments.

2. Phase 2

The second phase of development will focus on upgrading park facilities. A service building will be constructed adjacent to the new entrance road. Toilet facilities will be provided in the pothole area. Landscaping, play area development and playground equipment will be added to the north campground and river bottom use area. The river bottom area will also have an additional 125 designated parking stalls and electrical lines will be buried in the beach area.

3. Phase 3

Future park development will include the construction of a new outdoor group camp which will be available to groups on a reservation basis and to individuals as an overflow area when not in use by groups. Upon development, the existing south campground will be redesignated as a day-use area and serve as a trail start and picnic site. A gated, special use area will be developed at the Silver Brook Pond site and also be available for group use on a reservation basis. Toilets, drinking water, picnic area and gravel road with parking will be the extent of development in the special-use area.

The development schedule for the park and Ice Age Unit is divided into three phases and is outlined by the following:

Phase I - $795,200

| | |
|---|---|
| Entrance road, contact area roadwork and relocate county trunk highway 'S' | $341,800 |
| Ice age interpretive center | 289,000 |
| Ice age parking lot (50 cars-5 buses) | 72,000 |
| Contact station (14' x 20') | 8,000 |
| Trailer dumping station | 19,900 |
| Entrance sign | 3,500 |
| Landscaping for new development | 20,000 |
| Four chemical toilets for north campground | 6,000 |
| Well and hand pump for drinking water in existing group camp | 5,500 |
| South campground redevelopment | 4,500 |
| Erosion control - river bottom use area shoreline | 25,000 |

Phase II - $177,750

| | |
|---|---|
| Service building (40' x 100') including apron and road | $130,000 |
| Landscaping and playground equipment for north campground | 3,000 |
| Two chemical toilets for pothole trail area | 3,500 |
| Bury power line in beach area | 4,000 |
| Riverbottoms use area | |
| Provide an additional 125 parking stalls adjacent to roadway | 31,250 |
| Playground equipment | 4,000 |
| Landscaping and play area development | 2,000 |

Phase III - $319,600

| | |
|---|---|
| New group camping area - 350 person capacity ($3,000/site) | $300,000 |
| Special use area development - Silver Brook Pond Site | 19,600 |
| One 4-unit combination pit toilet | |
| Well and hand pump | |
| Site development including upgrading road, parking and gate. | |

Total development costs including 15 percent for engineering and contingency is $1,486,432.

Ice Age development costs will be shared by the Wisconsin DNR, the National Park Service and the Land and Water Conservation Fund. LAWCON will pay for 50 percent, the National Park Service will pay up to $425,000 and the State will pay for the remainder. After the National Park Service funding reaches $425,000 in total for the entire Ice Age Reserve, the State and LAWCON will pay for the remainder of the Ice Age projects on a 50-50 cost sharing basis.

The combined proposed acquisition and development cost is estimated at approximately $1,816,432.

C. Management

1. Facilities Management

As set forth in the Ice Age Act, the IANSR will be managed for the protection, preservation and interpretation of the nationally significant geologic features which are evidence of the Wisconsin stage of the continental glaciation. Under terms of the agreement between the Secretary of the Interior and the State of Wisconsin, the Wisconsin DNR will have overall responsibility for the administration and management of the park and reserve. Although the actual operation and maintenance will be carried out by DNR employes, the National Park Service will conduct biennial reviews of the administration and management of the reserve.

Although Interstate is a unit of the IANSR, it is subject to the normal requirements of Wisconsin law with respect to such matters as state or local taxes, licensing and wildlife management. As a unit of the Wisconsin State Park System, Interstate will be developed and managed under Chapter 27, Laws of Wisconsin, specifically Section 27.01, which governs state parks. The property will be managed under the provisions of Wisconsin Administrative Code 45 which contains the rules of the Wisconsin DNR pertaining to the conduct of visitors in state parks, state forests and other properties under the jurisdiction of the DNR.

Present staffing at Interstate consists of two permanent and two seasonal employes. CETA, Manpower, L.T.E. and Y.O.U. employes comprise the remaining work force. Two permanent and two seasonal personnel will be needed in addition to the present staff to meet the anticipated increase in park programs. One of these positions would be a naturalist

who would present programs and conduct hikes focused upon the overall glacial story and features of the property. Routine law enforcement duties will be handled by park personnel with support available from the Polk County Sheriff's officers. Maintenance equipment similar to what is presently being used will be needed to maintain the property.

The actual operating cost for Interstate was $117,072 in fiscal year 1976-77. The projected operating costs would be approximately $118,000 for 1978-79. The annual cost for management, protection, maintenance and rehabilitation of the park and reserve will be divided equally between the National Park Service and the DNR. The NPS will utilize funds appropriated specifically for management of the reserve and the DNR will use ORAP formula monies.

Under the terms of the agreement between the Secretary of the Interior and the state of Wisconsin, indivudual units of the IANSR are subject to Wisconsin parks user fees. Wisconsin presently charges user fees for access to its state parks in the form of a vehicle sticker. Under Chapter 27 of the Wisconsin State Statutes, money collected from admission fees is applied toward operation and maintenance costs of Wisconsin's parks and forest recreation program.

Under the terms of the agreement with the NPS, Wisconsin will honor the "Golden Eagle" and the "Golden Age Passports" in the Ice Age Units. The "Golden Eagle Passport" is an annual permit available from the National Park Service for a fee of ten dollars. It permits admission into all national parks, monuments, recreation areas, seashores, historical and memorial parks administered by the NPS. The "Golden Age Passport" provides the same privileges and is available free of charge to any citizen 62 years of age or older. Currently, the National Park Service passports are being honored at the Kettle Moraine, Devil's Lake, Mill Bluff and Interstate Park Units.

2. Vegetative Management

Vegetative management techniques will be used to maintain and enhance the safety, aesthetic quality and wildlife habitat of the park. Pathological tree removal will occur to insure a healthy timber stand. Intensive recreation areas will be maintained to appear as natural as possible so as to harmonize with the rest of the park landscape.

Plantings will be of species native to the area. Trees and shrubs will be placed in a random fashion to avoid the formal look of plantation planting. This will maximize the natural appearance of the area and provide spaces of intriguing and aesthetically pleasing shape and size.

3. Wildlife Management

Although there are no formal wildlife management programs for habitat manipulation within the property, a number of activities should be employed which will benefit wildlife. Many of these are associated with routine forestry practices and include encouraging greater shrub growth (edge) on desirable sites, timber removal along open field borders to encourage brushy edge, and maintaining wetlands to encourage fur bearer use and discourage brush growth. The benefits to be derived from this program include greater wildlife numbers and diversity for nature observation and study.

Deer hunting which was first allowed in 1972 should be continued to keep populations at a manageable level and reduce damage to native plants.

4. Fish Management

Fish management practices are limited to annual stocking of brook trout in the Silver Brook Ponds and periodic carp removal from the Dalles Lake. No specific fisheries activities take place on the St. Croix River adjacent to Interstate Park.

# APPENDIX A

## PRIOR BOARD ACTION

Ho2 LD020D09

Form 1100-1

Item 6C-11(b) Minutes of April 14, 19

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Madison, Wisconsin

ITEM RECOMMENDED FOR NATURAL RESOURCES BOARD AGENDA

TO THE SECRETARY: Anthony S. Earl Date March 24, 1976

FROM: Arthur Doll

SUBJECT: Master Planning - Adoption of final master plan for Lower St. Croix National Scenic Riverway.

1. To be presented at April Board meeting by Art Doll.

2. Appearances requested by the public:

| Name | Representing whom? |
|---|---|
| None | |
| | |

3. Reference materials to be used: Final master plan for Lower St. Croix National Scenic Riverway (previously sent to all Board members).

4. Summary: This plan, developed jointly by the National Park Service, Minnesota DNR, Wisconsin DNR, and Minnesota-Wisconsin Boundary Area Commission, outlines the steps necessary for the protection of the Lower St. Croix River, as provided by P.L. 92-560. Various previous actions of the Board have supported the establishment of this National Riverway.

5. Recommendation: That the Board formally adopt the plan as its guide for the Department's activities in this area.

APPROVED:

Michael Ley 4/1/76
Mr. Ley Administrator Date

Mr. Administrator
Anthony S. Earl 4/2/76
Secretary Anthony S. Earl Date

Signed:
Arthur D. Doll
Arthur D. Doll, Director
Bureau of Planning

ADD:ph
cc: Kathy Kahler

B02 LD015B14

Form 1100-1

Item 6.C-2 Minutes of 7/17/74

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Madison, Wisconsin

ITEM RECOMMENDED FOR NATURAL RESOURCES BOARD AGENDA

TO THE SECRETARY: Date May 1, 1974

FROM: D. L. Weizenicker

SUBJECT: Approval of preliminary master plan and establishment of acreage goals for National Scientific Ice Age Reserve

1. To be presented at May Board meeting by D. L. Weizenicker.

2. Appearances requested by the public:

| Name | Representing whom? |
|---|---|
| Robert Chandler | National Park Service |
| | |

3. Reference materials to be used:

Memorandums; master plan

4. Summary: Board approval is requested of the preliminary master plan, contingc on a favorable environmental impact statement, and the establishment of acreage goals for e National Scientific Ice Age Reserve in Wisconsin.

e National Scientific Ice Age Reserve was officially established by Federal action, with e approval of Governor Lucey, by publication of unit boundaries in the Federal Register on y 29, 1971.

e final master plan, environmental impact statement, public hearings and review will be comple: late 1975 or early 1976.

5. Recommendation: That the Natural Resources Board approve the preliminary ster plan, contingent upon a favorable environmental impact statement. It is also requested that preliminary acreage goals for the National Scientific Ice Age Reserve in Wisconsin be approved as listed, for addition to the State Parks System under Chapter 27, Wisconsin Statutes.

APPROVED:

S. W. Welsh 5/1/74
Mr. Welsh Administrator Date

Mr. Beale Administrator Date

Secretary L. P. Voigt Date

Signed:
D. Weizenicker
D. L. Weizenicker, Assistant Direct
Bureau of Parks and Recreation

cc: Miss Korn
E. J. Faber
D. W. Konkol
M. E. Reinke



BOARD CIRC 5/2/74

## APPENDIX B

## GEOLOGY AND GLACIATION

Glacial features of the park were greatly affected by the advances and retreats of the Wisconsin stage of glaciation. A simultaneous advance of the Superior lobe and Grantsburg sublobe blocked the original route of the St. Croix River, which resulted in the formation of Glacial Lake Grantsburg and caused the eastward displacement of the St. Croix River (Cahow, unpublished).

Valley cutting in the Dalles area began after the margin (edge) of the Grantsburg sublobe has receded slightly from its maximum advance and the St. Croix began drainage southward along the ice margin. Glacial ice to the west prevented the river from reoccupying its former course, forcing formation of a new river valley. About 14,000 years ago glacial Lake Grantsburg completely drained through the St. Croix River, deepening its new valley. Further melting of the glaciers and drainage of several proglacial lakes began the carving of the Dalles. The drainage of large quantities of water from Glacial Lake Duluth, through its major outlet, the Brule-St. Croix outlet, resulted in the greatest amount of cutting of the gorge during the formation of the Dalles (Cahow, unpublished).

The gorge is cut into Precambrian basalt, of which seven individual flows have been identified. Thickness of each flow commonly ranges between 30 and 60 feet. The eastern edge of each flow can be recognized as a distinct bench. Potholes were formed primarily on the lowest of these benches just above the present level of the river. It is believed that these potholes, circular and irregular depressions in rock, were produced by silt, sand and gravel in swirling eddies which were caused by the large quantity of glacial meltwater flowing down the gorge. Potholes are located on both sides of St. Croix's riverbank with those on the Minnesota side being much larger and deeper than those on the Wisconsin side. Minnesota's potholes attain depth of 60 to 80 feet and are 15 to 25 feet in diameter, while Wisconsin's potholes are up to 15 feet deep and 6 to 10 feet in diameter (Cahow, unpublished).

Unusual rock projections, including two which are referred to as Old Man of the Dalles and Devil's Chair, were formed from the lava layers. The lava's well-jointed character permitted erosion forces to form the unusual rock features (Cahow, unpublished).

Appendix C

LIST OF FLORA

Oak-pine forest type, which is typical of northern dry forests covers approximately one-quarter of the park. Located in the eastern portion, the oak-pine forests are basically composed of several different species of mature oak including white oak, northern pin oak, bur oak and red oak and two species of conifers, red pine and white pine. Less common tree species include yellow birch, bitternut hickory, ironwood, and basswood. The large majority of white pine has a diameter of less than 11 inches.

Areas of nearly pure pine are present within the park, including approximately 60 acres of red pine and white pine found in the east-central portion of the unit and along the bluffs of the St. Croix River. Most individual white pines have a diameter of 5 to 11 inches, however, one stand is considerably larger with most individuals having a diameter of over 15 inches. Many pines are found growing north of Lake O'The Dalles in cracks and fissures of the rocks.

The eastern portion of the park is composed of scattered areas of northern hardwoods with sugar maple the predominant species. Other tree species found in the upland mesic northern hardwood areas are yellow birch, bitternut-hickory, white ash and basswood. The diameter for most of the trees in these areas range from 5 to 11 inches.

Bottomland hardwoods including American elm, butternut, green ash, hackberry, silver maple, rock elm and quaking aspen are located along much of the St. Croix River. The mature bottomland forest in the southern portion of the park and associated wetlands could be considered to be an uncommon plant community in the state. Most individual trees have a diameter of 11 to 15 inches. Mortality, due to Dutch elm disease, is occurring in these areas and is expected to increase.

A small area dominated by elm in the southeastern portion of the park is also infected with Dutch elm disease. Other minor cover types include two small areas of aspen and an area of lowland brush.

Moisture conditions, ranging from wet along the St. Croix River to arid in some of the bluffs and eastern upland areas, result in a rich diversity of herbaceous and understory plant species. Over 400 species of plants are present. Common understory species present in the unit include poison ivy, fleabane, wild bergamot and bittersweet. Four rare and endangered species grow in Interstate Park Unit. Two are threatened

species, birdseye-primrose (Primula mistassinica) and brittle prickly pear cactus (Opuntia fragilis) and two are endangered species, cathcart's Woodsia fern (Woodsia oregana var. cathcartiana) and fragrant fern (Dryopteris fragrans var. remotiuscula). In addition, an uncommon species occurs, hairy lip-fern.

A variety of unusual herbs and mosses, with only a minor covering of scrub black oaks, occur in areas of exposed rock outcrops in the northwest part of the park. Several unusual grasses, mosses, herbs and water plants are associated with one-acre and smaller ponds, found in the rock outcrop areas these ponds fill by rain and runoff and drain or evaporate during dry periods.

Aquatic vegetation in the St. Croix is abundant in the impoundment above the dam by St. Croix Falls, however, vegetation is generally lacking in the river channel. Wild celery and river pondweed are the only aquatic plant species found in the channel. Bottom-rooted vegetation occurring in the Lake O'the Dalles includes water lily and coontail. Both filamentous and planktonic algae are present and problem algae blooms have occurred.

APPENDANT NO. 1
TREE SPECIES IDENTIFIED IN INTERSTATE PARK
By Pohl, Barnard and Loeffler - 1940-74

| Tree | Scientific Name | Abundance and Location |
|---|---|---|
| Red Maple | Acer rubrum L. | Fairly common - bottomlands and moist woodlands |
| Box Elder | Acer negundo L. | Low areas - occasional |
| Sugar Maple | Acer saccharum | Upland areas - very dominant. One of the most important trees in the park. |
| Black Sugar Maple | Acer saccharum var. nigrum | Few found around Sunset Beach |
| Silver Maple | Acer saccharinum L. | Common - low areas and river bottoms |
| Paper Birch | Betula alba L. Var. papyrifera | Occasional |
| Yellow Birch | Betula lutea michx. F. | Common |
| Blue Beech | Carpinus caroliniana | Moist woodlands - common |
| Ironwood-hop Hornbeam | Ostrya virginiana | Common - woodlands |
| White Oak | Quercus alba | Common |
| Northern Pin Oak | Quercus ellipsoidalis | Dry upland - common |
| Bur Oak | Quercus macrocarpa | Very common on dry upland |
| Red Oak | Quercus rubra | Common - dryer uplands |
| Witch Hazel | Hamamelis virginiana | Few in uplands south of camp |
| Bitter Nut Hickory | Carya cordiformis | Upland woods - fairly common |
| Butternut | Juglans cinerea | Occasional in Dalles area and woods along St. Croix River |
| Black Walnut | Juglans nigra | Planted along Sky Line Rd. - |
| Black Locust | Robinia pseudo-acacia | One tree in burrow pit - south of park entrance |
| White Ash | Fraxinus americana | Uplands - east line fence - south of Mt. Meadow |

| | | |
|---|---|---|
| Black Ash | Fraxinus nigra | Common in low areas near St. Croix River |
| Red Ash | Fraxinus pennsylvanica | Scattered - low areas |
| Green Ash | Fraxinus pennsylvanica var. lanceolata | Low areas - fairly common |
| Balsam Fir | Abies balsamea | Few - south of fish ponds and above service building |
| Juniper | Juniperus communis | Common - rocky ledges |
| Red Cedar | Juniperus virginiana | Common - rocky areas |
| White Spruce | Picea canadensis | Fairly common - planted 1938 |
| Jack Pine | Pinus banksiana | Very few - north of camp near Lake of Dalles |
| Red Pine | Pinus resimosa | Few - on cliffs at the Dalles area |
| White Pine | Pinus strobus | Dominant in Dalles area and rock uplands |
| Scotch Pine | Pinus sylvestris | Few - planted |
| White Cedar | Thuja occidentalis | Few - on cliff above beach |
| Balsam Poplar | Populus balsamifera | Marsh north of the Mt. meadow |
| Cottonwood | Populus deltoides | Several trees along river in the north end of the park |
| Large-Toothed Aspen | Populus grandidentata | Common |
| Quaking Aspen | Populus tremuloides | Common - thickets in low area |
| Basswood | Tilia americana | Everywhere - not in pure stand |
| American Elm | Ulmus americana | Common - lowlands |
| Slippery Elm | Ulmus rubra | Occasional |
| Rock Elm | Ulmus thomasii | Not many - north end, near river |

APPENDANT NO. 2
SHRUB SPECIES IDENTIFIED IN INTERSTATE PARK
By Pohl, Barnard and Loeffler - 1940-1974

| Shrub | Scientific Name | Abundance and Location |
|---|---|---|
| Smooth Sumac | Rhus glabra L. | Common in meadow north of camp - elsewhere occasional |
| Staghorn Sumac | Rhus typhina L. | Common - around fields, etc. |
| Black Alder | Ilex verticillata L. (Gray) | Low areas - common |
| Speckled Alder | Alnus incana | Swamps near lake and high meadow |
| Hazelnut | Corylus americana | Common - south end of park |
| Common Elder | Sambucus canadensis | Near hatchery and along St. Croix River - not too common |
| Red-berried Elder | Sambucus racemosa | Open woods - common |
| Pagoda Dogwood | Cornus alternifolia | Occasional - woods |
| Bunchberry | Cornus canadensis | North of Dalles - west side of landing trail |
| Round-leaved Dogwood | Cornus rugosa | Occational - woods |
| Panicled Dogwood | Cornus paniculata | Very common - woods |
| Red Osier Dogwood | Cornus stolonifera | Low areas around Lake of the Dalles |
| Common Lilac | Syringa vulgaris | Clump near old foundation along park road |
| Wild Plum | Prunus nigra | Occasional - pothole area |
| Pin Cherry | Prunus pennsylvanica | Common - rocky slopes around south park |
| Sand Cherry | Prunus pumila | Scattered - north of old quarry - near Peak also |
| Black Cherry | Prunus serotina | Common - good. Soil areas - south end of park. |
| Choke Cherry | Prunus virginiana | Common - woods, rocky slopes |

| | | |
|---|---|---|
| Purple Chokeberry | Aronia prunifolia | Near creek south of hatchery, low areas - occasional. |
| American Crab, Sweet Crab | Pyrus coronaria | North end of park |
| Northern Mountain Ash | Sorbus americana | Very few - along St. Croix in Devil's Icebox |
| Wild Rose | Rosaceae | Meadowland and thickets near the Lake of the Dalles |
| Prickly Ash | Zanthoxylum americanum | Fairly common - in woods |
| Thorn Apple | Crataegus sp. | Fairly common |
| Hackberry | Celtis occidentalis | Common in lowlands along St. Croix River |
| Bear-berry | Arctostaphylos uva-ursi | Common - near Lake of the Dalles |
| Wahoo | Euonymus atropurpureus | Small - colony in river bottoms, southwest of camp |
| Black Hawthorn | Crataegus L. | Common - fairly |
| Cranberry Tree | Viburnum opulus americanum | Planted along Skyline Road, 1941 - fairly common - moist sites |
| Nannyberry | Viburnum lentago | Occasional - low areas |
| Prickly Pear | Opuntia ficus-indica | Rocky slopes close to St. Croix Cummit of South Peak |

APPENDANT NO. 3
HERBACEOUS PLANT SPECIES IDENTIFIED IN INTERSTATE PARK
By Pohl, Barnard and Loeffler - 1940-1974

| Plant | Scientific Name | Abundance and Location |
|---|---|---|
| Poke Milkweed | Asclepias phytolaceoides pursh. | Few plants along the park road. |
| Common Milkweed | Asclepias syriaca L. | Not very common |
| Spotted Touch-Me-Not | Impatiens biflora walt. | Common - wet low areas |
| Pale Touch-Me-Not | Impatiens pallida | Less common than spotted touch-me-not - low wet areas |
| Marsh Bluebell | Campanula aparinoides pursh | Marsh near park road at south end of park |
| Harebell | Campanula rotundifolia | Common everywhere |
| Venus's Looking-Glass | Specularia perfoliata | A few near the old quarry |
| Bush Honeysuckle | Diervilla lonicera | Common - woodlands |
| Honeysuckle | Lonicera dioica | Occasional - woods |
| Hairy Honeysuckle | Lonicera hirsuta | Occasional - one specimen at south end of picnic knoll at Lake of the Dalles |
| Trumpet Honeysuckle | Lonicera sempervirens | Common |
| Snowberry | Symphoricarpos vacemosus michx., var. Pauciflorus robbins | Dry woods - north of Lake of the Dalles - Fairly common - So. Peak also |
| Downy Arrow Wood | Viburnum pubescens pursh | Occasional - woods |
| Bouncing Bet. | Saponavia officinalis L. soapwort | Along road south of hatchery |
| Sleepy Catchfly | Silene antirrhina | Around camp |
| Chickweed | Stellaria longifolia | Common - woods and rocky slopes |
| Carpet Weed | Mollugo verticillata L. | Very common around camp and on sandy beaches along the St. Croix River |

| | | |
|---|---|---|
| Water Plantain | Alisma plantago - aquatica L. | Marsh south end of park - also common along river and creek |
| Arrow Head | Sagittaria latafolia | Wet areas southern end of park near river |
| Pigweed | Amaranthus retroflexus L. | Around camp |
| Poison Ivy | Rhus toxicodendron L. | Common |
| Staghorn Sumac | Rhus typhina L. | Common - around fields, etc. |
| Spreading Dogbane | Apocynum androsaemifolium L. | Common |
| Indian Hemp | Apocynum cannabinum L. | Wet areas near Lake of the Dalles |
| Sweet Flag | Acorus calamus L. | Common in marsh area near river at south end of park |
| Jack-in-the-Pulpit | Arisaema triphyllum | Moist woods |
| Water Arum | Calla palustris L. | Colony in a swamp in Echo Canyon |
| Skunk Cabbage | Symplocarpus foetidus L. | Fairly common - wet areas |
| Wild Sarsaparilla | Aralia nudicaulis L. | Common in woods |
| Ginseng | Panax quinquefolium L. | Scattered - usually associated with basswood |
| Wild Ginger | Asarum canadense L. | Moist woods - around fish hatchery |
| Swamp Milkweed | Asclepias incarnata L. | Fairly common around swamps and wet places |
| Daisy Fleabane | | Dry rocky places - dry woods |
| Boneset | | Common - swamps and around fish hatchery |
| Joe-Pye Weed | | Common - low areas |
| White Snakeroot | | Common - damp places in woods |
| Sweet Everlasting | | In gravel pit - old quarry - dry sites |
| Sneeze Weed | | Common - along river and marshes |
| Sunflower | | Hillside around fish hatchery |
| Rough Ox-Eye | | Common - edges of woods |

| | | |
|---|---|---|
| Wild Lettuce | | Occasional - Open woods in lowlands |
| Tall Blazing Star | | One west of Eagle Peak - above Sm. Quarry |
| White Lettuce | | Occasional - fish hatchery and damp woods |
| Black-eyed Susan | | Common - dry areas and rocky slopes |
| Cone-Flower | | Common - woods and roadsides |
| White Golden-Rod | | Scattered openings |
| Golden Rod | | Fairly common - thickets |
| Zigzag or Broad-Leaved Golden-Rod | | Few south of workshop |
| Wide-Leaf Goldenrod | | Common - damp areas in woods and thickets |
| Dandelion | | Common - camp and along roadsides |
| Ironweed | | Scattered - open woods and meadow |
| Cocklebur | | Common - along river and creeks |
| Hedge Bindweed | | Common - low grounds |
| Dodder | | Fairly common - wet areas |
| Ditch Stonecrop | | Fairly common - marsh north of Mt. Meadow |
| | Berteroa incana DC | Weed - occasional along road |
| Black Mustard | | Scattered |
| Bittersweet | Celastrus scandens | Woods - especially Lake of the Dalles area |
| Lamb's Quarters | Chenopodium album | Around camp, etc. |
| Maple-Leaved Goosefoot | Chenopodium hybridum | Scattered |
| Russian Thistle | | Along Hwy 8 park road entrance |
| Day-Flower | | On bank behind old residence |
| Spiderwort | | Occasional - Lake Dalles and St. Croix River |
| Yarrow | | A plant around camp and road - not numerous |

| | |
|---|---|
| Smaller Ragweed | Common around camp and park road |
| Great Ragweed | Low area - east edge of marsh - south line fence |
| Pearly Everlasting | Occasional - dry sites on landing trail |
| May Weed | A weed around camp |
| Common Burdock | Occasional - around camp |
| Swamp Aster | Common - swamps and wet areas |
| Stick-Tights | Numerous along the creek |
| Beggar-Ticks | Common along creek |
| Boltonia | Occasional along river |
| Canada Thistle | Few - around camp |
| Bull Thistle | Scattered - low areas |
| Swamp Thistle | Wet hillside at fish hatchery; also swamp south end of park |
| Coreopsis | Scattered - rocky slopes - south peak |
| Fireweed | One colony along river near south end |
| Horseweed | Weed around camp and road |
| Fleabane | Common |
| Shepherd's Purse | Occasional |
| Robinson Horseradish | Few - old foundation, Lake Dalles beach |
| Water Cress | Brooks around fish hatchery |
| Wild Cucumber | Common - swamps south end of park |
| Galingale | Common - along creek and river |
| Nut Grass | In sloughs near creek |
| Spike Rush | River and marsh and creek - edge of Lake of the Dalles |

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|---|---|
| Gray River Bulrush | Numerous - south end of park |
| Pullus Fernald | Occasional - swamps |
| Great Bulrush | Few along creek and near fish hatchery |
| Wild Yam-Root | Common - thickets |
| Common Horsetail | Common |
| Scouring Rush | Low areas - along creek and along river |
| Wood Horsetail | Woods - especially between camp and lake |
| Pipsissewa | Rare - wooded slopes at east edge of park |
| Indian Pipe, Corpse Plant | Rare - few along south line boundary |
| Velvet-Leaf Blueberry | Not common - woods |
| Early Sweet Blueberry | Common on dry rocky slopes |
| Three-Seeded Mercury | Fairly common - camp and Lake of Dalles |
| Flowering Spurge | Few - woods around south peak |
| Creeping Spurge | Along the park road and around camp |
| Prostrate Spurge | Common - banks along St. Croix River |
| Pale Corydalis | Occasional - rocky slopes |
| Closed Gentian | Few - colony along roadside - Lake of Dalles |
| Cranesbill Wild Geranium | Common - woods |
| Quack Grass | Common |
| Blue Joint Turkeyfoot | Common - around Lake Dalles |
| Smooth Brome | Occasional - along park road south end of park |
| Sandbur Grass | Occasional |
| Poverty Oatgrass | Dry slopes in oak woods - south of camp |

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|---|---|
| Crabgrass | Camp and around Lake of Dalles dam |
| Barnyard Grass | Common - along creek and river |
| Heller | Occasional - wet places |
| Wild Rye | Few - woods |
| Stink Grass | Around camp |
| Battle Brush Grass | Occasional - woodlands |
| Rice Grass | Dry oak woods - south of camp |
| Timothy | Common |
| Swallen False Melic | Fairly common - oak woods south of camp |
| Yellow Foxtail | Common around camp |
| Prairie Cord Grass | Common |
| Eel Grass | In shallows of St. Croix River |
| Waterleaf | Common - moist woodlands |
| Great St. John's Wort | Few - lowland woods south of camp |
| Rush | Common - low grounds |
| Common Hemp Nettle | South of fish hatchery reservoir |
| Common Mother Wort | Not common |
| American Water Horehound | Common - wet areas and marsh |
| Bugle Weed | Wet areas and along creek |
| Field Mint | Common - marshes at south end of park |
| Wild Bergamot | Common |
| Catnip | Not common - near the fish hatchery |
| Ground Ivy | Along fish hatchery road |
| False Dragon Head | Fairly common - along river and marshes |
| Heal-All | Few - around fish hatchery |

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|---|---|
| Mad-Dog Skullcap | Common - marshy wet areas |
| Hedge Nettle | Woods |
| American Germander | Near St. Croix River - south end of park |
| Lead Plant | Fairly common - dry areas, woods and along Lake of Dalles |
| False Indigo | Lake of Dalles - few along St. Croix River near beach |
| Wild or Hog Peanut | Common along Skyline Road and in moist woods |
| Alfalfa | Scattered - along roads |
| Large-bracted Tick Trefoil | Occasional in dense woods |
| Wh. Sweet Clover | Along roads |
| Yellow Sweet Clover | Along park road |
| Wild Bean | Common along Skyline Road and in moist woods |
| Alsike Clover | Common |
| Red Clover | Camp and park road |
| White Clover | Camp and park road |
| Cow Vetch | Common - sandy sites; also in meadow |
| Duckweed - Duck's Meat | On pools and spring holes |
| Wild Garlic | Around lake |
| Wild Leak | Occasional - woods |
| Asparagus | Scattered |
| Climbing False Buckwheat | Occasional in moist areas |
| Clintonia Borealis | Cool - moist places in canyons |
| Common Day Lily | Colony east of road at the Mt. Meadow culvert |
| Turk's-Cap Lily | Scarce - in woods and around Mt. Meadow |
| Canada Mayflower | Damp woods and in canyons |

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|---|---|
| Oakesia | Moist woodlands |
| Solomon's Seal | Not too common |
| Gt. Solomon's Seal | Occasional - woods |
| False Solomon's Seal | Generally distributed in woods |
| Star-Flowered False Solomon's Seal | Sandy areas near St. Croix River |
| Carrion Flower | Common - woods |
| Hispid Green Briar | Occasional - woodlands |
| Nodding Trillium | Moist woods |
| Lg. Flowering Trillium | Common - woods |
| Bellwort | Woodlands |
| Cardinal Flower | Occasional - along river and smaller water areas |
| Indian Tobacco | Few - Lake Dalles area |
| Great Lobelia | Few around fish hatchery; numerous along Mt. Meadow Brook |
| Spiked Lobelia | Low areas - few around park buildings |
| Common Mallow, Cheeseweed | Near road above fish hatchery |
| Sweet Heart Leaf Umbrella Wort | Dalles area and dry upland - occasionally |
| Enchanter's Night-Shade | Common - especially around fish hatchery |
| Fireweed | Scattered - wood lands |
| False Loosestrife | Upland swamp north of South Peak |
| Common Evening Primrose | Occasional |
| Evening Primrose | Few - around Lake of the Dalles |
| Rattlesnake Fern | On meadow canyon trail |
| Lady's Slipper, Moccasin Flower | Rare - moist ground, heads of gullies |
| Rattlesnake Plantain | Occasional in rich woods |
| Lg. Purple Fringed Orchis | Few - swampy area on north end near river |

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|---|---|
| Interrupted Fern | Common - low areas near Lake of the Dalles |
| Flowering Fern | Swamp north of camp, near Lake of the Dalles |
| Wood Sorrel | Fairly common - around camp and at edge of woods |
| Violet Wood Sorrel | Scattered in open areas on rocky slopes - south peak |
| Bloat Root | Wood land areas |
| Lopseed | Occasional - found in moist woods |
| English Plantain, Rib Grass | Few - around camp |
| Common Plantain | Common |
| Wild Phlox | Occasional - dry oak woods south of camp |
| Water Smartweed | Wet areas, especially along creek |
| Knotweed | Around camp and along roadsides |
| Polygonum Cilinode | Common - lowland areas |
| Black Birdweed | Roadside near the hatchery |
| Arrow-Leaved Tear-Thumb | Common - swamp at south end of park |
| Curly Dock | Occasional - along roads and around camp |
| Dock | Occasional - lowland areas |
| Bitter Dock | Few - along lower fish hatchery road |
| Swamp Dock | Scattered - wet areas |
| Maidenhair Fern | Most common fern here - wooded areas |
| Shield Fern | Marshes around Lake of Dalles - wet slope at fish hatchery |
| Lady Fern | Around fish hatchery and elsewhere |
| Walking Fern | Generally rare; however, common north slope of rocks - south shore of Berger's Lake |

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|---|---|
| Bladder Fern | On Skyline Trail |
| Sensitive Fern | Common in moist areas |
| Ostrich Fern | Fairly common - south edge of Mt. Meadow and low areas |
| Cliff Brake | Few - sandstone ridge west of park road at south end |
| Bracken Fern | Common - on Skyline Road |
| Spring Beauty | Fairly common - associated with dog-toothed violet |
| Common Purslane | Common - around camp |
| Talinum | Horizon Rock - rocky slopes west of South Peak |
| Loosestrife | Swamp north of South Peak |
| Fringed Loosestrife | Common - creek and the St. Croix River |
| Red Baneberry | Common - woods |
| Canada Anemone | Common - low ground |
| Wood Anemone, Wind Flower | Common in rich woods |
| Thimbleweed | Occasional - woods |
| Rue Anemone | Common in dense woods |
| Wild Columbine | Common - open woods |
| Marsh Marigold | Fairly common - damp, moist areas |
| Blue Cohosh | Common - woods |
| Virgin's Bower | Few - mostly in north end of park |
| Dwarf Larkspur | Rare - dry slopes, south peak |
| Dutchmen's Breeches | Not plentiful - rocky slopes |
| Sharp-Lobed Hepatica | Common - woods |
| Hepatica | Common - moister woods |
| T & G | Common - woodlands |
| Bristly Crowfoot | Wet areas, along brook at Mt. Meadow |

| | |
|---|---|
| Late Meadow Rue | Common - woods |
| Early Meadow Rue | Common - woods |
| Tall Meadow Rue | Common in meadow lands |
| New Jersey Tea | Woods, especially near the Lake of Dalles |
| Agrimony | Not common |
| Juneberry, Shadberry, Service Berry | Fairly common - in openings |
| White Baneberry, White Cohosh | In woods, along Skyline Road |
| Dotted Haw | Occasional - openings and pastures in area |
| Wild Strawberry | Common - woods along park road |
| Avens | Common - woods around camp |
| Geum Strictum Ait | Around camp in thickets |
| Nine-Bark | Common - woods, rocky slopes |
| Silvery Cinquefoil | Patch along park road south of camp |
| Cinquefoil | Common - dry, rocky slopes |
| Rough Cinquefoil | Weed about camp |
| Smooth Rose | Common - woods and fields |
| Common High-Bush Blackberry | Field near camp, less common in woodlands |
| Common Dewberry | Along the park road and rarely elsewhere |
| Wild Red Raspberry | Common |
| Meadow-Sweet or White Spiraea | Common in south end of park in wet areas |
| Buttonbush | Swamp north of Lake of the Dalles - not many |
| Goose Grass | Common in all but the driest woods |
| Northern Bedstraw | Common in woods |
| Houstonia Longifolia | Not many, rocky slopes, South Peak |

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|---|---|
| Alum Root | Occasional - rocky areas |
| Bishop's Cap or Mitrewort | Wooded areas |
| Swamp Saxifrage | Ditch along park road, edges of Mt. Meadow |
| Turitehead | Wet slope around fish hatchery |
| Clammy False Foxglove | Few - dry slopes at top of hills |
| Slender Gerardia | Occasional - moist river banks, around creek and lakes |
| False Pimpernel | Common - open, wet areas, along creek and river |
| Toadflax, Butter and Eggs | Few - along the St. Croix River |
| Monkey Flower | Fairly common - wet areas, along the St. Croix River |
| Figwort | Common - open areas in woods |
| Mullein | Along the park road and around camp |
| Culver's Root | Common in fields and open woods |
| Rock Selaginella | Common - rocky areas |
| Ground Cherry | Occasional - open areas and grassy places |
| Black Nightshade | Common |
| Great Bur-Reed | Common - marsh near St. Croix River, south end of park |
| Bladdernut | Common - moist areas south of mountain |
| Common Cat-Tail | Few - wet areas south of fish hatchery |
| Angelica | Occasional - wet slopes near fish hatchery |
| Water Hemlock | Fairly common - wet places |
| Honewort | Woods |
| Hairly Sweet Cicely | Common - wooded areas |
| Sweet Cicely | Less common - wooded areas |

| | |
|---|---|
| Clustered Snakeroot | Common - wooded areas |
| Golden Alexanders | Common - open areas in woods |
| Common Hops | Common |
| Wood Nettle | Numerous - in large colonies |
| Clearweed | Common - wet areas |
| Slender Nettle | Common - large colonies |
| Blue Vervain | Common - fields and swamps |
| White Vervain | Not common - wet areas |
| Virginia Creeper - Five Leaf Ivy | Common |
| Fox Grape, Frost Grape | Common |
| Dune Grape | Few - rocky knoll west of Rock Creek |
| Stickseed | Few along east boundary of park |

# APPENDIX D

# LIST OF WILDLIFE

The upland forests and open areas along the eastern edge of the park offers some interesting plant communities. The semi-open areas contain clumps of sumac, juniper, cacti and other plants normally found in undisturbed areas. These areas are most likely abandoned fields; however, they contain many species of shrubs and are excellent wildlife habitat as well as having an excellent scenic value.

2. Wildlife Habitat Potential of the Area

The overall game values of the park are not exceptional, mainly because of the mature forest; however, it offers sufficient plant diversity to be good overall wildlife habitat when one is considering all species of birds and mammals. The southern part of the park is the best game habitat and, of course, the best all-around wildlife habitat.

The areas shown on the base map prepared by the forester show the river, sloughs, potholes and associated wetlands so valuable to wildlife. These areas should be protected from any development except possibly trails. In and around these areas is where you can expect to find species such as beaver, mink, otter, muskrats and many species of birds, especially waterfowl.

3. Primary mammal species found in the project area listed below and relative abundance:

| | |
|---|---|
| White-tailed deer - common | Red & grey squirrels - common |
| Beaver - common | Fox squirrels - occasional |
| Muskrats - common | Red & grey fox - common |
| Raccoon - common | Chipmunk - common |
| Woodchucks - common | Cottontails - common |
| Mink - occasional | Otter - occasional |
| N. flying squirrel - occasional | Bobcat - rare |
| Striped skunk - common | Civet skunk - rare |
| Hoary bat - rare | Red bat - rare |
| Silver-haired bat - rare | |

Game birds that frequent the area are: Ruffed grouse - common, woodducks - common, mallard - common, and occasionally other species of waterfowl.

Amphibians and reptiles that are known to inhabit the project area are:

| | |
|---|---|
| Tiger salamander | Green frog |
| Blue spotted salamander | Leopard frog |
| Red-backed salamander | Gray tree frog |
| Chorus frog | Spring peeper frog |
| American toad | Wood frog |
| Fox snake | Eastern garter snake |
| Red-bellied snake | Smooth green snake |
| Northern ring-necked snake | Painted turtle |
| Snapping turtle | Spring soft-shelled turtle |

And there are most likely other species that frequent the project area.

4. Birds Found in the Park

Because of the habitat diversity and many micro-habitats found in the park, a great variety of birds are found as shown on a list (Appendant #4) recorded by Pazderski in 1974. I am sure that some of the rare and unique species are not listed simply because their uniqueness and rarity in the first place makes it difficult to discover them without a detailed survey.

Pazderski's list contains over one-hundred birds observed in the park. Of these, some of the more interesting species are the bald eagle, which is a fairly common visitor as the eagle migrates through this area in the spring and fall and actually roosts along the St. Croix River all winter. The red-shouldered hawk has been observed in the park and is no doubt nesting nearby. Pileated woodpeckers seem to be residents of the park, as observations are very frequent and many of the white pines have the characteristic large squared-off holes chiseled in them.

Some of the common species found in the area are birds like the mallard and woodduck, which are summer residents, and the ruffed grouse, which is very common in the park. The bald eagle, of course, is sited quite commonly along the river compared to other parts of the state. Doves, woodpeckers, various species of sparrows, grosbeaks, chickadees, nuthatches, waxwings, warblers, blue jays and orioles are some of the common birds sited in the park boundary. See the attached bird list for other species observed in the park and relative abundance.

5. Uncommon Wildlife Features Existing in the Park

Probably the most common uncommon feature of the area would be the fact that the park, most years, is used as a deer yard or wintering area. The southern part of the park is used most years; however, in 1963 serious browsing was caused by yarded deer in the north part of the park area. However, most years that the winter is severe enough for deer to yard they can be found in the southern end of the park.

Rare and endangered species known to utilize the area are: Woodchucks, otter, hoary bat, red bat, silver-haired bat, northern flying squirrels, bald eagle, pileated woodpecker, red-shouldered hawk, winter wren and most likely other species not known at this time.

6. Game Management Activities in the Park

The white-tailed deer is the only game species of any significance presently inhabiting the area. The deer population is presently quite high (20-25 per square mile); and, of course, the winter yarding condition compounds the deer population in the winter months.

The ruffed grouse, rabbit, squirrel, furbearers, etc. classed as game birds and animals are all of a rather insignificant value, especially when one considers the fact that hunting is not allowed in the park except in deer season and then only for deer. The aesthetic value of having these game animals in the park is very high, especially when one considers the large number of people using the park area.

Deer hunting started in the park in 1972 because of the high deer population and the damage to native plants, and success has been very good with no apparent problems. The southern part of the park is hunted the most and, of course, has the highest deer population. Hunting should be continued to keep the deer herd at a manageable level, especially with the rare and diverse plant communities found within the park boundaries. The park currently has no wildlife management plans or policies, and about all that has been done is woodduck nesting boxes and bird feeding.

APPENDANT NO. 4

CHECKLIST OF BIRDS FOUND AT INTERSTATE PARK

By Norman Pazaerski on May 7, 1974

| Common Name | Scientific Name | Status |
|---|---|---|
| Common Loon | Gavia immer | Common summer visitor |
| Pied-billed Grebe | Podilymbus podiceps | Common summer visitor |
| Blue Goose | Chen caerulescens | Common transient |
| Snow Goose | Chen hyperborea | Common transient |
| Mallard | Anas platyrhynchos | Common summer visitor |
| Wood Duck | Aix sponsa | Common summer visitor |
| Marsh Hawk | Circus cyaneus | Uncommon summer visitor |
| Red-tailed Hawk | Buteo jamaicensis | Uncommon summer visitor |
| Red-shouldered Hawk | Buteo lineatus | Uncommon summer visitor |
| Rough-legged Hawk | Buteo lagopus | Uncommon summer visitor |
| Golden Eagle | Aquila chrysaetos | Uncommon transient |
| Bald Eagle | Haliaeetus leucocephalus | Uncommon summer visitor |
| Osprey | Pandion haliaetus | Uncommon summer visitor |
| Sparrow Hawk | Falco sparverius | Common summer visitor |
| Ruffed Grouse | Bonasa umbellus | Common resident |
| Killdeer | Charadrius vociferus | Common resident |
| American Woodcock | Philhela minor | Uncommon transient |
| Herring Gull | Larus argentatus | Common summer visitor |
| Ring-billed Gull | Larus delawarensis | Uncommon summer visitor |
| Bonaparte's Gull | Larus philadephia | Uncommon summer visitor |
| Broad-winged Hawk | Buteo platypterus | Uncommon summer visitor |
| Blue-winged Teal | Querquedula discors | Common summer visitor |
| Hooded Merganser | Lophodytes cucullatus | Uncommon summer visitor |

| | | |
|---|---|---|
| Rock Dove | Columba livia | Common summer visitor |
| Mourning Dove | Zenaidura macroura | Common summer visitor |
| Black-billed Cuckoo | Coccyzus erythropthalmus | Uncommon summer visitor |
| Short-eared Owl | Asic flammeus | Uncommon summer visitor |
| Barred Owl | Strix varia | Uncommon summer visitor |
| Common Nighthawk | Chrdeiles minor | Uncommon summer visitor |
| Hairy Woodpecker | Dendrocopos villosus | Common resident |
| Downy Woodpecker | Dendrocopos pubescens | Common resident |
| Red-headed Woodpecker | Melanerpes erythrocephalus | Uncommon resident |
| Pileated Woodpecker | Dryocopus pileatus | Uncommon resident |
| Yellow-shafted Flicker | Colaptes auratus | Common summer visitor |
| Red-bellied Woodpecker | Centurus carolinus | Uncommon summer visitor |
| Yellow-bellied Sapsucker | Sphyrapicus varius | Uncommon summer visitor |
| Chimney Swift | Chaetura pelagica | Uncommon summer visitor |
| Ruby-throated Hummingbird | Archilochus colubris | Uncommon summer visitor |
| Belted Kingfisher | Megaceryle alcyon | Common summer visitor |
| Eastern Kingbird | Tyrannus tyrannus | Common summer visitor |
| Eastern Phoebe | Sayornis phoebe | Common summer visitor |
| Eastern Wood Pewee | Contopus virens | Uncommon summer visitor |
| Horned Lark | Eremophila alpestris | Common summer visitor |
| Barn Swallow | Hirundo rustica | Common summer visitor |
| Cliff Swallow | Petrochelidon pyrrhonota | Common summer visitor |
| Tree Swallow | Iridoprocne bicolor | Common summer visitor |
| Bank Swallow | Riparia riparia | Common summer visitor |
| Rough-winged Swallow | Stelgidopteryz ruficollis | Common summer visitor |

| | | |
|---|---|---|
| Purple Martin | Progne subis | Common summer visitor |
| Blue Jay | Cyanocitta cristata | Common resident |
| Common Crow | Corvus brachyrhynchos | Common resident |
| Black-capped Chickadee | Parus atricapillus | Common resident |
| White-breasted Nuthatch | Sitta carolinensis | Common resident |
| Red-breasted Nuthatch | Sitta canadensis | Uncommom resident |
| Brown Creeper | Certhia familiaris | Uncommon summer visitor |
| House Wren | Troglodytes aedon | Uncommon summer visitor |
| Winter Wren | Troglodytes troglodytes | Uncommon winter resident |
| Catbird | Dumetella carolinensis | Common summer visitor |
| Robin | Turdus migratorius | Common summer visitor |
| Swainson's Thrush | Hylocichla ustulata | Common summer visitor |
| Eastern Bluebird | Sialia sialis | Uncommon summer visitor |
| Blue-gray Gnatcatcher | Polioptila caerulea | Uncommon summer visitor |
| Ruby-crowned Kinglet | Regulus calendula | Uncommon summer visitor |
| Cedar Waxwing | Bombycilla cedrorum | Common summer visitor |
| Starling | Sturnus vulgaris | Common resident |
| Black-and-white Warbler | Mniotilta varia | ? |
| Nashville Warbler | Vermivora ruficapilla | ? |
| Yellow Warbler | Dendroica petechia | ? |
| Myrtle Warbler | Dendroica coronata | Uncommon summer visitor |
| Cerulean Warbler | Dendroica cerulea | ? |
| Magnolia Warbler | Dendroica magnolia | ? |
| Palm Warbler | Dendroica palmarum | ? |
| Northern Waterthrush | Seiurus noveboracensis | ? |
| American Redstart | Setophaga ruticilla | Uncommon summer visitor |

| | | |
|---|---|---|
| House Sparrow | Passer domesticus | Common Resident |
| Eastern Meadowlark | Sturnella magna | Common summer visitor |
| Red-winged Blackbird | Agelaius phoeniceus | Common summer visitor |
| Common Grackle | Quiscalus quiscula | Common summer visitor |
| Brown-headed Cowbird | Molothrus ater | Common summer visitor |
| Baltimore Oriole | Icterus gabula | Uncommon summer visitor |
| Scarlet Tanager | Piranga olivacea | Common summer visitor |
| Cardinal | Richmondena cardinalis | Uncommon winter visitor |
| Rose-breasted Grosbeak | Pheucticus ludovicianus | Common winter visitor |
| Evening Grosbeak | Hesperiphona vespertina | Common winter visitor |
| Indigo Bunting | Passerina cyanea | Common summer visitor |
| Purple Finch | Carpodacus purpureus | Common summer visitor |
| Hoary Redpoll | Acanthis hornemanni | Common summer visitor |
| Common Redpoll | Acanthis flammea | Common summer visitor |
| Pine Grosbeak | Pinicola enucleator | Common winter visitor |
| Pine Siskin | Spinus pinus | Uncommon summer visitor |
| American Goldfinch | Spinus tristis | Common summer visitor |
| Red Crossbill | Loxia curvirostra | Uncommon winter visitor |
| Rufous-sided Towhee | Pipilo erythrophtlalmus | Common summer visitor |
| Slate-colored Junco | Junco hyemalis | Common winter visitor |
| Tree Sparrow | Spizella arborea | Uncommon resident |
| Chipping Sparrow | Spizella passerina | Common resident |
| White-throated Sparrow | Zonotrichia albicollis | Uncommon resident |
| Fox Sparrow | Passerella iliaca | Common summer visitor |
| Song Sparrow | Melospiza melodia | Common summer visitor |
| Water Pipit | Anthus spinoletta | ? |
| Yellowthroat | Geothlypis trichas | Common summer visitor |
| Mourning Warbler | Oporornis philadelphia | ? |

# APPENDIX E

# RECREATIONAL NEEDS OF REGION 13

# REGION 13

## DESCRIPTION OF REGION

Planning Region 13 consists of Barron, Dunn, Pepin, Pierce, Polk, and St. Croix Counties.

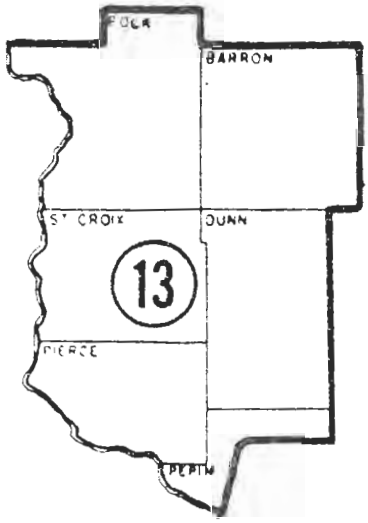
The 1974 population of the region was 171,237 or 3.7 percent of the state's population. The region is rural in character with 80 percent of the population living in rural areas. Major cities include: Menomonie (11,275), Rice Lake (7,278), River Falls (6,247), and Hudson (5,049).[1]

The 1974 population density was 15.6 people per square kilometer (40.5 people per square mile) (Table 355).

Per capita adjusted gross income of $3,236 is 79 percent of the state average (Table 355).

Region 13 is rich in recreation resources. There are six state parks and 16 county parks. A portion of the St. Croix River State Forest is found in Polk County. The northern parts of Polk and Barron Counties include some county forests. There are 24 public Hunting and Fishing Areas. McKenzie Creek Wildlife Area in Polk County is the largest with 2,103 hectares (5,197 acres). A segment of the St. Croix National Scenic Riverway is located in this region.

[1]Advance Report on the 1970 Census of Population in Wisconsin.



## SWIMMING

Supply. Pronounced variations in the nature of the water resource are evident in Region 13. Major rivers provide the bulk of the resource in the region's four southern counties — Dunn, Pepin, Pierce and St. Croix. Notable among these rivers and their associated impoundments are the Chippewa, Mississippi and St. Croix Rivers and Lakes Pepin and St. Croix. In contrast, Barron and Polk Counties contain numerous small inland lakes. Polk County also has substantial recreational potential provided by the St. Croix and Apple Rivers.

Water quality throughout the region varies greatly. Segments of rivers which flow near urban or industrialized areas may be unsuited to whole body contact sports such as swimming. Other segments retain near pristine characteristics. A great number of the lakes in Barron and Polk Counties have silt bottoms and are shallow and weed clogged. Others are clear with sand bottoms and contain little rooted or floating plant growth.

The region contains about 4% of the state's beach area and 2% of its swimming pool area (Table 356). Municipalities own somewhat less than half of the region's beach area. County governments, private enterprise and the state government provide the bulk of the remainder. The federal government provides only a small percentage. Municipalities own almost all of the region's swimming pool area. The small percentage they do not hold is owned by private enterprise.

Demand. The region's beaches and pools support 6% of the state's total swimming participation (Table 357). Weekend nonresident participation outnumbers resident participation about 3 to 1. Proximity to the Minneapolis-St. Paul area undoubtedly contributes to this pattern.

Need. Forecasts of swimming needs for Region 13 indicate demand will exceed supply by 1985 (Table 358). The forecasting process averages supply and demand over the entire region. As a result disparities that exist in distribution and quality of the resource are not taken into account.

At present, available beach area is concentrated in Polk and Barron Counties. Recreators from other regions and from out-of-state congregate in these areas. Half Moon Lake and Silver Lake are popular attractions. In the other counties of the region, beach area is at a premium. The east side of the Mississippi River is a catch-all for debris which in some areas restricts whole body contact sports such as swimming. The St. Croix River and Lake St. Croix offer possibilities for quality swimming; however, access or developed beach sites on these waters are at a minimum. Other flowages which could provide additional swimming opportunities often lack suitable sites for beach development.

Deficiencies in swimming opportunities may be resolved by: a) increasing beach sites on existing quality waters where at present such development is lacking or inadequate, b) constructing swimming pools in urban areas and other areas where beach sites are lacking and/or c) correcting water quality problems.

## BOATING

Supply. Region 13 is unusual in that it has both major rivers and lakes suitable for boating. The Mississippi, Chippewa and St. Croix Rivers; Lake Pepin; and over 370 smaller inland lakes provide excellent opportunities for recreational boating.

Relative to total water area, the number of access sites appears to be more than sufficient (Tables 359 and 360). However, in Barron and Polk Counties a number of larger lakes that are suitable for boating are without access. Only 28% of the region's lakes, with 55% of the total water area, have public access.

Demand. Water resources in Region 13 receive heavy use, especially from nonresidents. Nonresident participants account for 75% of the boating occasions generated in the region and 11% of the total nonresident boating demand in the state (Table 361). Proximity to the Minneapolis-St. Paul metropolitan area undoubtedly contributes to this pattern. Residents, on the other hand, generate boating occasions at a level proportional to the region's population.

Boat densities are generally higher than average on lakes in Barron, Polk, and St. Croix Counties.

Need. Though existing launching ramp supply is at the optimum level (Table 362), a number of factors suggest that a selective site development program would be justified for Region 13. There is an expressed demand for a substantial number of additional launching sites, average boat densities are high and not all available resources have been tapped. A number of lakes in Polk and Barron Counties are without access to the public and could be made available to relieve boating pressure on other bodies of water.

## CANOEING

Supply. Region 13 contains about 500 kilometers (310 miles) of good canoe streams. Included in this category is the portion of the Chippewa River which flows through Dunn and Pepin Counties to the Mississippi River. Numerous other rivers, streams and lakes provide the region with additional canoeing waters. Quality canoeing experiences can be enjoyed on portions of the Apple, Hay, Red Cedar, St. Croix, Trade and Willow Rivers.

The region's rivers and streams provide little challenge to white-water canoeists. However, family and leisure-time canoeists find them scenic and enjoyable.

The number of public developed and undeveloped canoe access sites on certain canoe streams is limited (Table 21) and falls far below the calculated design maximum. Public access to the region's surface waters in general is also poor.

Demand. Canoeing participation in Region 13 is well above average. The region supports 5,600 canoeing occasions per average seasonal weekend day, approximately 9% of the state's total participation in canoeing. Resident participation is below average for the state. Nonresident participation, on the other hand, is above average. Eighty-six percent of the canoeing occasions are generated by nonresidents; 14%, by residents (Table 363). Increasing access on the region's surface waters may increase canoeing demand.

Need. Increased public access and channel clearance are among the region's greatest needs. Access site deficiencies on canoe streams are significant. The design need, or the number of additional facilities needed to provide maximum access without sacrificing the canoeing experience, is presented in Table 364. Public access is inadequate on the majority of the region's canoeable waters.

Numerous streams could be made more desirable for canoeing if impediments to navigation (e.g. brush, fences) were removed to permit safe and easy passage.

## FISHING

Supply. The quantity of surface water in Region 13 is nearly double the state average on a per capita acreage basis (Table 365). However, localized deficiencies in supply occur due to the uneven distribution of water within the region.

Improved public access sites on smaller lakes in the region are also limited.

Demand. Regional resident fishing participation is equal to the state average, but about 50 percent of this activity takes place outside the region. Nonresident fishing participation in the region exceeds resident participation by a 4 to 1 ratio (Table 366).

Need. To minimize the disparity between the supply of and the demand for surface water resources, governmental agencies must be committed to securing lake and river frontage wherever it is available and protecting and improving the quality of the region's waters.

The need to accommodate increased fishing participation in Region 13 is apparent. Solutions can be found in improved public access to waters (e.g. energy efficient transportation systems from the Twin Cities metropolitan area), in improved water quality and in improved fishery management. Intensive fishery management will be needed.

## CAMPING

In the following analysis, camping facilities have been divided into two categories: developed and primitive. By definition, developed campgrounds are accessible by automobile and include improvements such as drinking water, picnic tables and toilets. Analysis of present and future recreation demand and need assumed 50 camping occasions per hectare (20 per acre) with four campers per campsite as the maximum which could comfortably be accommodated.

In contrast, primitive campsites are accessible by canoe, boat or foot; but not by motor vehicle. Improvements are generally limited to a cleared tent site and a fire ring. In more intensively used areas, pit toilets and drinking water may also be provided. In analysis of present and future recreation demand and need a general guideline of 2 campsites per hectare was assumed in order to maintain the desired quality of remoteness associated with primitive camping.

Unlike previous recreation plans, sites not directly accessible by automobile, but located near developed campgrounds were counted as developed sites, rather than primitive.

### Developed Camping

Supply. The six counties of Region 13 vary in both the type and relative availability of outdoor recreational resources they provide. The demand for outdoor recreation and camping facilities is increasing throughout the region. Among other factors, the increasing popularity of tubing on the Apple River, the development of Lake Pepin State Park, and the region's proximity to the metropolitan areas of Minneapolis and St. Paul have all accelerated this demand.

The region contains 2,934 developed campsites, about 7% of the state total (Table 367). About 74% of these are privately-owned and operated. Municipal, county, state and federal units of government, respectively, supply 10%, 9%, 6%, and 1% of the region's developed campsites.

Demand. Region 13 supports 6% of the state's total developed camping occasions. Recreators from other regions and out-of-state account for the vast majority of the camping demand. Out-of-state visitors alone generate 72% of the region's camping occasions (Table 368).

Campgrounds are operating at or above capacity in many areas. Sufficient support facilities are often lacking.

Need. Projections indicate that the existing campsite supply is adequate to meet demand through the year 1985; however, a deficit of 216 campsites will exist by 1995 (Table 269).

On the average, campgrounds are already filled to 84% of capacity. This implies that on the average seasonal weekend, most campgrounds are already filled to capacity.

The region's support facilities, particularly its surface water resources, are limited. As a result, there is some question as to the amount of additional development that can occur without substantially reducing the environmental quality and desirability of these natural resources. To circumvent this problem various campgrounds have provided swimming pools to increase their attractiveness.

It is expected that private campground development will continue. In addition, Lake Pepin State Park is expected to provide an additional 200 campsites. In any development, environmental degradation should be avoided. Public agencies can make great contributions by providing guidance and technical assistance focusing on quality campground maintenance, development and location.

### Primitive Camping

Supply. Region 13 contains 99 designated primitive campsites, 21% of the state total (Table 370). Sixty-nine of these sites are located on county-owned properties; 20, on municipal properties; and 10, on federal. No primitive campsites have been set aside in the state parks.

Demand. The demand for primitive camping is almost double the facility supply (Table 371). On an average weekend day, the region experiences 690 primitive camping occasions, 5% of the state total. Nonresident participation outnumbers resident, 3 to 1.

Need. Undesignated areas are absorbing much of the region's existing demand for primitive camping. Primitive camping has been observed along the Chippewa and Red Cedar Rivers and within the state parks. It is likely that existing public lands can accommodate the excess demand (Table 372).

The management policies of individuals and agencies controlling tracts of undeveloped land will have important effects on the availability of resources for primitive camping. Site development should be investigated and might be considered a priority area for public government involvement since the private sector has little economic incentive for providing primitive camping facilities.

## PICNICKING

Supply. Residents and nonresidents alike come to Region 13 to take advantage of the varied scenic and recreational opportunities offered. Those who choose to picnic in Region 13 will find parks like Kinnickinnic State Park (Pierce), Willow River State Park (St. Croix), Interstate State Park (Polk), and Glenwood Hills County Park (St. Croix) that offer quality picnicking opportunities. Six percent of the state's supply of picnic tables and 7% of the state's supply of picnic area are contained in the region. The major providers of picnic tables in Region 13 are municipal units of government followed by county government and the state (Table 373). The major providers of picnic area are municipal units of government followed by the state and county governments (Table 373).

Demand. Over 24,000 picnicking occasions per average seasonal weekend day or 6% of the state's picnicking participation is generated in Region 13 (Table 374). Residents account for 64% of the region's picnicking participation; nonresidents, for 36%. Nonresident participation in Region 13 is particularly high since Interstate Highway 94 provides excellent access to the region not only for residents from other parts of Wisconsin, but for nonresidents from neighboring states, especially Minnesota.

Need. Picnicking deficiencies in Region 13 are presented in Table 375. Picnicking sites and related support facilities will require additional development in conjunction with development of outdoor recreation complexes to satisfy demand. High level maintenance of picnic sites and support facilities is needed to assure quality picnicking experiences.

## SCENIC AND HISTORIC RESOURCES

Some of the more significant scenic areas in Region 13 are the Mississippi and St. Croix Rivers. Complementing these major waterways are vast areas of forested land and agrarian landscape in each of the counties and the terminal moraine-kettle lake region in Barron County.

Two of the ten scenic roadways identified in the State Scenic and Historic Resources section are found in Region 13. These are the Great River Road along the Mississippi River and the St. Croix River route (upstream from St. Croix Falls).

A number of the region's historic sites are listed in the National Register of Historic Places. These are presented by county in Table 376. Other sites considered to have architectural, historical and/or archeological significance are listed in the Wisconsin Historic Preservation Plan, Volume II, (1973).

The region's scenic and historic resources require protection by all units of government, private individuals and associations to maintain their intrinsic value and attraction for residents and nonresidents alike. The resource base, for historic sites in particular, is essentially nonrenewable; if lost or destroyed these resources cannot be replaced. It is essential, therefore, that they be protected.

Protection in the form of preserving a resource and protection from changes in land use which would destroy a scenic view or historic site are required. A scenic roadways system is needed in Region 13. Scenic easements and an access control program, such as provided by Wisconsin Statutes 84.25 and 83.027 should be emphasized. DOT's Rustic Roads program provides another potential alternative for counties of the region desiring to develop a scenic roadways system.

For a more extensive discussion of the programs and actions that seek to protect and preserve the scenic and historic resources of Wisconsin, see the Scenic and Historic Resources section of the state summary.

## HUNTING

Supply. About one percent of the lands open for public hunting in the state are located in Region 13. State fish and game areas and county forests comprise over 68 percent of these lands (Table 377 and 378). Private inholdings on these lands and adjacent developments are potential sources of conflict which could force the reevaluation of hunting on portions of these lands. Wildlife and habitat resources of the region supply adequate hunting opportunities.

Demand. Per capita hunting participation by Region 13 residents is above the state average (Table 379). Future hunting opportunities may be improved through forest game management programs and as a result may further stimulate participation.

Need. Hunting quality can be maintained and improved by continued management of wildlife habitat, preservation of existing wildlife habitat (the preservation of woodlands to protect habitat as an example) and control of hunter numbers in relation to the productivity of the resource.

## REGIONAL RECOMMENDATIONS AND ACTION PROGRAMS

Increased public participation in the 1977 SCORP planning process was provided by Wisconsin's nine regional planning agencies. Each agency was requested to list those recreation-oriented acquisition, development, or policy related recommendations of relevance to the counties they serve, without consideration for priority. County recreation plans, selected regional studies, and each commission's first hand knowledge of recreation deficiencies within its boundaries formed the basis for the recommendations provided. This section lists State approved policies, projects and recommendations from a summary of regional planning commission contributions.

Counties in SCORP Planning Region 13 are served by the West Central Wisconsin and the Mississippi River Regional Planning Commissions (WCWRPC and MRRPC). Dunn County has formally withdrawn from the WCWRPC (Figures 6 and 16).

The WCWRPC provided outdoor recreation acquisition and development recommendations via their Natural Resource and Land Use Committee. Recommendations that apply to Region 13 follow.

1. Further develop Dunn County recreation facilities; especially for picnicking and camping.
2. Improve management of the Apple River *tubing area* upstream from Somerset in order to maintain the water quality and recreational experience (St. Croix County).
3. Develop a day use park and swimming facility in southwestern Polk County.
4. Further develop Willow River State Park to accommodate the increasing demand (St. Croix County).
5. Improve lake management programs to protect water quality throughout the region.
6. Increase winter recreation opportunities in Barron County.

Consideration of a regional park on Lake Pepin (Pepin and Buffalo Counties) is of high priority.

The Lower St. Croix River has been designated a scenic and recreational river in the Federal Wild Rivers System. The Department of Natural Resources is responsible for administration of the lower 40 kilometers (25 miles) of Wisconsin shoreline. Scenic easements, called for in the master plan, will protect the view from the river. Special zoning legislation for the Lower St. Croix River zone will require an expanded Department effort if it is to be effective. Continued support of local citizens and local governments will also be vital in protecting this major resource.

A federally initiated proposal to establish an Upper Mississippi National Recreation Area has received considerable study. The project would have considerable impact on outdoor recreation in the region if approved as initially proposed. The proposal calls for land control, by fee purchase or easement, of nearly all of the Mississippi River shoreline and designates federal, state, and local governmental responsibilities for control. The proposal is generally valid; it would provide for nearly total protection of the shoreline of the Mississippi River and its major tributaries and a wealth of recreational opportunities. Unfortunately, it does not make clear proposals for meeting the very high costs of implementation. This is a crucial consideration, particularly at the county and local levels.

The U.S. Army Corps of Engineers is currently studying all water and related land resource problems and needs of the Chippewa River Basin. It is hoped that this study will result in economically feasible and environmentally and socially acceptable management plans for the basin. Outdoor recreation development and facilities needs should be considered and incorporated where possible in project planning and report recommendations. At this early stage of planning, the Corps of Engineers cannot determine the extent or type of recreation related facilities that may be considered or proposed. The needs analysis section of this SCORP provides proposed guidelines.

TABLE 355

Summary of Data on Land and Water Resources, Population and General Economy in Region 13

| Parameter | Data |
|---|---|
| Land and Water Resources | |
| Land | |
| No. hectares (acres) | 1,096,327 (2,709,122) |
| Percent of region | 98.0 |
| Water[1] | |
| No. hectares (acres) | 23,584 (58,278) |
| Percent of region | 2.0 |
| Total[2] | |
| No. hectares (acres) | 1,119,911 (2,767,400) |
| Percent of state | 7.7 |
| Population | |
| Density per square kilometer | 15.6 |
| (per square mile) | (40.5) |
| Total 1970[3] | |
| No. | 158,100 |
| Percent of state | 3.6 |
| Total 1974[4] | |
| No. | 171,237 |
| Percent of state | 3.7 |
| Total 1980[5] | |
| No. | 186,530 |
| Percent of state | 3.9 |
| Economy | |
| Per capita adjusted gross income[6] | $3,236 |
| Percent of state average | 79% |

*NOTE: See footnotes 1–6 in Summary of Data on Wisconsin's Land and Water Resources, Population and General Economy on page 30.*

TABLE 356

Swimming Facilities in Region 13, 1975

| Ownership | Facility Type | | | | | |
|---|---|---|---|---|---|---|
| | Beaches | | | Pools | | |
| | No. | Sq. Meters | Sq. Feet | No. | Sq. Meters | Sq. Feet |
| Public | | | | | | |
| Federal | 1 | 3,642 | 39,204 | – | – | – |
| State | 2 | 14,973 | 161,172 | – | – | – |
| County | 14 | 21,925 | 236,010 | – | – | – |
| Municipal | 27 | 51,222 | 551,365 | 8 | 3,958 | 42,608 |
| Subtotal | 44 | 91,762 | 987,751 | 8 | 3,958 | 42,608 |
| Private | 28 | 20,262 | 218,106 | 2 | 79 | 847 |
| Total | 72 | 112,024 | 1,205,857 | 10 | 4,037 | 43,455 |

## TABLE 357

Swimming Participation in Region 13 in 1975 and Projected Participation in 1980, 1985 and 1995.

| | No. of Recreation Occasions Per Average Weekend Day | | | |
|---|---|---|---|---|
| Participants | 1975 | 1980 | 1985 | 1995 |
| Residents | 10,600 | 11,500 | 12,600 | 14,700 |
| Nonresidents | 27,700 | 29,000 | 30,500 | 33,500 |
| Total | 38,300 | 40,500 | 43,100 | 48,200 |

## TABLE 358

Swimming Supply, Demand & Need in Region 13*

| | Number of Recreation Occasions | | | |
|---|---|---|---|---|
| | 1975 | 1980 | 1985 | 1995 |
| Supply | | | | |
| Beach | 37,341 | 37,341 | 37,341 | 37,341 |
| Pool | 4,037 | 4,037 | 4,037 | 4,037 |
| Total | 41,378 | 41,378 | 41,378 | 41,378 |
| Demand | 38,300 | 40,500 | 43,100 | 48,200 |
| Need | | | 1,722 | 6,822 |

*Expressed in terms of recreation occasions

## TABLE 359

Boating Resources in Region 13, 1974

| | Hectares | Acres |
|---|---|---|
| Named Inland Lakes | | |
| Number | 372 | |
| Number with Public Access | 104 | |
| Percent with Public Access | 28 | |
| Surface Water Area Suitable for Boating | | |
| Inland Lakes | 14,340 | 35,435 |
| Mississippi River* | 11,928 | 29,474 |
| Total | 26,268 | 64,909 |

*Includes Lake Pepin

## TABLE 360

Boat Access Sites in Region 13

| Ownership/Facility Type | Number |
|---|---|
| Public | |
| Developed | 169 |
| Undeveloped | 271 |
| Type not ascertained | 6 |
| Total | 446 |
| Private | |
| Developed | 2 |
| Total | 448 |

## TABLE 361

Motor Boating Participation in Region 13 in 1975 and Projected Participation in 1980, 1985 and 1995.

| | No. of Recreation Occasions Per Average Weekend Day | | | |
|---|---|---|---|---|
| Participants | 1975 | 1980 | 1985 | 1995 |
| Residents | 4,400 | 4,800 | 5,300 | 6,200 |
| Nonresidents | 13,500 | 14,200 | 14,900 | 16,400 |
| Total | 17,900 | 19,000 | 20,200 | 22,600 |

## TABLE 362

Public Boat Access Site Needs, Region 13, 1975

| | No. Developed Access Sites |
|---|---|
| Optimum Design* | 175 |
| Supply | 177 |
| Design Need** | – – |
| Expressed Need*** | 86 |

*That number of access sites which will provide maximum access opportunities without sacrificing the quality of the boating environment, derived from surface water and launching facility capacities.

**Optimum design less supply.

***That number of additional access sites with parking spaces required to satisfy total 1975 recreational boating participation (pleasure boating, fishing and water skiing) in the region.

## TABLE 363

**Canoeing Participation in Region 13 in 1975 and Projected Participation in 1980, 1985 and 1995.**

| | No. of Recreation Occasions Per Average Weekend Day | | | |
|---|---|---|---|---|
| Participants | 1975 | 1980 | 1985 | 1995 |
| Residents | 800 | 800 | 900 | 1,100 |
| Nonresidents | 4,800 | 5,100 | 5,400 | 5,900 |
| Total | 5,600 | 5,900 | 6,300 | 7,000 |

## TABLE 364

**Public Canoe Access Site Needs in Region 13, 1975**

| | No. of Developed and Undeveloped Access Sites |
|---|---|
| Optimum Design* | 26 |
| Existing Supply | 7 |
| Design Need** | 19 |

*That number of access sites which will provide maximum access opportunities without sacrificing the quality of the canoeing environment.

**Optimum design less supply

## TABLE 365

**Streams and Lakes Suitable for Fishing in Region 13, 1975**

| Water Type | Kilometers (Miles) | Hectares (Acres) |
|---|---|---|
| Trout Streams | 895 (556) | – |
| Class I | 121 ( 75) | |
| Class II | 484 (301) | – |
| Class III | 290 (180) | – |
| Trout Lakes | - | 553 (1,366) |
| Warmwater Streams | 1,768 (1,099) | – |
| Warmwater Lakes | - | 18,974 (46,886) |

## TABLE 366

**Fishing Participation in Region 13 in 1975 and Projected Participation in 1980, 1985 and 1995.**

| | No. of Recreation Occasions Per Average Weekend Day | | | |
|---|---|---|---|---|
| Participants | 1975 | 1980 | 1985 | 1995 |
| Residents | 5,500 | 6,000 | 6,600 | 7,700 |
| Nonresidents | 21,100 | 22,100 | 23,200 | 25,500 |
| Total | 26,600 | 28,100 | 29,800 | 33,200 |

## TABLE 367

**Developed Camping Facilities in Region 13, 1975**

| Ownership | Sites | Hectares | Acres |
|---|---|---|---|
| Public | | | |
| Federal | 25 | 40.5 | 100 |
| State | 168 | 14.6 | 36 |
| County | 269 | 55.8 | 138 |
| Municipal | 303 | 27.1 | 67 |
| Subtotal | 765 | 138.0 | 341 |
| Private | 2,169 | 361.8 | 894 |
| Total | 2,934 | 499.8 | 1,235 |

## TABLE 368

**Developed Camping Participation in Region 13 in 1975 and Projected Participation in 1980, 1985 and 1995.**

| | No. of Recreation Occasions Per Average Weekend Day | | | |
|---|---|---|---|---|
| Participants | 1975 | 1980 | 1985 | 1995 |
| Residents | 2,800 | 3,100 | 3,300 | 3,900 |
| Nonresidents | 7,100 | 7,500 | 7,900 | 8,700 |
| Total | 9,900 | 10,600 | 11,200 | 12,600 |

## TABLE 369

**Developed Campsite Supply, Demand & Needs by Year, Region 13**

| | 1975 | 1980 | 1985 | 1995 |
|---|---|---|---|---|
| Supply* | 2,934 | 2,934 | 2,934 | 2,934 |
| Demand | 2,475 | 2,650 | 2,800 | 3,150 |
| Needs | | | | 216 |

*Assumed constant at 1975 level

TABLE 370
Primitive Camping Facilities in Region 13, 1975

| Ownership | Sites | Hectares | Acres |
|---|---|---|---|
| Federal | 10 | 4.0 | 10 |
| State | – | – | – |
| County | 69 | 4.0 | 10 |
| Municipal | 20 | .8 | 2 |
| Total | 99 | 8.8 | 22 |

TABLE 371
Primitive Camping Participation in Region 13 in 1975 and Projected Participation in 1980, 1985 and 1995.

| | No. of Recreation Occasions Per Average Weekend Day | | | |
|---|---|---|---|---|
| Participants | 1975 | 1980 | 1985 | 1995 |
| Residents | 170 | 190 | 210 | 240 |
| Nonresidents | 520 | 550 | 580 | 640 |
| Total | 690 | 740 | 790 | 880 |

TABLE 372
Primitive Campsite Supply, Demand & Needs by Year, Region 13

| | 1975 | 1980 | 1985 | 1995 |
|---|---|---|---|---|
| Supply | 99 | 99 | 99 | 99 |
| Demand | 173 | 185 | 198 | 220 |
| Needs | 74 | 86 | 99 | 121 |

TABLE 373
Picnicking Facilities in Region 13, 1975

| Ownership | Picnic Grounds | | | Number of Picnic Tables |
|---|---|---|---|---|
| | Number | Area | | |
| | | Hectares | Acres | |
| Public | | | | |
| Federal | 1 | 24 | 60 | 65 |
| State | 26 | 72 | 178 | 591 |
| County | 33 | 57 | 140 | 763 |
| Municipal | 69 | 146 | 362 | 1,126 |
| Subtotal | 129 | 299 | 739 | 2,545 |
| Private | 22 | 30 | 75 | 176 |
| Total | 151 | 329 | 814 | 2,721 |

TABLE 374
Picnicking Participation in Region 13 in 1975 and Projected Participation in 1980, 1985 and 1995.

| | No. of Recreation Occasions Per Average Weekend Day | | | |
|---|---|---|---|---|
| Participants | 1975 | 1980 | 1985 | 1995 |
| Residents | 15,600 | 17,000 | 18,600 | 21,700 |
| Nonresidents | 8,800 | 9,200 | 9,700 | 10,700 |
| Total | 24,400 | 26,200 | 28,300 | 32,400 |

TABLE 375
Picnicking Supply, Demand, Needs in Region 13 1975, 1980, 1985, 1995

| Size & Facilities | 1975 | 1980 | 1985 | 1995 |
|---|---|---|---|---|
| No. of Hectares (acres) | | | | |
| Supply | 329 (814) | 329 (814) | 329 (814) | 329 (814) |
| Demand | 807 (1,995) | 873 (2,158) | 943 (2,330) | 1,080 (2,670) |
| Needs | 478 (1,181) | 544 (1,344) | 614 (1,516) | 751 (1,856) |
| No. of Tables | | | | |
| Supply | 2,721 | 2,721 | 2,721 | 2,721 |
| Demand | 4,067 | 4,367 | 4,717 | 5,400 |
| Needs | 1,346 | 1,646 | 1,996 | 2,679 |

TABLE 376
National Register of Historic Places in Region 13, January, 1976

| Community | County/Site | Other Designations |
|---|---|---|
| | **Dunn** | |
| Menomonie | Mabel Tainter Memorial Building | |
| Menomonie | Tainter, Louis S., House | |
| | **Pierce** | |
| Diamond Bluff vicinity | Diamond Bluff Site/Mero Mound Group | |
| | **St. Croix** | |
| Hudson | Moffat, John S., House | |

TABLE 377
Area Open to Hunting
in Region 13, 1975

| Ownership | Hectares | Acres |
|---|---|---|
| Public | | |
| Federal | 741 | 1,832 |
| State | 9,608 | 23,743 |
| County | 11,880 | 29,357 |
| Municipal | 20 | 50 |
| Total | 22,249 | 54,982 |
| Private | 9,133 | 22,568 |
| Total | 31,382 | 77,550 |

TABLE 378
Hunting Supply – Area By Ownership Type (Hectares) Region 13

| County | Federal | State Forest | State Public Hunting Grds | County Forest Law | Forest Crop Law | Private Hunting | Private Shooting Pres | Municipal | Total |
|---|---|---|---|---|---|---|---|---|---|
| Barron | – | – | 1,933 | 5,550 | 1,469 | 5 | – | – | 8,957 |
| Dunn | – | – | 2,501 | – | 3,485 | – | – | – | 5,986 |
| Pepin | – | – | – | – | 584 | – | – | – | 584 |
| Pierce | – | – | 183 | – | 1,252 | NA | | 20 | 1,455 |
| Polk | – | 1,035 | 3,521 | 6,330 | 1,421 | – | – | – | 12,307 |
| St. Croix | 741 | – | 435 | – | 796 | 121 | – | – | 2,093 |
| Total | 741 | 1,035 | 8,573 | 11,880 | 9,007 | 126 | – | 20 | 31,382 |

NA – Not available

TABLE 379
Hunting Participation in Region 13 in 1975 and
Projected Participation in 1980, 1985 and 1995.

| | No. of Annual Recreation Occasions | | | |
|---|---|---|---|---|
| Participants | 1975 | 1980 | 1985 | 1995 |
| Residents | 433,500 | 471,900 | 516,000 | 603,800 |