

Form 1100-1  
Rev. 11-82

NATURAL RESOURCES BOARD AGENDA ITEM

Item No. \_\_\_\_\_

**SUBJECT:** Master planning - Approval of the master plan for Pattison State Park, Douglas County, with an acreage goal of 1,600 acres.

**FOR** July **BOARD MEETING**  
(month)

**TO BE PRESENTED BY:** Jim Treichel

**SUMMARY:** The Concept Master Plan for Pattison State Park is presented for review and approval.

Pattison State Park is located in Douglas County about 13 miles south of the city of Superior. Picnicking, swimming, camping, hiking, cross country skiing, and snowmobiling are recreational activities offered. Current state ownership for the park is 1,369.5 acres.

Development proposed in the master plan includes construction of a new work unit office/visitor center, a group picnic site, replacement picnic area walks, a group camping area of up to three sites, a backpack facility of up to three sites, an outdoor council ring area, and a bridge downstream from Big Manitou Falls. Other proposals include modification of existing service buildings expansion of playground equipment and play areas in several picnic areas, tree and shrub plantings and developing a room in the shelter building concession area for interpretive programs and displays. In addition, the snowmobile and ski trails will be modified for hikers. Historical sites and natural history in these areas will be interpreted.

Total development cost in 1984 dollars is estimated at \$359,000. The proposed development is dependent upon available funds and statewide priorities.

The current park boundary approved by the Board in 1970 will remain unchanged. However, to accomplish complete ownership within the boundary, it is necessary to adjust the acreage goal from 1,480 acres to 1,600 acres. The boundary was drawn in 1970 but the number of acres was incorrect.

**RECOMMENDATION:** That the Board approve the master plan for Pattison State Park with an acreage goal of 1,600 acres.

**LIST OF ATTACHED REFERENCE MATERIAL:**

- No  Fiscal Estimate Required
- No  Environmental Assessment or Impact Statement Required
- No  Background Memo

- Yes  Attached
- Yes  Attached
- Yes  Attached

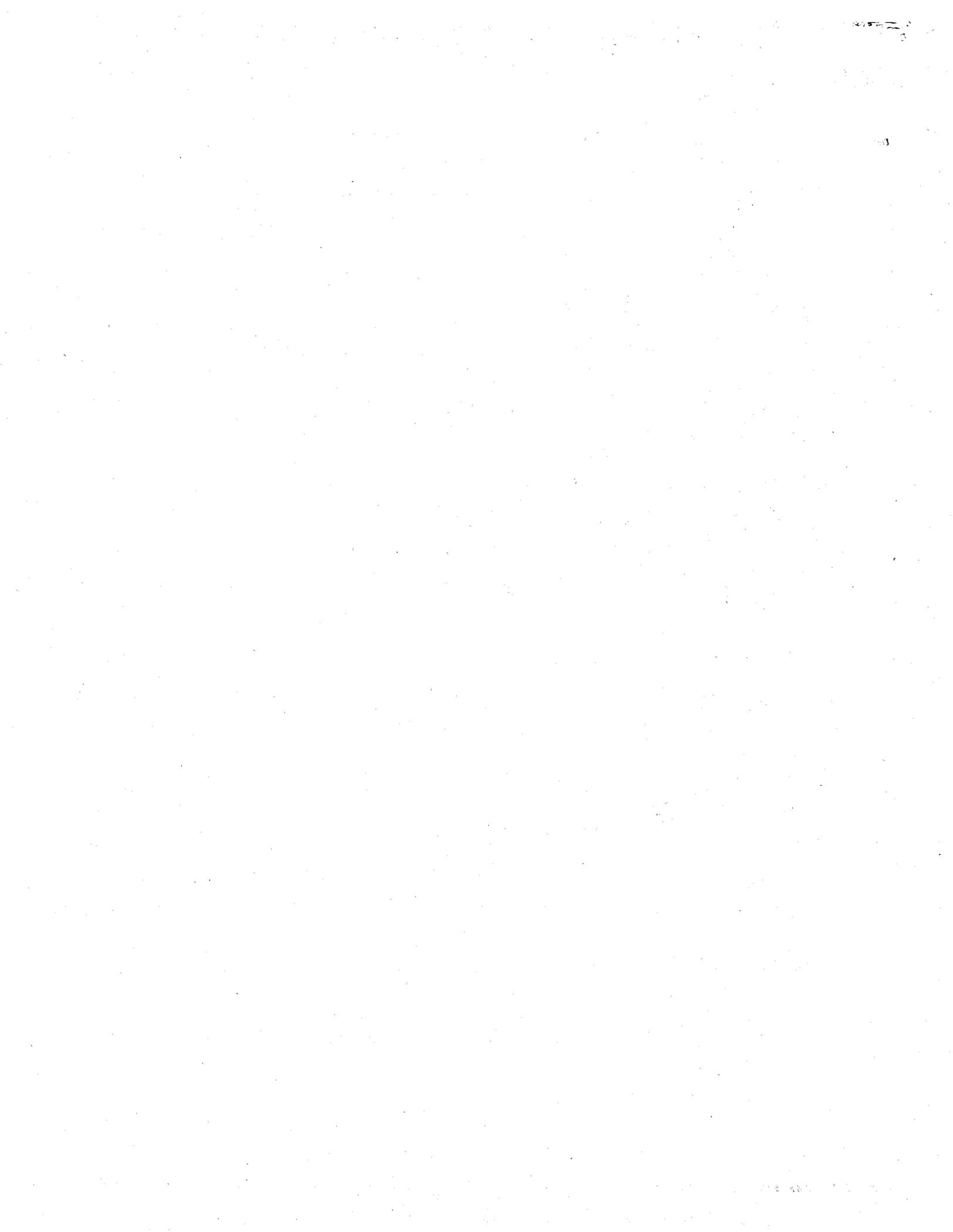
- cc: J. Scullion - ADM/5
- J. Huntoon - ADM/5
- R. Nicotera - ER/4
- R. Lindberg - FOR/4
- C. Germain - ER/4
- C. Evert - OL/4
- D. Weizenicker - P&R/4
- J. Treichel - P&R/4
- L. Nehls - P&R/4
- E. Faber - RE/4
- D. Jacobson - Spooner

**APPROVED:**

*[Signature]* 6/26/84  
Bureau Director D. Weizenicker Date

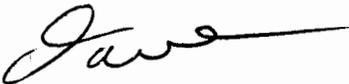
*[Signature]* 6/28/84  
Administrator J. Huntoon Date

*[Signature]* 7-5-84  
Secretary C. B. Besadny Date



te: June 25, 1984 File Ref: 2510

To: C. D. Besadny - ADM/5

From: David L. Weizenicker 

Subject: Pattison State Park Master Plan

As stated in the master plan for Pattison State Park, the goal is to conserve and enhance the aesthetic quality of the property while providing compatible recreation and interpretive opportunities and preserving and protecting the resource for present and future generations.

The plan calls for moderate improvements which include construction of a new work unit office/visitor center, a group picnic site, replacement picnic area walks, a group camping area of up to three sites, a backpack facility of up to three sites, an outdoor council ring area, and a bridge downstream from Big Manitou Falls. Other proposals include modification of existing service buildings, expansion of playground equipment and play areas in several picnic areas, tree and shrub plantings, and developing a room in the shelter building concession area for interpretive programs and displays. In addition, the snowmobile and ski trails will be modified for hikers. Historical sites and natural history in these areas will be interpreted.

Total development cost in 1984 dollars is estimated at \$359,000. The proposed development is dependent upon available funds and statewide priorities.

Current state ownership at the park is 1,369.5 acres. The master plan does not recommend a change in the park boundary. However, it is necessary to revise the acreage goal from 1,480 acres to 1,600 acres to accomplish 100% ownership. This adjustment in acres was not made with the approved boundary change in 1970 and is recommended at this time.

The master plan was presented at a public informational meeting on May 16, 1984, at the Town of Superior Town Hall. The 20 citizens attending the meeting indicated general approval of the plan. Few comments were received. One individual was concerned that 170,000 park visitors per year would deplete the water supply of adjoining land owners. There were also several questions regarding the Department's land appraisal process.

The Pattison Master Plan was sent to the Scientific Areas Preservation Council (SAPC) and Wild Resources Advisory Council (WRAC). SAPC recommended that the plan be amended to provide for scientific area designation of Big Manitou Falls and gorge area within the hiking trails on each side of the Black River. As a result of discussion with Northwest District staff, it was decided that state park ownership was adequate to protect this important geologic feature and that scientific area designation was not necessary.

WRAC had no comments regarding the proposed master plan.

An approved environmental assessment for the Pattison Master Plan is on file.

It is recommended that the Board approve the master plan for Pattison State Park.

DJK:sb

Attach.

cc: J. Scullion - ADM/5  
J. Huntoon - ADM/5  
R. Nicotera - ER/4  
R. Lindberg - FOR/4  
C. Germain - ER/4  
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PATTISON STATE PARK  
CONCEPTUAL MASTER PLAN  
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## SECTION I - ACTIONS

### GOAL, OBJECTIVES AND ADDITIONAL BENEFITS

#### Goal

To conserve and enhance the aesthetic quality of the property while providing compatible recreation and interpretive opportunities and preserving and protecting the resource for present and future generations.

#### Annual Objectives

1. Provide and maintain day-use recreational facilities including picnic areas and swimming beach for about 170,000 visitors.
2. Promote a quality recreation experience for approximately 20,000 campers by providing and maintaining backpack, group, and family camping facilities.
3. Establish and maintain trails to accommodate 50,000 hikers, cross-country skiers, and snowmobilers.
4. Provide and maintain a self-guided nature trail, interpretive displays, and interpretive programs for the education of 30,000 park visitors.
5. Provide opportunities for 1,500 angler days of fishing on Interfalls Lake and the Black River.
6. Manage and maintain the property's scenic and natural qualities by restoring and maintaining a diversity of vegetative cover types for the life of the property.
7. Accommodate individuals who are handicapped through the proper design, construction, management, and maintenance of the property and its facilities.

#### Additional Benefits

1. Provide for other recreational and educational uses including bird watching, wildlife observation, photography, and gathering wild fruits and mushrooms.
2. Benefit non-game species, including endangered or threatened species that may be residents of the property or migrate through the area.

## RECOMMENDED MANAGEMENT AND DEVELOPMENT PROGRAM

The chosen management and development alternative provides for development of recreational opportunities not now existing or in need of expansion. The development proposed is compatible with the park's physical limitations. In addition, service by the various Department of Natural Resources functions stationed at the park would be greatly improved.

The management and development proposal for Pattison State Park anticipates a stable to slightly fluctuating day use and a slight increase in campers. Development proposed over the next 10 years provides for improved visitor service and increased recreation opportunities.

### Development (Figure 3)

A new work unit office/visitor center is proposed to accommodate park, fire control, and forest management programs and personnel. Its construction on the main entrance road along with redesign of traffic flow will increase visitor safety, reduce law enforcement and revenue collection problems, and improve service to the public.

Relocation and consolidation of the various DNR offices at the park will permit modification of existing service buildings and construction of a fire control equipment storage structure.

Picnic areas in both the main and Little Falls locations will be enhanced through expansion of playground equipment and play areas. A group picnic site with associated developments will be established at the Little Falls area. Tree and shrub planting will be done to replace dying elms, provide screening, and for aesthetics. Picnic area walks are deteriorating and will soon need replacement.

The family campground will remain unchanged although campsite screening work underway will be continued. A group camp of up to three sites will be developed as will a backpack facility of up to three sites. Neither activity is available now. In addition, an area will be designated to accommodate bicyclists who arrive after campsites are filled. Interpretive opportunities will be increased by reducing the size of the concession area in the shelter building so that a meeting room for programs and a display area can be developed.

The snowmobile and ski trails will be modified for hikers. Interpretation of historical sites and natural history will be implemented in these areas. It is also proposed to develop an outdoor council ring area for school programs and other interpretive activities. A bridge will be constructed downstream from Big Manitou Falls and connecting trails built if land acquisition is completed in that area.

Portions of the park boundary will be cleared of brush and signed to aid enforcement of the "No Hunting" regulation. Vegetation will be controlled by hand removal and the application of approved herbicides in areas where hand removal is not practical. Boundaries where acquisition remains will be identified by signing and tree marking paint.

Completion of the above development items, estimated to cost \$359,000, will be dependent upon available funds and statewide priorities. Additional and/or up-to-date justification will also be required.

All areas proposed for development will be examined for the presence of endangered or threatened species of wild animals and plants. If list species are found, development will be suspended until the District endangered and non-game species coordinator is consulted, the site evaluated, and appropriate protective measures taken. In addition, the State Historical Society will be contacted whenever information or evidences of historical or archaeological concern is obtained. The Department may also wish to undertake a historical and archaeological survey of the park, which would best provide information for the future management of the park's historical and cultural resources. Finally biological inventories will be continued as funds permit. As with the historical and archaeological study, additional property objectives may be developed following accumulation of additional information.

#### Land Acquisition (Figure 2)

As of December 31, 1983, state ownership at Pattison State Park was 1,369.5 acres. It is recommended that the current boundary, as established in 1970, remain unchanged. An increase in the authorized acreage, however, from 1,480 acres to 1,600 acres is needed to accomplish 100% ownership. This adjustment was not made with the approved boundary change in 1970 and is recommended at this time.

Of the nine parcels yet to be acquired, only one contains a residence. In addition, an 80-acre parcel contains an active sand pit business. Purchasing will proceed as willing sellers become available. The parcels are required to protect scenic and interpretive values, provide protection of existing and potential future drinking water supplies, and control undesirable development intrusions.

Currently, a number of adjacent landowners gain access to their properties across park lands. Access agreements will be initiated to resolve these situations. In addition, the water line of the Manitou Valley Water Association passes through the park. An easement will be provided to the Association.

#### Facility Management

The park is staffed by two permanent, one seasonal, and 12 limited-term employees. In addition, one-half man-year of cooperative assistance is provided by fire control personnel stationed at the park.

As a unit of the Wisconsin state park system, Pattison has been developed and managed under Chapter 27, Laws of Wisconsin, specifically Section 27.01 which governs state parks. Pattison is also managed under the provisions of

Wisconsin Administrative Code 45, which contains the rules of the Wisconsin Department of Natural Resources pertaining to the conduct of visitors at state parks, state forests, and other property under the jurisdiction of the Department. Pattison is specifically identified in Chapter 27.01(7)(n) of the statutes wherein the name "Pattison State Park" is mandated and in NR 45.08(4) and NR 45.09(1)(b) which prohibit aircraft and motorboats on Interfalls Lake.

### Forest Management and Fire Control

Forest management activities involving timber cutting will be undertaken to ensure public safety, salvage dead or dying trees within intensive recreation areas, improve visual aesthetics, modify/maintain wildlife habitat, and to perpetuate desired timber types.

Aesthetic landscape management will be practiced in the south unit of the park and in all stands composed principally of pine and/or white spruce. The north unit of the park will be managed in part for aesthetics and to maintain a diversity of wildlife habitat.

Though forest production is not considered an objective within the park, vegetative management practices are applicable to the extent they can be used as a means to promote wildlife habitat maintenance/modification, aesthetic management, and forest perpetuation as desired.

Tree planting in intensive and extensive areas will be primarily of species native to the area. Coniferous shelterbelts will be developed as a means of noise abatement along heavy use travel corridors.

Forest fire prevention will be a joint effort by park and fire control personnel through individual contacts, public presentations, and proper maintenance operations. During fire seasons, the Pattison fire tower will be manned when needed. Located at the south boundary of the park, the tower provides excellent coverage of park property. Fire suppression activities will be the responsibility of fire control and park personnel and will operate under the direction of the park superintendent and area forest ranger.

Opportunities exist for underplanting aspen with native coniferous species. This will allow for the development of a long-lived stand with species capable of achieving larger diameters. It will also increase the coniferous component on the property for greater diversity.

The grasslands and brush areas will be maintained to maximize vegetation diversity within the property.

### Wildlife Management

Maintenance of early forest successional plant community types in the northern portion of the park will provide habitat types required by a number of animal species and will help maintain the diverse fauna found in the park. Many

forest game species such as deer, bear, ruffed grouse, woodcock, and snowshoe hare will benefit from the maintenance of the aspen and balsam fir forest types. In this area of early successional forest types three to five percent of the forest area will be managed for forest wildlife openings by maintaining the existing openings where they occur or by creating new openings by existing approved techniques.

Old growth timber management in the southern portion of the park will provide plant community types for many animal species which are not abundant on either private or public lands adjacent to the park. Although total numbers of individuals may be lower, animal species diversity generally increases in old growth plant communities due to the multi-storied vegetation diversity. Some animal species require this type of habitat to live in and other animal species are found in greater number in old growth forests. These species such as pileated woodpeckers and white-breasted nuthatches will benefit from this type of forest management.

Contour levels will be taken in the old farm fields in the southwest portion of Section 22 to determine the feasibility of establishing runoff ponds for waterbird, aquatic mammal, reptile, and amphibian habitat. If it is feasible to create runoff ponds in this location they should be built to provide additional aquatic habitat diversity in the park. Funding for this development should be sought from the Wisconsin Waterfowl Stamp funds, Non-game Tax Check-off funds, or other sources. If it is not feasible to develop runoff ponds in this area, the area will be maintained in a nonforested state to maintain the grass and brush habitats currently found there.

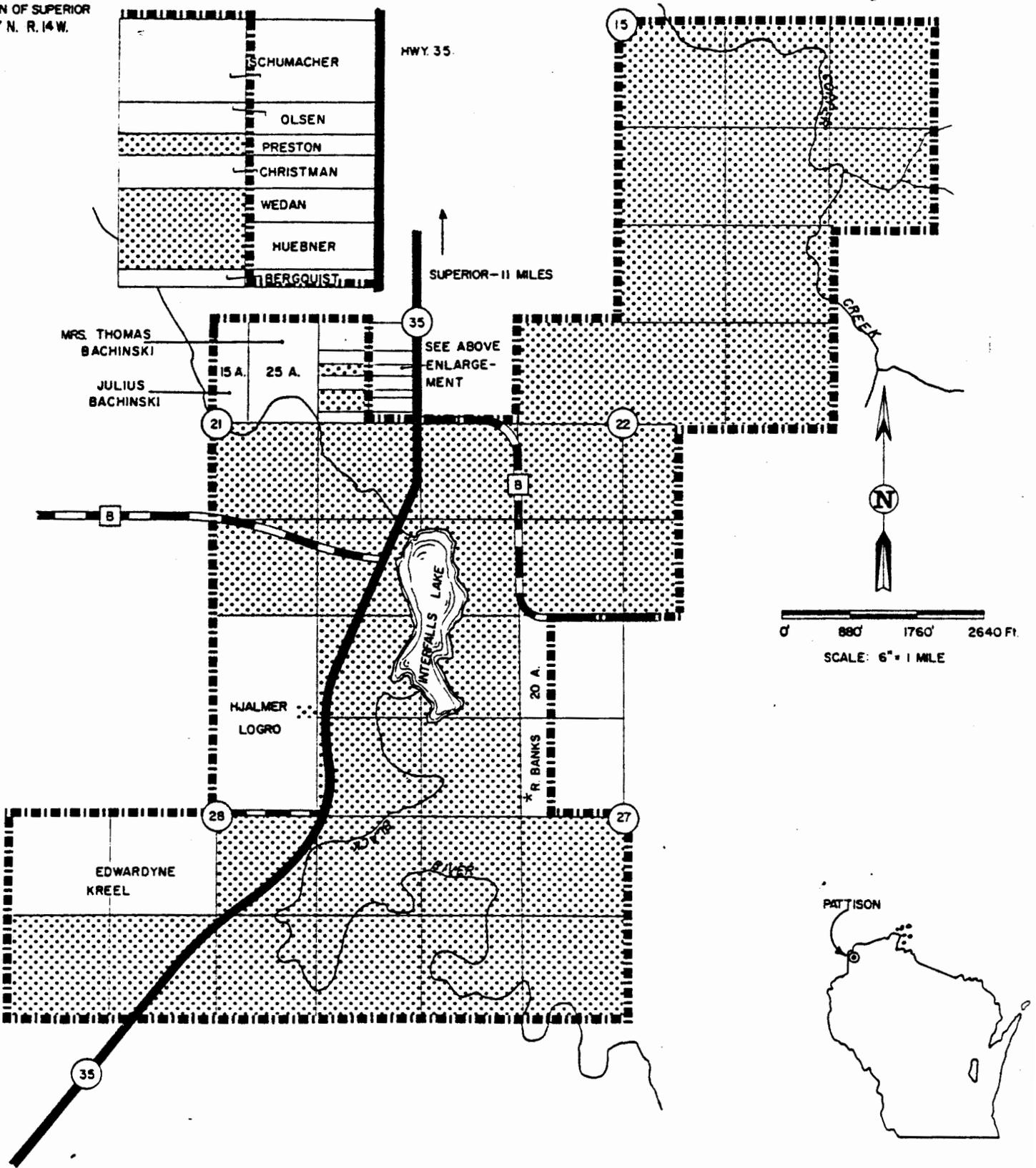
### Fish Management

The water level on Interfalls Lake will be drawn down as low as possible in the fall to reduce living space and cause a fish kill. This will be an annual program to help reduce the sucker and bullhead populations. It would not require additional labor or expense since the water level is lowered annually as part of the routine park operations. Maintaining high winter water levels to provide habitat for fish is not justified since preventing possible erosion damage to the park is considered more important than the value of the fishery.

Two plantings of rainbow trout will be made to spread out fishing opportunities for the anglers which are primarily park visitors. An early plant, prior to the general trout opener, would provide a spring fishery and a later plant around Memorial Day would provide a fishery during higher use periods. Most fish should be caught by mid-summer before oxygen and temperature levels become unfavorable for trout.



TOWN OF SUPERIOR  
T. 47 N. R. 14 W.



—LEGEND—  
 [Stippled Area] STATE OWNED  
 [Dashed Line] BOUNDARY  
 \*Residence

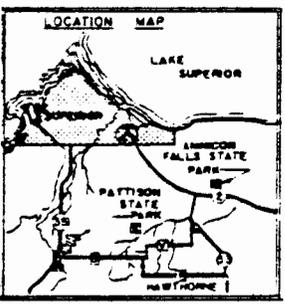
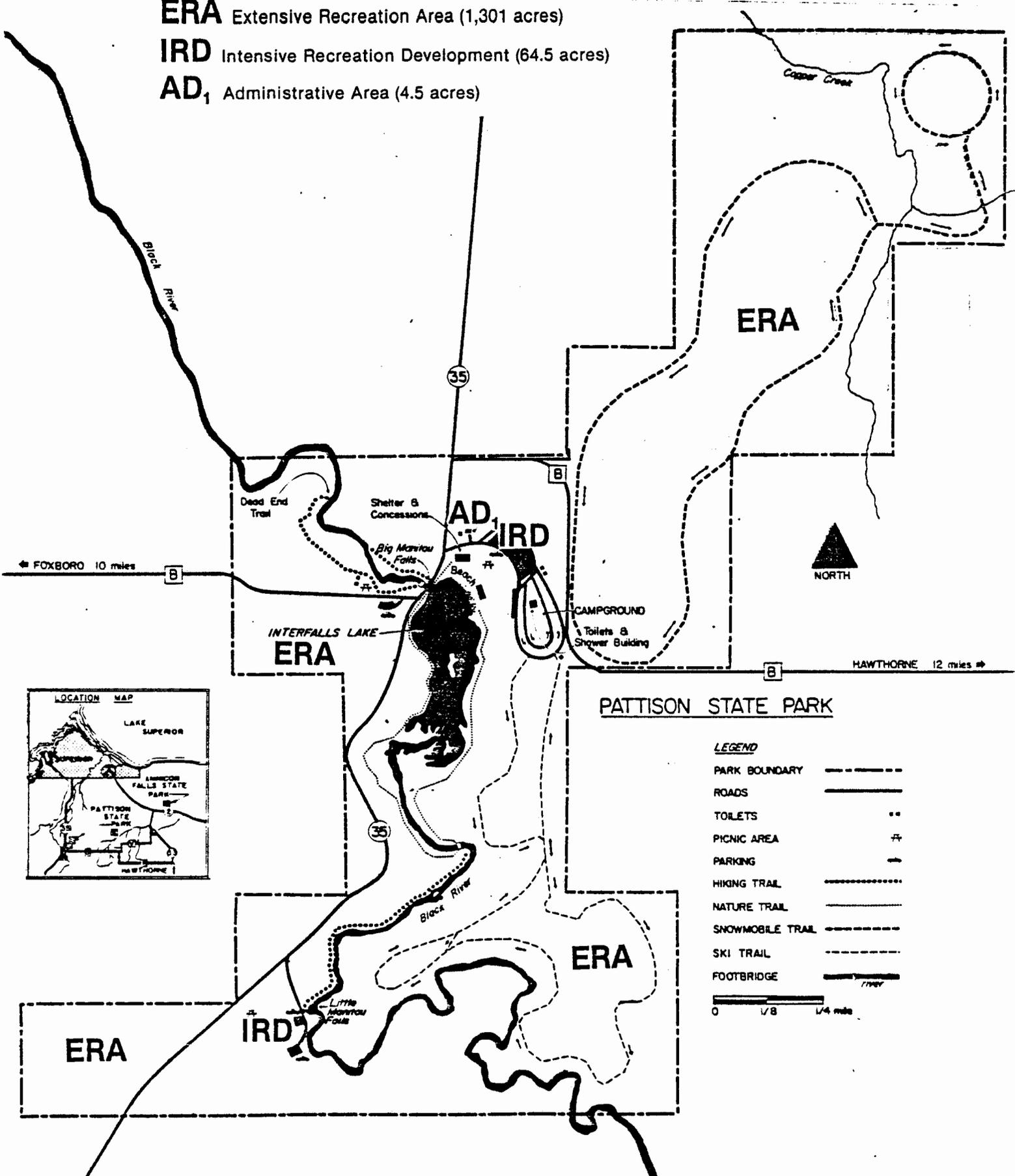
Ownership Map Figure 2



**ERA** Extensive Recreation Area (1,301 acres)

**IRD** Intensive Recreation Development (64.5 acres)

**AD<sub>1</sub>** Administrative Area (4.5 acres)



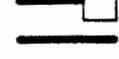
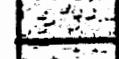
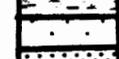
**PATTISON STATE PARK**

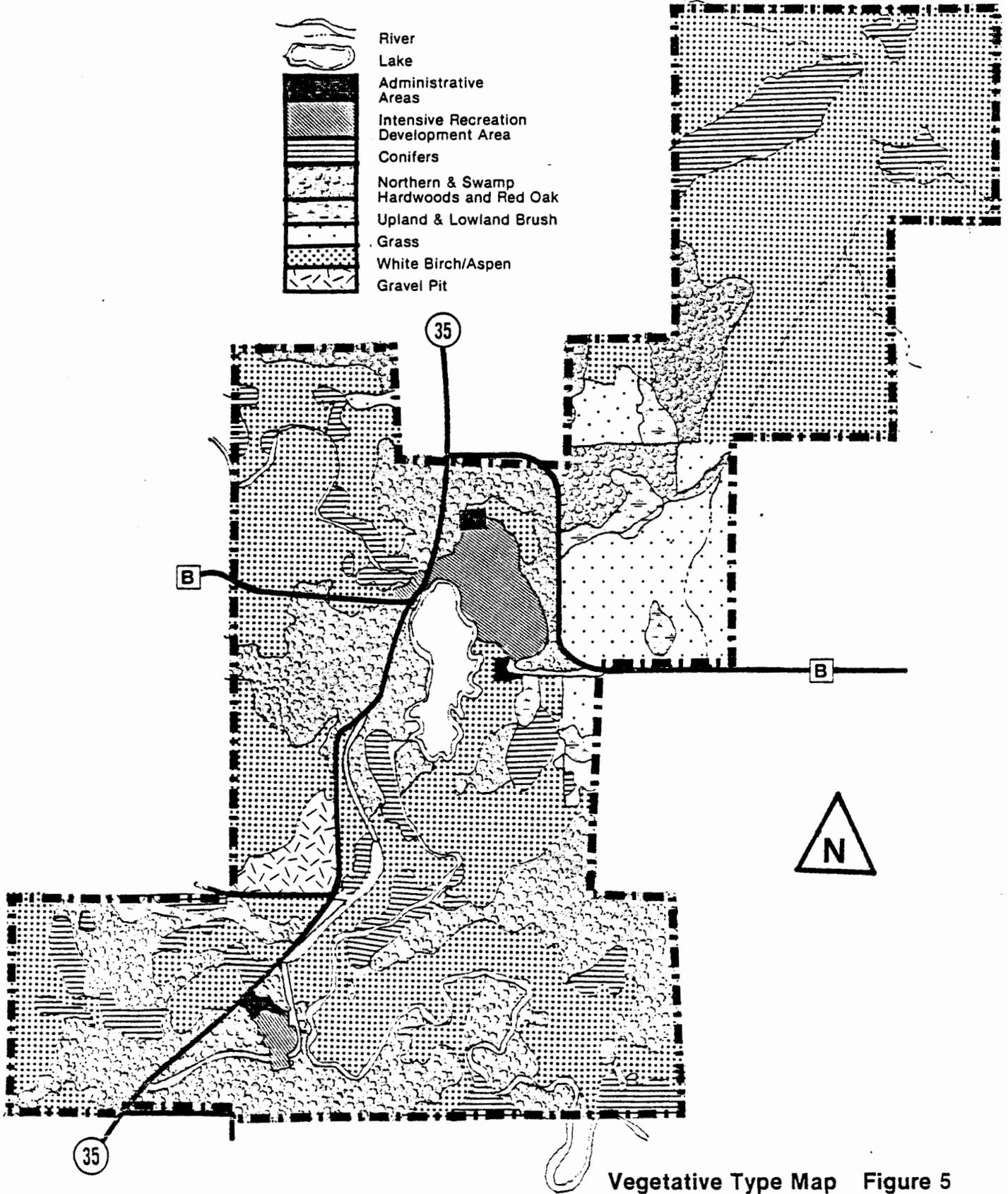
**LEGEND**

PARK BOUNDARY	-----
ROADS	=====
TOILETS	..
PICNIC AREA	+
PARKING	—
HIKING TRAIL	.....
NATURE TRAIL	-----
SNOWMOBILE TRAIL	-----
SKI TRAIL	-----
FOOTBRIDGE	=====

0 1/8 1/4 mile

Land Use Classification Map Figure 4

-  State Highway
-  County Highway
-  Town or Service Road
-  River
-  Lake
-  Administrative Areas
-  Intensive Recreation Development Area
-  Conifers
-  Northern & Swamp Hardwoods and Red Oak
-  Upland & Lowland Brush
-  Grass
-  White Birch/Aspen
-  Gravel Pit



Vegetative Type Map Figure 5

## SECTION II - SUPPORT DATA

### BACKGROUND INFORMATION

#### Location (Figure 1)

Pattison State Park is located within the Superior Township, Douglas County. It is about 13 miles south of Superior and 20 miles from Duluth, Minnesota. The park is about a three-hour drive from the Eau Claire/Chippewa Falls and Minneapolis/St. Paul metropolitan areas. Primary access is by State Highway 35 and County Trunk Highway B, which provides access from State Highway 53.

The park is located on the Wisconsin Coastal History Trail and the Wisconsin Bikeway Trail. In addition, the Douglas County Snowmobile Trail system and the local snowmobile club have connecting links to the park.

The presence of the park has prompted the development of a rural community surrounding the property. The community is informally called "Pattison Park" and a number of organizations and businesses use the name in their identification. Businesses within a mile of the park include a private campground, golf course/club house, and four taverns. Considerable use of the park is through walk-in, bike-in, and drop-off visitations.

#### History of Property Creation

The site of the waterfalls on the Black River had been a popular scenic attraction from the days of the early settlers. In 1918, Martin Pattison of Superior, who had in the early 1880's owned and logged part of what is now the southeast section of the park, acquired title to the lands encompassing both the Big and Little Manitou Falls. He then donated the 660-acre tract to the State of Wisconsin, and in 1920 it was formally designated a state park, the sixth oldest in the state system.

#### Ownership (Figure 2)

Following establishment of the original 660-acre park, the boundary and ownership goals have been revised several times. An 80-acre parcel was added in 1932 and in 1936, 400 acres comprising the present ownership east of STH 35 and north of CTH B, the Copper Creek Addition, was purchased. By 1944, the size of the park had grown to 1,160 acres. No further acquisition was done until 1963. Periodic additions since have brought ownership to 1,369.5 acres or 85.6% of the proposed goal. Acquisition costs to date total \$43,432.50, or \$31.71 per acre.

#### Past and Current Management Practices

Long before the park was established, the site of the waterfalls was a popular attraction. When established, the park was developed primarily for picnickers and persons wishing to view the falls. Over the years, especially following

the development done by Camp Pattison of the Civilian Conservation Corps, recreation opportunities were expanded to include hiking, camping, swimming, fishing, and general nature education.

Presently, Pattison has 60.5 acres developed for intensive recreation. These developments include: 20 acres of picnic area with 190 tables and 24 grills; a 300-foot beach; 545 parking stalls; a two-mile labeled nature trail; 1.5 miles of hiking trail; 5.5 miles of snowmobile trail; 4.5 miles of cross country ski trails; five developed overlooks and vistas; one campground with 59 sites and shower/flush toilet facilities; and 3.4 miles of roads. Facilities also include a shelter/concession building which also houses interpretive displays and has flush toilets; a bath house with flush toilets; a filter bed type sewage treatment plant; an office/workshop; a storage garage; two well houses and a pump house.

Park use varies greatly and has ranged from 125,000 visitors to 180,000 visitors in the last 10-year period and has averaged 146,000 visitors. Chief among the factors affecting visitations are Lake Superior weather influences. As would be expected, cool wet summers produce low attendance while warm dry summers result in heavy use. Camper numbers also vary but are influenced less by the local climate. Over the past 10 years the number of camper days ranged from 15,000 to over 18,000, averaging 16,600.

The Pattison ranger station and two fire control service buildings are also located within the park. Presently, in addition to park and fire control personnel, a forester and an environmental engineer maintain offices and the Superior conservation warden stores his equipment at the site.

A single-family home is located adjacent to the park office, where the park superintendent is required to reside.

## RESOURCE CAPABILITIES AND INVENTORY

### Geology

The geology of Pattison Park is unique and interesting due to its diversity. Trap rock, or basalt, underlies parts of the park and is the product of deep volcanic action that occurred over a billion years ago. At that time fissures opened in the earth's crust allowing great masses of lava to flow out horizontally. Later, oceans advanced to cover the lava and deposit thick layers of red sandstone.

Some hundreds of millions of years ago, faulting forced parallel rock walls, or escarpments, to be thrust upwards forming the deep valley that would later become the basin for western Lake Superior. The shifting of rock masses resulted in basalt bedrock south of the fault line and sandstone to the north. Eventually, weathering and glaciation removed the sandstone that remained above the basalt. The very hard lava rock, however, protected the

sandstone to the north. Pattison Park lies on this fault line and both types of rock are exposed in the river gorges as is conglomerate which identifies an ancient ocean/rock cliff interface.

The fault line running through the park also serves to divide the county into two of the five geographical provinces of Wisconsin. The northern third of the park lies in the Superior lowland province. It is characterized by heavy red clay soils that were deposited by the waters and ice flows in Glacial Lake Duluth some 12,000 years ago. The southern third of the park is in the northern highland zone and its high ridges and deep valleys show evidence of the recessional moraine left by the stagnated glacier as it retreated north.

Two streams, the Black River and Copper Creek, flow north through the park. In the few thousand years since the last glacier retreated, the streams gradually cut valleys upstream through the soft clay and sandstone forming steep sided gorges on both streams. Upon meeting the resistant lava rock, the streams could not erode as rapidly as previously, and the water power was expended downwards, causing beautiful waterfalls. The fourth highest waterfall east of the Rocky Mountains, 165-foot Big Manitou Falls, and 31-foot Little Manitou Falls are located on the Black River. The 25-foot high Copper Creek waterfalls is located in the northeast section of the park.

### Soils and Topography

Pattison Park is roughly separated into three soil associations. Most of the northern third is composed of the Hibbing-Allendale Association, which is primarily red clay glacial material. Slopes range from zero to vertical cliffs. Water is absorbed very slowly and frequently stands on the surface. This region has limited development potential unless special provisions are made for the wet clay soils and, in places, steep slopes.

The central region of the park and most of the northwest corner are of the Sayner-Udorthents Association. These are well to excessively drained soils and at Pattison, these are excessively drained soils which were formed from the sandy beach deposits of glacial Lake Duluth. The valley of the Black River separates this area east and west into a broad zone of 30 to 100% slopes.

The Sarona-Gogebic Association makes up the southern third of the park. These soils are developed from sandy loam glacial till parent material. An exception to the well-drained nature of the soils comprising this association is an area of muck near the southwest corner of the park.

The topography of the park ranges from level in the area north of the glacial Lake Duluth beach zone to perpendicular in the gorges of the Black River and Copper Creek, and on rock outcrops along the Superior escarpment. The amounts of land by generalized slope-class are: 0-6% slope = 33%; 7-15% slope = 24%; 16-30% slope = 18%; 31-100% slope = 25%.

### Surface Water Resources

Three primary surface water features are found within Pattison State Park. The Black River meanders a distance of about four miles through the park as it flows from its headwaters, (Black Lake), on the Wisconsin-Minnesota border to its confluence with the Nemadji River, about seven miles south of the City of Superior. The upper 22 miles of the river's roughly 28-mile length flows over a relatively flat plain of lake clays and glacial deposits with the resulting drainage being darkly stained swamp water. It is from this darkly colored water that the river derives its name.

Upstream from the Little Manitou Falls to the park boundary, a distance of less than two miles, the river gradient is gradual and the water generally quiet. During high water, the river is occasionally canoed from the first crossing south of the park, the Milchesky Road, to the Little Manitou Falls. The route, however, is obstructed with fallen trees, rocks, and shallow areas. From the crest of Little Manitou Falls to where it leaves the park, except for Interfalls Lake, the river drops 350 feet. Except for Interfalls Lake, its course is a series of very scenic cataracts and rapids not suitable for canoeing. The normal flow is estimated at ten cfs.

Interfalls Lake is a small (26.7 acres) impoundment on the Black River, Douglas County (T47N, R14W, Sec. 21, 22, 27, 28). The water is hard (MPA 63 ppm), shallow (maximum depth 13 feet), slightly basic (pH 7.1) and stained (Secchi disk three feet). Littoral substrate consist primarily of sand with small areas of rubble, muck, and boulders. The lake is located entirely within the boundaries of Pattison State Park.

In the northeastern section of the park, Copper Creek meanders for about two miles as it flows northward toward the Nemadji River. It is a small stream and for about half its length, after tumbling over a 25-foot-high waterfall, passes through a scenic, steep-walled gorge. There are numerous steps, ledges, and pools along its course that add to its charm.

Both the Black River and Copper Creek experience extreme flow variation from very low during dry summer periods to cascading torrents during spring thaws and after heavy rains. These fluctuations present serious management problems.

### Weather

The climate of Douglas County is characterized by long, cold winters and rather short, moderately warm summers. The average annual temperature is 41°F with recorded extremes of 108°F and -47°F. Changes in weather are frequent and marked in the area, both summer and winter.

Pattison Park lies on the north-facing edge of the Superior escarpment which separates the Superior lowland from the northern highland geographical provinces. The climate of the lowland is tempered by the influence of Lake Superior especially in spring and summer when temperatures are cooler and to a lesser degree in fall and winter when conditions are milder than on the upland south of the escarpment.

The park lies in the transition zone and its weather is influenced by the conditions in the direction of the prevailing winds - east and off the lake in May, June, and August and from the north and north-west in July and from September through April. It is not unusual for midafternoon temperatures to be twenty or more degrees higher at the park than twelve miles north in Superior when a lake wind prevails.

At times, however, the cool lake effect extends south of the park, often bringing with it heavy fog which may persist for several days. Fog is reported an average of 50 days in the City of Superior. The frost-free season averages 153 days.

Likewise, winter weather is conditioned by the escarpment and associated adiabatic precipitation. The county-wide average of 45" of snowfall is exceeded in a zone from Pattison Park southward. At the U.S. weather bureau station at Duluth on the north escarpment, which is similar to the conditions at Pattison, snowfall averages 76"/year. While Douglas County averages 115-120 days of snow cover, snow comes earlier and stays longer on the transition zone than in the southern areas of the county and in the Lake Superior lowland. Snowfall has been recorded in every month but June. Snow cover often lasts from early November to mid-April. There is a 60% probability of snow cover at the end of November and about 20% as late as April 15th. Ice at times persists in rock fissures in the gorge below Big Manitou Falls into early June.

Precipitation is well distributed throughout the year and is 32.1 inches, exceeding the state average by over an inch. About 60% of the rainfall comes in spring and summer with an average of 8" in March, April, and May and 11" in June, July, and August. June is the rainiest month and February the driest.

High humidity is experienced when temperatures are affected by winds off the lake. Extremes in temperature are usually accompanied by dry air while in winter the cold north and northwest winds are likewise relatively dry.

Park attendance is significantly influenced by local weather conditions. Visitors from the Duluth/Superior metropolitan area make heavy use of the park to escape the cooling Lake Superior temperatures, particularly for swimming opportunities. Persistent northeast winds, however, accompanied by low pressure systems, extends cold, foggy weather south of the Pattison area sometimes for several days in succession causing low use. On the other hand, winter recreation activities begin earlier and last longer along the escarpment transition zone than elsewhere in the county.

#### Vegetative Cover (Figure 5)

Between 1832-1866, the United States government General Land Office undertook a survey of Wisconsin. This survey indicated that most of Pattison State Park was part of the Boreal Forest, consisting of: white spruce, balsam fir,

tamarack, white cedar, white birch, and aspen. The southwest and south reaches of the park fringed on a Mixed-Deciduous Forest, which included: sugar maple, yellow birch, white pine, and red pine.

A recently completed forest reconnaissance map indicates the various cover types as follows: Aspen - 445 acres; Northern Hardwoods/Red Oak - 319 acres; White Birch - 187 acres; Swamp Hardwoods - 56 acres; Swamp Conifers - 48 acres; Red and White Pine - 44 acres; Fir/Spruce - 26 acres; Grass - 97 acres; Brush - 26 acres; Water - 44 acres; Right-of-Ways - 14.5 acres; Developed Areas (includes: picnic areas, parking areas, administrative areas, campgrounds, scenic overlooks, hiking trails, snowmobile trails, ski trails) - 63 acres. All data listed above accounts for only that acreage (1,369.5) presently in state ownership.

Forest cover types proposed for purchase within the designated property boundary includes: White Birch - 57 acres; Aspen - 39 acres; Swamp Hardwoods - 36 acres; Swamp Conifers - 25 acres; Northern Hardwoods/Red Oak - 17 acres; Red and White Pine - 9 acres; Grass - 10 acres; Brush - 9 acres; Water - 1 acre; Right-of-Ways - 2 acres; Gravel Pit - 33 acres for approximately 238 acres total.

Pattison Park contains a wide variety of plant communities, successional plant community stages, aquatic, and riparian communities. Two "watch plant species," Woodsia oregana and Woodsia abbae, have been reported. Appendix I is a partial plant inventory.

#### Wildlife Resource

The variety of plant communities, community ages, and geomorphic features provide habitat for a large number and variety of animal species. Appendix II lists 242 bird species which are known to occur in the park or which possibly occur in the park since they are known to occur in the general vicinity of the park. In Wisconsin there are about 300 bird species which regularly occur in the state and about 375 bird species which are known to occur in the state. Hence Pattison Park provides suitable habitats for a large number of bird species which occur in northwestern Wisconsin.

Appendix III lists 53 mammal species which occur in Pattison Park or are known to occur in the general vicinity of the park.

Less information is known about many of the amphibians and reptiles found in the park because of their generally secretive habits and the fact that no systematic survey of them has been conducted. Appendix IV lists 9 species of reptiles and 17 species of amphibians which are known to occur in the park or in the general vicinity.

The wood turtle, a Wisconsin threatened species, is a permanent resident of the park. Bald eagles and ospreys, both Wisconsin endangered species, regularly feed in the waters of the park.

Pickereel frogs have not been recorded in the park, but there is a possibility that they may occur in the park since apparently suitable habitat is present.

The following threatened and endangered species may occur occasionally as transients and/or as migrants in the park since they are known to occur in this capacity in the vicinity of the park: timber wolf, Canada lynx, piping plover, common tern, loggerhead shrike, red-necked grebe, double-crested cormorant, red-shouldered hawk, and Blanding's turtle.

### Fishery Resource

Of the three primary surface water features, only the Black River and Interfalls Lake are considered for management. Copper Creek within the park contains naturally reproducing brook trout but is identified as of only Class 3 quality.

A fisheries survey was conducted on Interfalls Lake in 1967. Suckers, minnows, and bullheads were the primary species found along with one brown trout and one rainbow trout. It was recommended to chemically treat the lake and establish a more desirable fish population. The lake was reclaimed with rotenone in 1968 and restocked with 140 adult crappies and 1,420 largemouth bass fingerlings in 1969. In 1972, an additional 350 largemouth bass fingerlings were stocked. The only documentation of the presence of these species was of a 10" crappie taken in the lake in 1979 and two 6" bass taken from a pool below Big Manitou Falls in 1981. An annual plant of 500 rainbow trout below Little Manitou Falls and in the lake has provided a short term trout fishery.

In 1983, another survey was conducted using fyke nets and two seine hauls. Oxygen levels and temperatures were monitored during the summer and winter. A total of 697 white suckers, 217 black bullheads, 3 rainbow trout, 2 rock bass, 862 common shiners, 61 trout-perch, 22 brassy minnows, 9 creek chubs, and 8 blacknose shiners were sampled.

Both the white sucker and black bullhead populations are dominated by fish in the 3"-10" range. Only two white suckers larger than 10 inches were sampled. Common shiners make up the bulk of the minnow community. The three rainbow trout sampled were thin and did not appear to be in good condition.

Water chemistry analysis revealed oxygen levels high during the winter and normal for late summer. The late summer temperature regime is considered marginal for trout for the first five feet. Water temperatures are cooler near the bottom, but low oxygen levels will prevent trout from utilizing this area.

The Black River upstream from Little Manitou Falls is Class 3 trout water containing native brook and brown trout. These same species are present between the falls and the lake. No management above the falls is proposed, however, below the falls, rainbow trout will be stocked.

The Black River below Big Manitou Falls also contains native brook and brown trout. The bulk of the fishery, however, is of species migrating from Lake Superior. Since 1977, chinook salmon have been stocked in the river downstream from the park. The annual fall spawning runs provide recreation opportunities upstream to the Big Manitou Falls impass.

Steelhead plantings were made from 1978 to 1981 in an attempt to establish spring spawning runs. No stocking was done in 1982. In 1983, planting of fish from wild parents was begun. Fishing for this species is increasing both in the park and downstream.

Spring spawning runs of both longnose and white suckers also provide recreation for anglers upstream to the Big Falls. Winter burbot runs also occur in the Black River though it is unknown if they are able to pass shallow rapids to reach park waters. The established spearing season does not extend upstream as far as the park.

The Black River is also a breeding stream for the sea lamprey. Between 1962 and 1982 the U.S. Fish and Wildlife Service treated the river eight times with a lampricide. One of the application stations is in the park between the lake and Big Manitou Falls. These treatments are usually scheduled at four-year intervals.

### Historical and Archaeological Resources

The State Historical Society, State Archaeologist and the Douglas County Historical Society have been contacted and none have any historical or archaeological sites documented within the park boundary.

The park has, however, produced evidence of Indian habitation. Numerous arrowheads have been found in the Copper Falls Creek area and an early government surveyor reported finding a stone hammer near Little Manitou Falls and near Copper Creek evidences of prehistoric copper mining activity. Indian names for the Black River, both falls and various sections of river, as well as legends, indicate the park site was well known to the early Americans.

Physical evidence also remains of copper mining attempts in the park beginning with the North American Fur Company attempts in about 1854 and continuing into the early 1900's. This early mining activity can be seen at both the Little and Big Manitou Falls, in the Copper Creek area, and scattered along the exposed bedrock throughout the park.

Artifacts can still be found at the building sites of Martin Pattison's 1880 logging camp at the southern end of the park. The river was used for logging drives and a logging dam and sawmill were located near the site of the present dam.

Although the exact locations are not known, old records indicate the St. Croix Trail passed through the park and that construction was begun near the Manitou Falls in the 1850's of what was to be the first railroad into the Superior/Duluth area.

Of more recent historical significance is the site of Camp Pattison of the Civilian Conservation Corps which was located at what is now the Little Manitou Falls picnic area. The camp operated from 1935 to 1942.

#### Land Use Inventory (Figure 4)

Lands within the park are classified as intensive recreation development (IRD), extensive recreation area (ERA), and administrative areas (AD<sub>1</sub>). With the developments identified in this plan and considering present ownership only, the IRD land encompasses 64.5 acres and the AD, 4.5 acres. The remaining 1,301 acres are classed ERA.

### MANAGEMENT PROBLEMS

#### Highway Dissection

The chief management problems are those created by state and county roads that divide the park into four sections. The park is split east and west by CTH B and north and south by STH 35. Of the proposed 1,600 acres the northwest section contains 110 acres, the northeast 560 acres, the southeast 630 acres, and the southwest 300 acres. This dissection of the park has resulted in multiple access points, revenue collection, law enforcement, visitor safety, and esthetic problems as well as limiting development potential. The Wisconsin Department of Transportation has indicated that relocation of STH 35 is not considered for the foreseeable future. However, it is recommended that the respective Departments re-examine their mutual interests in the area and attempt to identify alternative low-cost solutions to problem areas.

#### Physiographic Features

As described in the resource capabilities and inventories part of the plan, the potential for development is limited by steep slopes and cliffs, a high water table, and highly erodable clay and sand soils in various sections of the park. Additional recreational developments require special design and construction techniques. These factors result in high per unit cost and demand strong cost/benefit justification.

### Boundary Identification

The irregular shape of the park boundary results in over 10 miles of boundary fronting on private ownership. In addition 7.21 miles of state, county, and town roads either form additional park boundary or pass through interior sections of the park. This extensive boundary and extensive road system requires adequate signing and where private ownership abuts, clearing and brushing for proper identification. Resources have not been available to properly demark state ownership to adequately prevent unauthorized activities.

### Inadequate Office/Public Contact Facilities

The DNR maintains not only park operations at Pattison Park, but a fire control organization and an office for a forester. The fire control and forestry offices are presently located some distance from the main administrative/public contact area and the public wishing to do business must pass through the campground to get there. Present park office facilities are too small, located off the main park entrance, and housed in the same building as maintenance operations. The poor location, multiple use, and size conflicts result in poor service to the public, law enforcement and revenue collection problems and poor working and public contact conditions. A new facility located on the main park entrance road with offices for all DNR functions stationed at Pattison is needed to adequately serve the public.

## RECREATIONAL NEEDS AND JUSTIFICATIONS

The 1981 State Comprehensive Outdoor Recreation Plan (SCORP) for Region 1, northwestern Wisconsin, Douglas County recreation and resource plans, citizen input and Pattison Park and local recreation factors were used to determine recreational needs and justifications.

A 1982 DNR analysis of campground development needs determined Pattison to have poor potential for additional camping demand. Average occupancy rates for 1980-1983 are June 42%, July 79%, August 69%. According to the Douglas County Soil and Water Conservation District plan, there are ten public and six private campgrounds which provide 354 and 185 sites respectively. Two private campgrounds are located within ten miles of Pattison Park. In addition, a number of town parks permit informal camping. SCORP indicates the supply of developed sites exceeds the demand in Region 1.

On the other hand, SCORP identifies the need for additional primitive campsites existing in Region 1. The plan states, "To satisfy unmet primitive campsite need, however, public agencies, particularly on the state level, should consider management policies that will utilize undeveloped recreation lands for primitive camping purposes." Pattison has such areas already accessible by snowmobile and ski trail routes. Development of up to three such sites are recommended in the ski trail section of the park. Cliffs prohibit such development in other areas. Requests for backpack camping

opportunities are periodically received at the park. In addition, interest has been expressed by a number of groups to develop such sites in a manner suitable for use by scouts and other groups wishing a "wilderness" type experience.

Picnicking opportunities exist wherever public camping is provided and in a number of Douglas County parks that do not offer camping. The demonstrated need for picnicking at Pattison Park indicates that the available opportunity exceeds the demand. This is not expected to change.

The opportunity for long hiking trails (over 15 miles) does not exist at Pattison. Pleasure walking trails (under 15 miles) are in greatest supply in Region 1 and SCORP predicts a modest need for increased development for trails of this type. Inquiries for longer trails than are presently available at Pattison are occasionally received at the park. Adaptation of existing snowmobile trails (5.5 miles) and ski trails (5 miles) will provide this opportunity, as well as offer visitors access to the Copper Creek waterfalls and gorge, the historical copper mining sites, the original Pattison logging camp, the big tree and wildlife management areas and other scenic and interesting portions of the park not now generally accessible.

SCORP indicates no additional need for ski trails in Region 1. Locally, in addition to the established trails at Pattison, groomed trails exist in the City of Superior (9 miles), the Brule River State Forest (7 miles), and the City of Duluth (12 miles - Spirit Mountain.) Ski trail use at Pattison has decreased since development of trails at the Duluth - Spirit Mountain recreation complex and "free" trails in Superior.

Region 1, according to SCORP, has the greatest amount of horseback riding trails in the state, and predicts no need for additional developments. In addition, more than 25% of Douglas County is in county ownership. This vast area is laced with trails and logging roads suitable for horseback riding. A small neighborhood demand does not justify trail development in view of the high development cost/user benefit ratio.

Pattison is on both the STH 35 route from the north and CTH B route from the east as identified by the Wisconsin Department of Tourism Bicycle Guide. SCORP shows Region 1 has the lowest demand in the state and lowest need for additional bike trails.

Region 1, according to SCORP shows no need for additional snowmobile trail development. The trail at Pattison connects with a local club trail which leads to the City of Superior and to Superior Municipal Forest trails. Park trails also join the vast Douglas County trail system although about a half-mile bottleneck connecting link presently exists. This matter will have to be resolved by the county forest administrator. Snowmobiling at Pattison Park has decreased significantly in recent years. Present use is primarily by local riders.

## ANALYSIS OF ALTERNATIVES

### No Change in Operations.

This alternative would be to continue the present uses and provide for no additional development. This choice is not desirable since all problems associated with present use would remain. No further development would not permit recreational uses for which the park is suited and for which there is demand.

### Eliminate or Reduce Acquisition and Alter Boundary.

Changes in proposed acquisition plans and the established boundary would result in encroachment of undesirable uses and developments. Further, acquisition to date has resulted in a patchwork of ownership in portions of the park. If left, this situation would result in boundary continuity and identification problems, trespass and restriction of recreational potential.

### Designation of Other Land Use Classifications.

Designation of land use classes other than those chosen (intensive recreation development areas, extensive recreation areas, and administrative areas) would limit the management that could be undertaken to increase the park's recreational opportunities. In addition, existing uses (i.e. snowmobile trail) might have to be eliminated.

### Moderate Additional Development on Existing State-Owned Land.

This alternative is the one proposed in this plan. It provides for development of recreational opportunities not now existing or in need of expansion. The development proposed are compatible with the park's physical limitations. In addition, service by the various DNR functions stationed at the park would be greatly improved.

### Additional Large Scale Development on Lands Within the Park Boundary.

This alternative would provide for all the actions identified in this plan. In addition, developments could be undertaken with a goal of creating a recreation demand not now present and establishing recreational facilities with an unrealistic cost/benefit ratio in relation to Department-wide fiscal considerations. This choice is not desirable.

APPENDIX I

PARTIAL PLANT INVENTORY

PATTISON STATE PARK

\* Known to be landscape plantings.

Horsetail Family

Devil's Gut  
Water Pipe  
Scouring Rush  
Wood Horsetail

EQUISETACEAE

Equisetum arvense L.  
E. fluviatile L.  
E. hymale L.  
E. sylvaticum

Clubmoss Family

Ground Pine

LYCOPODIACEAE

Lycopodium obscurum L.

Adder's Tongue Family

Grape Fern  
Rattlesnake Fern

OPHIOGLOSSACEAE

Botrychium simplex E. Hitch.  
B. virginianum (L) Sw.

Royal Fern Family

Interrupted Fern

OSMUNDACEAE

Osmunda claytoniana

Fern Family

Lady Fern  
Oak Fern  
Sensitive Fern  
Ostrich Fern  
Common Polypody  
Bracken Fern  
Northern Beech Fern

POLYPODIACEAE

Athrium Filix-Femina (L) Roth.  
Gymnocarpium dryopteris (L) Newm.  
Onoclea sensibilis L.  
Matteuccia struthiopteris  
Polypodium vulgare L. var. virginianum (L) Eat.  
Pteridium aquilinum L. Kuhn.  
Thelypteris phegopteris (L) Slosson

Yew Family

American Yew

TAXACEAE

Taxus canadensis Marsh

Pine Family

Balsam Fir  
Tamarack  
Norway Spruce\*  
White Spruce  
Scotch Pine\*  
Red Pine  
White Pine

PINACEAE

Abies balsamea (L) Mill  
Larix laricina (Du Roi) K. Koch  
Picea abies  
Picea glauca (Moench) Voss  
Pinus sylvestris  
P. resinosa Ait.  
P. strobus L.

Cypress Family

White Cedar

CUPRESSACEAE

Thuja occidentalis L.

Cat-tail Family

Narrow-leaved Cat-tail  
Cat-tail

TYPHACEAE

Typha angustifolia L.  
T. latifolia L.

Bur-reed Family

Bur-reed

Water Plantain Family

Arrow-head

Grass Family

Rough Hair-grass

Fringed Brome Grass

Northern Reedgrass

Sweet Reed-grass

Echinochloa

Virginia Wild Rye

Prairie Rush Grass

White Grained Mountain Rice

Timothy

Wire Grass

Sedge Family

Northern Clustered Sedge

Brownish Sedge

Fibrous-rooted Sedge

Fringed Sedge

Dewey's Sedge

Bladder Sedge

Bristle Stalked Sedge

Carex

Long Stalked Sedge

Pennsylvania Sedge

Retrorse Sedge

Pointed Broom Sedge

Awl-fruited Sedge

Fox Sedge

Dark-green Bulrush

Wool-grass

Arum Family

Sweet Flag

Jack-in-the-Pulpit

Water Arum

Duck Weed Family

Duckweed

Water-Flaxseed

Rush Family

Juncus

Juncus

Wood Rush

Many-flowered Rush

SPARGANIACEAE

Sparganium fluctuans (Marong) Robins

ALISMATACEAE

Sagittaria latifolia Willd.

Gramineae

Agrostis hyemalis (Walt.) BSP.

Bromus ciliatus L.

Culamagrostis inexpansa Gray.

Cinna latifolia (Trev.) Griseb

Echinochloa muricata (Beauv.) Fe.,.

Elymus virginicul L.

Muhlenbergia cuspidata (Torr.) Rydb

Oryzopsis asperifolia Michx.

Phleum pratense L.

Poa compressa L.

CYPERACEAE

Carex arctata Boutt.

C. brunnescens (Pers.) Poir.

C. communis Bailey

C. crinita Lam.

C. deweyana Cshw.

C. intumescens Rudge

C. leptalea Wahl.

C. peckii Howex

C. pendunculata Muhl.

C. pennsylvanica Lam.

C. retrosa Schw.

C. scoparia Schk.

C. stipata Muhl.

C. vulpinoidea Michx.

Scirpus atrovirens Willd.

S. cyperinus (L) Kunth

ARACEAE

Acorus calamus L.

Arisaema atrorubens (L) Blume

Calla palustris L.

LEMNACEAE

Lemna minor L.

Spirodela polyrhiza (L) Schleden

JUNCACEAE

Juncus interior Wieg.

J. Tenuis Willd.

Luzula acuminata Raf.

L. multiflora (Retz.) Lejeune

Lily Family

Wild Leek  
Wild Asparagus  
Blue-bead Lily  
Turk's Cap lily  
Canaga Mayflower  
Small Solomon's Seal  
False Solomon's Seal  
Twisted Stalk  
Nodding Trillium  
Bellwort  
Wild Oats

Iris Family

Blue Flag  
Blue-eyed Grass

Orchid Family

Spotted Coralroot  
Pale Coralroot  
Pink Moccasin Flower  
Large Yellow Lady's Slipper  
Round-leaved Orchis

Willow Family

Balsam Poplar  
Cottonwood  
Large-toothed Aspen  
Quaking Aspen  
Pussy Willow  
Long-beaked Willow  
Upland Willow  
Clumped Willow

Walnut Family

Butternut\*

Birch Family

Green Alder  
Speckled Alder  
Yellow Birch  
River Birch\*  
White Birch  
American Hazelnut\*  
Beaked Hazelnut  
Ironwood  
Hop Hornbeam

Beech Family

Swamp White Oak  
Northern Red Oak  
Bur Oak

LILIACEAE

Allium tricoccum Ait.  
Asparagus officinalis L.  
Clintonia borealis (Ait) Raf.  
Lilium superbum L.  
Maianthemum canadense Desf.  
Polygonatum pubescens (Willd.) Pursh  
Smilacina racemose (L) Desf.  
Streptopus roseus Michx., var. longipes (Fern) Fassett  
Trillium cernuum L.  
Uvularia grandiflora Sm.  
U. sessiliflora L.

IRIDACEAE

Iris vericolor L.  
Sisyrinchium campestre Bickn.

ORCHIDACEAE

Corallorhiza maculata Raf.  
C. Trifida Chatelain, var. verna (Nutt.) Fern.  
Cypripedium acoule Ait.  
C. calceolus L., var. pubescens (Willd) Correl  
Habenaria orbiculata (Pursh) Torr.

SALICACEAE

Populus balsamifera  
P. deltoides Marsh  
P. grandidentata Michx.  
P. tremuloides Michx.  
Salix discolor Muhl..  
S. bebbiana Sarg.  
S. humilis Marsh  
S. petiolaris Sm.

JUGLANDACEAE

Juglans cinerea L.

BETULACEAE

Alnus crispa (Ait) Pursh  
A. rugosa (DuRoi) Spreng.  
Betula alleghaniensis Britt.  
B. nigra  
B. Papyrifera Marsh  
Corylus americana  
C. cornuta Marsh  
Carpinus caroliniana Walt.  
Ostrya virginiana (Mill) L. Koch

FAGACEAE

Quercus bicolor Willd.  
Q. borealis Michx.  
Q. macrocarpa

Elm Family

Hackberry\*  
American Elm\*  
Slippery Elm\*  
Rock Elm

ULMACEAE

*Celtis occidentalis*  
*Ulmus americana* L.  
*U. rubra*  
*U. thomasi*

Nettle Family

Nettle

URTICACEAE

*Urtica chamaedryoides*

Birthwort Family

Wild Ginger

ARISTOLCHIACEAE

*Asarum canadense* L.

Smartweed Family

Common Knotgrass  
Prostrate Knotweed  
Nimble-Will  
Arrow-leaved Tearthumb  
Sheep Sorrel  
Yellow Dock  
Bitter Dock  
Patience Dock

POLYGONACEAE

*Polygonum achoreum* Blake  
*P. aviculare* L.  
*P. cilinode* Michx.  
*P. sagittatum* L.  
*Rumex acetosella* L.  
*R. crispus*  
*R. obtusifolius* L.  
*R. patientia* L.

Goosefoot Family

Goosefoot

CHENOPODIACEAE

*Chenopodium leptophyllum* Nutt.

Purslane Family

Carolina Spring Beauty

PORTULACACEAE

*Claytonia caroliniana*

Pink Family

Sandwort  
Common Mouse-ear Chickweed  
Mouse-ear Chickweed  
White Campion  
Starwort

CARYOPHYLLACEAE

*Arenaria lateriflora* L.  
*Cerastium fontanum* Baumg.  
*C. viscosum* L.  
*Lychnis alba* Mill.  
*Stellaria longifolia* Muhl.

Buttercup Family

White Baneberry  
Red Baneberry  
Canada Anemone  
Wood Anemone  
Columbine  
Marsh Marigold  
Purple Clematis  
Virgin's Bower  
Golden Thread  
Hepatica  
Small-flowered Crowfoot  
Tall Buttercup  
Bristly Crowfoot  
Hooked Crowfoot  
Swamp Crowfoot  
Meadow Rue  
Early Meadow Rue

RANUNCULACEAE

*Actea alba* (L) Mill.  
*A. rubra* (Ait) Willd.  
*Anemone canadensis* L.  
*A. quinquefolia* L., var. *interior* Fern.  
*Aquilegia canadensis* L.  
*Caltha palustris* L.  
*Clematis verticillaris* DC.  
*C. virginiana* L.  
*Coptis trifolia* (L) Salsb., var. *groenlandica* (Order)  
*Hepatica americana* (DC) Kern Fassett  
*Ranunculus abortivus* L.  
*R. acris* L.  
*R. pensylvanicus* L.  
*R. recurvatus* Poir.  
*R. septentrionalis* Poir  
*Thalictrum dasycarpum* Fisch. and Lall.  
*T. dioicum* L.

Barberry Family

Blue Cohosh

BERBERIDACEAE

*Caulophyllum thalictroides* (L) Michx.

Poppy Family

Bloodroot

PAPAVERACEAE

*Sanguinaria canadensis* L.

Fumitory Family

Dutchman's Breeches

FUMARIACEAE

*Dicentra cucullaria* (L) Bernh.

Mustard Family

Yellow Rocket

Shepards Purse

Hoary Alyssum

Whitlow Grass

Wormseed Mustard

Toothwort

Peppergrass

BRASSICACEAE

*Barbarea vulgaris* R.BR.

*Capsella bursa-pastoris* L.

*Berteroa incana* (L) DC

*Draba verna* L.

*Erysium cheiranthoides* L.

*Dentaria laciniata* Muhl.

*Lepidium densiflorum* Schrad.

Saxifrage Family

Bishop's Cap

American Black Currant

Prickly Gooseberry

Skunk Currant

Smooth Gooseberry

Black Currant

Garden Currant

Swamp Red Currant

Swamp Saxifrage

SAXIFRAGACEAE

*Mitella Nuda* L.

*Ribes americanum* Mill.

*R. cynosbati* L.

*R. glandulosum* Graur.

*R. hirtellum* Michx.

*R. nigrum* L.

*R. sativum* Syme

*R. triste* Pall., var. *albinervium* (Michx) Fern.

*Saxifraga pensylvanica* L.

Rose Family

Agrimony

Serviceberry

True Juneberry

Shad-bush

Juneberry

Hawthorn

Wood Strawberry

Wild Strawberry

Common Avens

Canada Avens

European Mountain Ash\*

American Mountain Ash

Ninebark\*

Silvery Cinquefoil

Tall Cinquefoil

Rough Cinquefoil.

Five-finger

Pin Cherry

Black Cherry\*

Choke Cherry

Apple

Northern Wild Rose

Red Raspberry

Thimbleberry

Common Blackberry

Dwarf Red Blackberry

Common Red Raspberry

ROSACEAE

*Agrimonia gryposepala* Wallr.

*Amelanchier interior* Nielson

*A. laevis* Wieg.

*A. spicata* (lam) K.Koch

*A. sanguinea* (Pursh) DC

*Crataegus* ssp.

*Fragaria vesca* L., var. *americana* Porter

*F. virginiana* Duchesne

*Geum alpicum* Jacq.

*G. canadense* Jacq.

*Sorbus aucuparia*

*S. decora* (Saig) Hyland

*Physocarpus opulifolius*

*Potentilla argentea* L.

*P. arguta* Pursh.

*P. norvegica* L., var. *Hirsuta* (Michx.) T. and G.

*P. recta* L.

*Prunus pensylvanica* L.

*P. serotina*

*P. virginiana* L.

*Pyrus malus* L.

*Rosa acicularis* Lindle

*Rubus idaeus* L., var *idaeus*

*R. parviflorus* Nutt.

*R. pergratus* Blanch.

*R. pubesens* Raf.

*R. strigosus*

Bean Family

Coronilla  
Black Medic  
White Sweet Clover  
Yellow Sweet Clover  
Wild Pea  
Vetchling  
Alsole Clover  
Red Clover  
Hop Clover  
White Clover  
Purple Vetch

FABACEAE

Coronilla scorpioides (L) Koch  
Medicago lupulina L.  
Melilotus alba Desr.  
M. officinalis (L) Gray  
Lathyrus ochroleucus Hook  
L. venosus  
Trifolium hybridum L.  
T. pratense L.  
T. procumbens L.  
T. repens  
Vicia americana Muhl.

Wood Sorrel Family

Yellow Wood Sorrel

OXALICACEAE

Oxalis stricta L.

Cashew Family

Poison Ivy  
Staghorn Sumac

ANACARDIACEAE

Rhus radicans L.  
R. typhina L.

Holly Family

Winterberry

AQUIFOLIACEAE

Ilex verticillata

Maple Family

Box Elder  
Schwedler Maple\*  
Emerald Lustre Maple\*  
Red Maple  
Northwood Maple\*  
Silver Maple  
Sugar Maple  
Mountain Maple

ACERACEAE

Acer negundo  
A. platanoides  
A. platanoides Pond  
A. rubrum L.  
A. rubrum Northwood  
A. saccharinum  
A. saccharum Marsh  
A. spicatum Lam.

Touch-Me-Not Family

Spotted Jewelweed

BALSAMINACEAE

Impatiens biflora Willd.

Grape Family

Virginia Creeper

VITACEAE

Parthenocissus vitacea (Knern) Hitch.

Linden Family

Basswood  
Little-feaf Linden\*

TILIACEAE

Tilia americana L.  
T. cordata

St. John's-Wort Family

St. John's-Wort

GUTTIFERAE

Hypericum sphaerocarpum

Violet Family

Hooked-spur Violet  
American Dog Violet  
Long Stemmed Marsh Violet  
Smooth Yellow Violet  
Northern White Violet  
Downy Yellow Violet  
Butterfly Violet  
Wooly Blue Violet

VIOLACEAE

Viola adunca Sm.  
V. conspersa Reichemb.  
V. cucullata Ait.  
V. eriocarpa Michx.  
V. pallens (Banks) Brainerd  
V. pubescens Ait.  
V. papilionaceae Pursh  
V. soronia Willd.

Evening Primrose Family

Enchanter's Nightshade  
Willow-Herb  
Fireweed  
Fringed Willow-Herb  
Evening Primrose

Ginseng Family

Wild Sarsaparilla  
Spikeweed  
Dwarf Ginseng

Parsley Family

Caraway  
Water Hemlock  
Cow Parsnip  
Sweet Cicely  
Sweet Jarvil  
Black Snake Root  
Water Parsnip  
Meadow Parsnip

Dogwood Family

Alternate-leaved Dogwood  
Silky Dogwood  
Bunchberry  
Gray Dogwood  
Red-Osier Dogwood

Shinleaf Family

One-Flowered Pyrola  
Indian Pipe  
Shinleaf  
Wild Lily-of-the-Valley

Heath Family

Wintergreen  
Labrador Tea  
Early Blueberry  
Velvet-leaved Blueberry

Primrose Family

Fringed Loostrife  
Yellow Loostrife  
Garden Loostrife  
Swamp Candles  
Starflower

Olive Family

White Ash  
Black Ash  
Green Ash  
Marshall's Seedless Ash\*  
Lilac\*

ONAGRACEAE

Circeae alpina L.  
Epilobium adenocaulon Haussk.  
E. angustifolium L.  
E. ciliatum Raf.  
Oenothera biennis L.

ARALIACEAE

Aralia nudicalis L.  
A. racemosa L.  
Panax trifolius L.

UMBELLIFERAE

Carum carvi L.  
Cicuta maculata L.  
Heracleum lanatum Michx.  
Osmorhiza chilensis H. ans A.  
O. claytonii (Michx.) C.B. Clark  
Sanicula marilandica L.  
Sium suave  
Thaspium trifoliatum (L) Gray, var. flavum Blake

CORNACEAE

Cornus alternifolia  
C. amomum  
C. canadensis L.  
C. racemosa  
C. stolonifera Michx.

PYROLACEAE

Moneses uniflora (L) Gray  
Monotropa uniflora L.  
Pyrola rotundifolia L., var. americana (Sweet) Fern.  
P. elliptica Nutt.

ERICACEAE

Gaultheria procumbens L.  
Ledum groenlandica Oeder  
Vaccinium angustifolium Ait.  
V. myrtilloides Michx.

PRIMULACEAE

Lysimachia ciliata L.  
L. producta (Gray) Fern.  
L. punctata L.  
L. terrestris (L) BSP  
Trientalis borealis Raf.

OLEACEAE

Fraxinus americana L.  
F. nigra Marsh  
F. pennsylvanica Marsh, Var subintegerrima (Vahl)F  
F. pennsylvanica lanceolata "Marshall's Seedless"  
Syringa vulgaris

<u>Gentian Family</u>	GENTIANACEAE
Closed Gentian	Gentiana rubricaulis Schw.
Spurred Gentian	Halenia deflexa (Sm) Griseb.
<u>Dogbane Family</u>	APOCYNACEAE
Spreading Dogbane	Asclepias incarnata L.
<u>Milkweed Family</u>	ASCLEPIADACEAE
Swamp Milkweed	Asclepias incarnata L.
Common Milkweed	A. syriaca L.
<u>Morning Glory Family</u>	CONVOLVULACEAE
Low Bindweed	Convolvulus spithameus L.
<u>Phlox Family</u>	POLEMONIACEAE
Sweet William	Phlox paniculata L.
<u>Borage Family</u>	BORAGINACEAE
Bluebells	Mertensia paniculata (Air) G. Don.
Forget-me-not	Myosotis laxa Lehm.
Scorpion Grass	M. scorpiodes L.
<u>Vervaine Family</u>	VERBENACEAE
Simpler's-Joy	Verbena hasta L.
<u>Mint Family</u>	LAMIACEAE
Bugle-weed	Lycopus americanus Muhl.
Self-Heal	Prunella vulgaris L.
Skullcap	Scutellaria lateriflora L.
<u>Nightshade Family</u>	SOLANACEAE
Bittersweet	Solanum dulcamara L.
<u>Figwort Family</u>	SCROPHULARIACEAE
Turtlehead	Chelone glabra L.
Hedge Hyssop	Gratolia neglecta Torr.
Monkey-Flower	Mimulus ringens L.
Figwort	Scrophularia lanceolata Pursh.
Common Mullein	Verbascum thapsus L.
Corn Speedwell	Veronica arvensis L.
Purslane Speedwell	V. pergrina L.
Marsh Speedwell	V. scutella L.
<u>Plantain Family</u>	PLANTAGINACEAE
Common Plantain	Plantago major L.
<u>Madder Family</u>	RUBIACEAE
Button-bush	Cephalanthus occidentalis
Slender Bedstraw	Galium parisiense L.
Marsh-Bedstraw	G. tinctorium L.
Sweet-scented Bedstraw	C. triflorum Michx.



APPENDIX II

BIRDS OF PATTISON STATE PARK AND VICINITY

1  
 Key: Abundance - C=Common, frequently observed in Pattison Park and immediate vicinity.  
 UC=Uncommon, occasionally observed in Pattison Park and immediate vicinity.  
 R=Rare, seldom observed in Pattison Park and immediate vicinity.  
 P=Probable, not known to occur in Pattison Park, but known to occur in vicinity of Park.

2  
 Status - S=Summer resident of Pattison Park and vicinity.  
 P=Permanent resident of Pattison Park and vicinity.  
 M=Spring/fall transient through Pattison Park and vicinity.  
 W=Winter visitant of Pattison Park and vicinity.

	1	2		1	2
	Abundance	Status		Abundance	Status
Common Loon	UC	S,M	Common Merganser	R	M
Red-Throated Loon	P	M	Red-breasted Merganser	R	M
Red-Necked Grebe	P	M	Turkey Vulture	R	M
Horned Grebe	R	S,M	Goshawk	R	P,M
Pied-Billed Grebe	UC	S,M	Sharp-shinned Hawk	R	P,M
White Pelican	P	M	Cooper's Hawk	R	P,M
Double-Crested Cormorant	P	S,M	Red-tailed Hawk	UC	S,M
Great Blue Heron	C	S,M	Red-shouldered Hawk	R	M
Green Heron	P	S,M	Broad-winged Hawk	C	S,M
Least Bittern	P	S,M	Rough-legged Hawk	UC	M
American Bittern	P	S,M	Golden Eagle	P	M
Whistling Swan	P	M	Bald Eagle	R	S,M
Canada Goose	R	M	Marsh Hawk	UC	S,M
Snow Goose	R	M	Osprey	UC	S,M
Mallard	C	S,M	Peregrine Falcon	P	M
Black Duck	UC	S,M	Merlin	P	M
Gadwall	P	M	American Kestrel	C	S,M
Pintail	P	M	Ruffed Grouse	C	P
Green-Winged Teal	UC	M	Sharp-tailed Grouse	P	P
Blue-Winged Teal	C	S,M	Ring-necked Pheasant	P	P
American Widgeon	UC	M	Sandhill Crane	P	M
Northern Shoveler	R	M	King Rail	P	M
Wood Duck	C	S,M	Virginia Rail	R	S,M
Redhead	UC	M	Sora	R	S,M
Ring-necked Duck	UC	S,M	Yellow Rail	P	M
Canvasback	UC	M	American Coot	R	M
Greater Scaup	R	M	Semipalmated Plover	P	M
Lesser Scaup	UC	M	Killdeer	C	S,M
Common Goldeneye	UC	M	American Golden Plover	P	M
Bufflehead	UC	M	Black-bellied Plover	P	M
Oldsquaw	P	M	Ruddy Turnstone	P	M
White-Winged Sca- ter	P	M	American Woodcock	P	M
Ruddy Duck	P	M	Common Snipe	UC	S,M
Hooded Merganser	UC	S,M	Whimbrel	P	M
			Upland Plover	P	M
			Spotted Sandpiper	R	S,M

	1	2
	<u>Abundance</u>	<u>Status</u>
Solitary Sandpiper	P	M
Greater Yellowlegs	P	M
Lesser Yellowlegs	UC	M
Willet	P	M
Pectoral Sandpiper	P	M
White-rumped Sandpiper	P	M
Baird's Sandpiper	P	M
Least Sandpiper	P	M
Dunlin	P	M
Semipalmated Sandpiper	P	M
Sanderling	R	M
Short-billed Dowitcher	R	M
Long-billed Dowitcher	P	M
Stilt Sandpiper	P	M
Marbled Godwit	UC	M
Hudsonian Godwit	P	M
Herring Gull	R	P
Ring-billed Gull	UC	S,M
Franklin's Gull	P	M
Bonaparte's	P	M
Forster's Tern	P	M
Common Tern	R	S,M
Caspian Tern	P	M
Black Tern	UC	S,M
Rock Dove	R	P
Mourning Dove	UC	S,M
Yellow-billed Cuckoo	R	M
Black-billed Cuckoo	R	S,M
Great Horned Owl	C	P
Snowy Owl	R	W
Hawk Owl	P	W
Barred Owl	C	P
Great Gray Owl	P	W
Long-eared Owl	P	S,M
Short-eared Owl	P	M
Boreal Owl	P	W
Saw-whet Owl	P	S,W,M
Whip-poor-will	R	S,M
Common Nighthawk	R	S,M
Chimney Swift	UC	S,M
Ruby-throated Hummingbird	C	S,M
Belted Kingfisher	C	S,M
Common Flicker	C	S,M
Pileated Woodpecker	R	P
Red-bellied Woodpecker	UC	M
Red-headed Woodpecker	R	M
Yellow-bellied Sapsucker	C	S,M
Hairy Woodpecker	C	P
Downy Woodpecker	C	P
Black-backed Three-toed Woodpecker	P	M

	1	2
	<u>Abundance</u>	<u>Status</u>
Northern Three-toed Woodpecker	P	W
Eastern Kingbird	C	S,M
Great-crested Flycatcher	C	S,M
Eastern Phoebe	C	S,M
Yellow-bellied Flycatcher	R	M
Alder Flycatcher	UC	S,M
Least Flycatcher	UC	S,M
Eastern Wood Pewee	C	S,M
Olive-sided Flycatcher	P	S,M
Horned Lark	R	M
Tree Swallow	C	S,M
Bank Swallow	C	S,M
Rough-winged Swallow	R	S,M
Barn Swallow	UC	S,M
Cliff Swallow	UC	S,M
Purple Martin	UC	S,M
Gray Jay	P	M
Blue Jay	C	P
Common Raven	C	P
Common Crow	C	P
Black-capped Chickadee	C	P
Boreal Chickadee	P	W
White-breasted Nuthatch	C	P
Red-breasted Nuthatch	C	P
Brown Creeper	R	S,M
House Wren	UC	S,M
Winter Wren	R	S,M
Long-billed Marsh Wren	R	S,M
Short-billed Marsh Wren	UC	S,M
Catbird	C	S,M
Brown Thrasher	C	S,M
Robin	C	S,M
Wood Thrush	UC	S,M
Hermit Thrush	R	S,M
Swainson's Thrush	R	S,M
Gray-cheeked Thrush	P	M
Veery	C	S,M
Eastern Bluebird	R	S,M
Golden-crowned Kinglet	UC	S,M
Ruby-crowned Kinglet	C	S,M
Water Pipit	P	M
Bohemian Waxwing	R	W
Cedar Waxwing	C	S,M
Northern Shrike	R	W
Loggerhead Shrike	P	M
Starling	UC	P
Yellow-throated Vireo	R	S,M
Solitary Vireo	UC	S,M
Red-eyed Vireo	C	S,M
Philadelphia Vireo	P	S,M
Warbling Vireo	R	S,M
Black-and-White Warbler	R	S,M
Golden-winged warbler	R	S,M
Tennessee Warbler	R	M
Orange-crowned Warbler	P	M
Nashville Warbler	UC	S,M
Northern Parula	R	M

	1	2
	<u>Abundance</u>	<u>Status</u>
Yellow Warbler	UC	S,M
Magnolia Warbler	R	S,M
Cape May Warbler	P	M
Black-throated Blue Warbler	P	M
Yellow-rumped Warbler	C	S,M
Black-throated Green Warbler	P	S,M
Blackburnian Warbler	UC	S,M
Chestnut-sided Warbler	C	S,M
Bay-breasted Warbler	R	M
Blackpoll Warbler	UC	M
Pine Warbler	C	S,M
Palm Warbler	R	M
Ovenbird	UC	S,M
Northern Waterthrush	R	S,M
Connecticut Warbler	P	M
Mourning Warbler	R	S,M
Common Yellowthroat	C	S,M
Yellow-breasted Chat	P	M
Wilson's Warbler	R	M
Canada Warbler	R	S,M
American Redstart	UC	S,M
House Sparrow	R	P
Bobolink	UC	S,M
Eastern Meadowlark	R	S,M
Western Meadowlark	R	S,M
Yellow-headed Blackbird	R	S,M
Red-winged Blackbird	C	S,M
Northern Oriole	UC	S,M
Rusty Blackbird	P	M
Brewer's Blackbird	R	S,M
Common Grackle	C	S,M
Brown-headed Cowbird	C	S,M
Scarlet Tanager	UC	S,M
Cardinal	R	S,M
Rose-breasted Grosbeak	UC	S,M
Indigo Bunting	UC	S,M
Dickcissel	P	M
Evening Grosbeak	C	P
Purple Finch	UC	S,M
Pine Grosbeak	UC	W
Hoary Redpoll	R	W
Common Redpoll	C	W
Pine Siskin	UC	P
American Goldfinch	UC	S,M
Red Crossbill	R	W
White-winged Crossbill	P	W
Rufus-sided Towhee	R	S,M

	1	2
	<u>Abundance</u>	<u>Status</u>
Savannah Sparrow	C	S,M
Grasshopper Sparrow	R	M
LeConte's Sparrow	P	S,M
Vesper Sparrow	UC	S,M
Dark-eyed Junco	C	M
Tree Sparrow	C	M
Chipping Sparrow	C	S,M
Clay-colored Sparrow	UC	S,M
Field Sparrow	R	M
Harris' Sparrow	R	M
White-crowned Sparrow	UC	M
White-throated Sparrow	C	S,M
Fox Sparrow	UC	M
Lincoln's Sparrow	R	M
Swamp Sparrow	UC	S,M
Song Sparrow	C	S,M
Lapland Longspur	R	M
Snow Bunting	UC	W,M

APPENDIX III

MAMMALS OF PATTISON PARK AND VICINITY

Key: Abundance - C=Common, frequently observed in Pattison Park and immediate vicinity.  
 UC=Uncommon, occasionally observed in Pattison Park and immediate vicinity.  
 R=Rare, seldom observed in Pattison Park and immediate vicinity.  
 P=Probable, not known to occur in Pattison Park, but known to occur in vicinity of Park.

	<u>Abundance</u>		<u>Abundance</u>
Masked Shrew	C	Southern Bog Lemming	UC
Arctic Shrew	R	Boreal Redback Vole	C
Northern Water Shrew	R	Meadow Vole	UC
Pigmy Shrew	R	Muskrat	C
Shorttail Shrew	C	Norway Rat	UC
Starnose Mole	UC	House Mouse	C
Little Brown Bat	UC	Meadow Jumping Mouse	R
Eastern Long-eared Bat	P	Woodland Jumping Mouse	UC
Silver-Haired Bat	P	Porcupine	C
Big Brown Bat	P	Snowshoe Hare	C
Red Bat	P	Eastern Cottontail	UC
Hoary Bat	R	Whitetail Deer	C
Black Bear	C	Moose	P
Raccoon	C		
Fisher	R		
Shorttail Weasel	UC		
Least Weasel	P		
Longtail Weasel	UC		
Mink	C		
River Otter	C		
Badger	R		
Striped Skunk	C		
Coyote	C		
Timber Wolf	P		
Red Fox	UC		
Lynx	P		
Bobcat	R		
Woodchuck	C		
Thirteen-Lined Ground Squirrel	C		
Franklin Ground Squirrel	P		
Eastern Chipmunk	C		
Least Chipmunk	R		
Eastern Gray Squirrel	C		
Eastern Fox Squirrel	R		
Red Squirrel	C		
Northern Flying Squirrel	C		
Plains Pocket Gopher	R		
Beaver	C		
Woodland Deer Mouse	C		
White-footed Mouse	C		

APPENDIX IV

REPTILES AND AMPHIBIANS OF PATTISON PARK AND VICINITY

Key: Abundance - C=Common, frequently observed in Pattison Park and immediate vicinity.  
 UC=Uncommon, occasionally observed in Pattison Park and immediate vicinity.  
 R=Rare, seldom observed in Pattison Park and immediate vicinity.  
 P=Probable, not known to occur in Pattison Park, but known to occur in vicinity of Park.

<u>Reptiles</u>	<u>Abundance</u>
Common Snapping Turtle	R
Wood Turtle	UC
Blanding's Turtle	P
Painted Turtle	C
Northern Ringneck Snake	R
Eastern Hognose Snake	P
Eastern Garter Snake	C
Brown Snake	P
Northern Red-Bellied Snake	C

<u>Amphibians</u>	<u>Abundance</u>
Blue-Spotted Salamander	UC
Spotted Salamander	UC
Central Newt	P
Four-Toed Salamander	P
Red-Backed Salamander	C
Mudpuppy	C
American Toad	C
Chorus Frog	UC
Spring Peeper	C
Cope's Gray Treefrog	UC
Eastern Gray Treefrog	C
Bullfrog	P
Green Frog	C
Pickerel Frog	P
Northern Leopard Frog	UC
Mink Frog	UC
Wood Frog	C

APPENDIX VI

FISHES OF PATTISON STATE PARK

Key: Abundance - C=Common, abundant resident of park waters.  
 UC=Uncommon, present but not in large numbers.  
 R=Rare, seldom collected.  
 P=Probable, not documented in park waters, but known to occur in waters flowing through the park.

<u>Species</u>	<u>Status</u>	<u>Remarks</u>
Brook Trout	UC	Native populations in Black River and Copper Creek
Brown Trout	UC	Native populations in Black River
Rainbow Trout	UC	Stocked in Interfalls Lake and upstream to Little Manitou Falls
Chinook Salmon	C	Abundant to Big Manitou Falls during fall spawning runs
Steelhead	UC	Occasionally observed to Big Manitou Falls during spring spawning runs
Black Bullhead	C	Abundant in Interfalls Lake
Longnose Sucker	C	Abundant to Big Manitou Falls during spring spawning runs
White Sucker	C	Abundant resident of park waters
Creek Chub	C	Abundant resident of park waters
Common Shiner	C	Abundant resident of park waters
Brassy Minnow	C	Abundant resident of park waters
Black Nose Shiner	C	Abundant resident of park waters
Crappie	R	Last known individual caught in 1969 in Interfalls Lake
Largemouth Bass	R	Three specimens collected below Big Manitou Falls in 1981
Rock Bass	C	Frequently caught in Interfalls Lake and occasionally in the Black River
Troutperch	P	Collected in the Black River downstream from the park by U.S. Fish and Wildlife Service
Logperch	P	Collected in the Black River downstream from the park by U.S. Fish and Wildlife Service.
Stone Cat	P	Collected in the Black River downstream from the park by U.S. Fish and Wildlife Service
Blacknose Dace	P	Collected in the Black River downstream from the park by U.S. Fish and Wildlife Service
Brook Stickleback	C	Found in all waters of the park
Perch	R	Three specimens taken from Interfalls Lake in 1981
Sea Lamprey	UC	Status varies to Big Manitou Falls - controlled by the U.S. Fish and Wildlife Service chemical treatments
Burbot	P	It is likely individuals reach park waters during winter spawning runs



# The State of Wisconsin

SCIENTIFIC AREAS PRESERVATION COUNCIL

Box 7921  
Madison, Wisconsin 53707

JUN 1984

June 6, 1984

IN REPLY REFER TO: 2100

Mr. David Weizenicker  
Bureau of Parks and Recreation  
Department of Natural Resources  
Box 7921  
Madison, WI 53707

Dear Dave:

We have completed our review of the Pattison State Park Concept Master Plan and have a recommendation regarding Big Manitou Falls.

Council members discussed the merits of recognizing Big Manitou Falls as a State Scientific Area at their May 23 meeting. The feature already has good protection under state park management; however, we have recently included Big Manitou Falls in a preliminary classification and listing of the most important state geological features (Scientific Areas Long Range Plan). We also recognize that heavy public use occurs on the site, but since the feature is not fragile, the usual scientific area management guidelines may be amended to allow facilities for public use.

We recommend that the plan be amended to provide for scientific area designation of the falls and gorge area within the hiking trails on each side of the Black River. This designation should not hinder park management and would give appropriate recognition to this important geological feature.

Cordially,

  
Forest Stearns  
Chairman

25350

# CORRESPONDENCE/MEMORANDUM

STATE OF WISCONSIN

JUN 21 1984

Date: June 21, 1984

File Ref: 2400

To: Dave Weizenicker - P&R/4

From: Dick Lindberg - FOR/4 *RL*

Subject: Pattison State Park Master Plan

The Wild Resources Advisory Council apparently does not wish to respond to the plan for this property at this time as no comments were received by the liaison.

I will inform you should the Council decide to comment at a later date.

DL:dj

# CORRESPONDENCE/MEMORANDUM

STATE OF WISCONSIN

Date: June 25, 1984

File Ref: 2510

To: Cliff Germain - ER/4

From: D. Weizenicker *D. Weizenicker*

Subject: SAPC Comments on Pattison State Park Master Plan

This is in response to the Council's recommendation for scientific area designation of the Big Manitou Falls and gorge area at Pattison State Park.

The Northwest District is opposed to establishing Big Manitou Falls and gorge area as a scientific area. They feel that since the site is a heavy public use area, they are concerned about any type of management restrictions that may be imposed as a result of scientific area designation.

In addition, the significance of the Manitou Falls site is strictly geological and already protected by state ownership and park administrative rules.

We concur with the District and are recommending that the "Falls" site not be designated as a scientific area in the Pattison Master Plan.

We thank the Council for its review of the master plan.

DJK:sb

cc: J. Treichel - P&R/4

→ D. Kulhanek - P&R/4

D. Jacobson - Spooner

Note: (This revision combines Form 1600-1 and  
1600-2 into one form.)

DISTRICT OR BUREAU	Northwest
DOCKET NUMBER	NR 150.03 (2) (e) 4, # 1707
TYPE LIST DESIGNATION(S)	↙

ENVIRONMENTAL ASSESSMENT  
(ATTACH ADDITIONAL SHEETS IF NECESSARY)  
(REFERENCE INFORMATION SOURCES UTILIZED)

*photo copy to Bill Clark  
This is one of the best  
EAs I've ever reviewed  
please compliment  
the author  
F. P. Clark  
4/12/84  
rnt*

Applicant: Wisconsin Department of Natural Resources  
Pattison State Park Master Plan

Title of Proposal: \_\_\_\_\_

Location: County Douglas  
Township 47 North, Range 14 East, West  
Section(s) 14, 15, 21, 22, 23, 27, 28  
Political Town Superior

PROJECT SUMMARY

- General Description (brief overview)**  
The conceptual phase of the Pattison State Park master plan includes goals, objectives and recommended actions and includes support information used to arrive at the development proposals. Management and development plans include fee acquisition, forest, fish and wildlife improvement programs, and establishes land use classification. The plan also proposes construction of new office and garage facilities, construction of group and back pack camping areas, development of an outdoor council ring, roadway relocation, picnic area improvement and expansion of interpretive facilities.
- Purpose and Need (include history and background as appropriate)**  
The purpose of this plan is to comply with the Natural Resource Board Policy, M.C. 2103.1 on Master Plans for Department properties. The plan is needed to set long range goals and objectives, and provide for land acquisition, development and operations of the park in such a way as to allow sound decision making, consistency in management, and input from the public and other agencies.
- Authorities and Approvals (list statutory authority and other relevant local, state and federal permits or approvals required)**  
State Statute 27.01, Wisconsin Statutes  
Douglas County Land Use Permit  
Douglas County Sanitary Permit  
DNR Pesticide Use *Approval Form (NWD)*
- Estimated Cost and Funding Source**  
Costs are unknown at this time and will depend on the number of willing sellers, project approvals and availability of funds. Potential funding sources include segregated funds, ORAP bonding, ORAP formul-Parks, LAWCON, major building maintenance and special funds such as WCC, SBA, etc.

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**PROPOSED PHYSICAL CHANGES**

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**5. Manipulation of Terrestrial Resources (include relevant quantities - sq. ft., cu. yds., etc.)**

No major manipulation of terrestrial resources is planned. Some fill will be required to accommodate a fire control equipment building. The group camp will require construction of a parking facility and shaping of campsites. Minor work is needed to adapt ski and snowmobile trails for hiking, for development of backpack camping and office construction.

**6. Manipulation of Aquatic Resources (include relevant quantities - cfs., acre feet, MGD, etc.)** Manipulation of water levels of Interfalls Lake was approved following preparation of an EA in September 1983. In summary, water levels are lowered to prevent shoreline erosion during spring runoff, make dam repairs, for visitor safety following heavy rains and for recovery of drowning victims. Normal maximum water depth of 13 feet can be drawn down to 10 feet through manipulation of the dam gate. Further drawdown to 5 feet can be accomplished, if necessary, by opening a sluice gate. Lowering and raising water levels will be done gradually so as not to cause problems downstream to aquatic life or water users. See Master Plan pages 2, 5, and 6 for fish management recommendations and justifications.

**7. Buildings, Treatment Units, Roads and Other Structures**

See development section of Pattison Master Plan. Additional structures include an office/contact station, fire control equipment storage buildings and pit toilet facilities at the proposed new camping areas.

**8. Emissions and Discharges**

No change is anticipated in the discharge of treated discharges from the park's sewage treatment plant.

**9. Other Changes**

None.

**10. Attach Maps, Plans and Other Descriptive Material as Appropriate (list)**

Refer to Pattison Master Plan for location, acquisition, development and resource maps.

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**AFFECTED ENVIRONMENT**

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Information Based On (check all that apply):

Literature/correspondence

Personal Contacts (list in item 31)

Field Analysis By:  Author,  Other (list in item 31)

Past Experience With Site By:  Author,  Other (list in item 31)

11. **Physical (topography - soils - water - air - wetland amounts and types)**  
The park's 1369.5 acres can be separated into: 73.5 a. intensive recreation development/right-of-ways/administrative areas; 44 a. water; 123 a. grass/brushlands; and 1129 a. forested. Lying on the Douglas fault, the park has three roughly equal zones of lacustrian clay, glacial beach sands and recessional moraine soils. Three waterfalls meanders through the park including Wisconsin's highest at 165'. The Black River falls Lake. There are scenic gorges below the falls on Copper Creek and the lower falls on the Black River.
12. **Biological**

**a. Flora**

Forest cover consists of Aspen (445 acres), Northern Hardwood/Red Oak (319 acres), White Birch (187 acres), Swamp Conifers (48 acres), Red and White Pine (44 acres), and Fir/ Spruce (26 acres). In addition 97 acres, mostly former agriculture fields, are in grass and 26 acres in brush, both lowland and upland. A floristic inventory has produced a preliminary list of 332 species.

**b. Fauna**

Fish in park waters consist primarily of trout and minnows. Management will consist of a put and take rainbow trout fishery. The park is a wildlife refuge. Most of the species of birds and mammals typical of Douglas County can be found in the park. Management will consist of forest manipulation. Establishment of ponds will be evaluated.

13. **Social/Economic (include ethnic and cultural groups, and zoning if applicable)**  
The park has prompted the development of a rural community surrounding the property. Businesses within a mile of the park include a private campground, golf course/club house, and four taverns. Considerable use of the park is through walk-in, bike-in and drop off visitations. Zoning of public lands is forestry. Lands to be acquired are zoned forestry or residential. An active sand pit, zoned forestry, makes up 80 acres of the proposed acquisition.

14. **Other Special Resources (e.g., archaeological, historical, endangered/threatened species, scientific areas, natural areas)**

Although the State Historical Society has no documented sites within the park or proposed acquisition areas, evidence does exist of past Indian activities, 19th century logging, including Pattison's original camp, coppermining and a Civilian Conservation Corps camp. The park has a rich historical heritage that must be researched and documented so that it can be preserved for the education and enjoyment of future generations.

**ENVIRONMENTAL CONSEQUENCES (probable adverse and beneficial impacts including indirect and secondary impacts)**

**15. Physical (include visual if applicable)**

Land acquisition will have no direct physical impact. Proposed developments will have a minimal effect on the physical features of the park. Construction will be undertaken after careful planning to minimize erosion. No impact on water or air quality is anticipated. *Use of herbicides (eg. Roundup) in late summer/early fall will minimize the aesthetic impact of treated vegetation whose leaves turn brown + die.*

2/21/8  
WHE  
(Author)  
LCC/CA

- 16. Biological** Plant life will be directly affected through forest management practices to encourage zones of "big tree" growth and wildlife habitat. Areas of special significance will be protected. In addition, disruption of the flora will occur in a number of proposed developments. These, though unavoidable, will be kept to a minimum. Improvements through plantings are planned. Forest management for wildlife habitat will increase wildlife populations for the esthetic enjoyment of park visitors. In addition, the park refuge will provide stock to adjacent properties for hunting opportunities. Proposed fish management activities will enhance fishing potential. Strip application of approved herbicides (eg. Roundup) by DNR certified operators to maintain park boundaries will adversely affect plant life but enhance wildlife "openings" and vegetation diversity. *Roundup, if used, would be applied with a backpack mist blower.*
- 17. Social/Economic (include ethnic and cultural groups and zoning if applicable)**

Improvement of the park as proposed will encourage only a modest increase in visitor numbers. It will, however, provide a wider range of recreational opportunities. Local businesses and churches should likewise experience some increases. Land acquisition will have no significant impact on local taxes or land values. Lands purchased for the park will not be able to be subdivided or developed for private gain and a residence would be removed from the commercial market. An active sand pit business is included within the proposed boundary. It is not anticipated acquisition will occur during the life of the available resource. Existing situations where adjacent landowners must cross park property for access where no practical alternative is available will be granted access agreements or easements as appropriate. Proposed building construction will consolidate employees, reduce utility and maintenance costs, improve visitor service and revenue collections, improve fire control readiness, reduce vandalism and equipment maintenance costs. Proposed roadway relocation will improve traffic flow patterns and increase pedestrian safety. *All herbicide applications will strictly follow label guidelines + precautions taken to minimize drift on non-target plants on adjacent properties.*

**18. Other Special Resources (e.g., archaeological, historical, endangered/threatened species, scientific areas, natural areas)**

Protection and interpretation of the logging and copper mining areas will promote the understanding and appreciation of the cultural heritage of the park and community. As information is gathered of historical or archeologic significance the State and local historical organizations will be notified. Continued protection of endangered/threatened species and their habitats will benefit these creatures.

**19. Probable Adverse Impacts That Cannot Be Avoided**

Proposed construction will result in an irretrievable loss of energy resources. A minor loss of plant life and displacement of animal life will occur in construction areas. Developments to allow increased use of extensive areas of the park will result in increased disturbance of wildlife. Acquisition will place additional lands in refuge status and have a minor affect on the amount of huntable lands surrounding the park.

20. Identify, describe and discuss feasible alternatives to the proposed action and their impacts. Give particular attention to alternatives which might avoid some or all adverse environmental effects.

1. No Change in Operations.

This alternative would be to continue the present uses, provide for no additional development. This alternative is not desirable since all problems associated with present use would remain. No further development would not permit recreational uses for which the park is suited and for which there is demand.

2. Eliminate or Reduce Acquisition and Alter Boundary.

Changes in proposed acquisition plans and the established boundary would result in encroachment of undesirable uses and developments. Further, acquisition to date has resulted in a patchwork of ownership in portions of the park. If left, this situation would result in boundary continuity and identification problems, trespass and restriction of recreational potential.

3. Designation of Other Land Use Classifications.

Designation of land use classes other than those chosen (intensive recreation development areas, extensive recreation development and administrative areas) would limit the management that could be undertaken to increase the park's recreational opportunities. In addition, existing uses (ie snowmobile trail) might have to be eliminated.

4. Moderate Additional Development on Existing State-Owned Lands.

This alternative is the one proposed in this plan. It provides for development of recreational opportunities not now available or in need of expansion. The developments proposed are compatible with the park's physical limitations. In addition, service by various DNR functions stationed at the park would be greatly improved.

5. Additional Large Scale Development on Lands Within the Park Boundary

This alternative would provide for all the actions identified in this plan. In addition, developments could be undertaken with a goal of creating a recreation demand not now present and establishing recreational facilities with an unrealistic cost/benefit ratio in relation to Department-wide fiscal considerations. This choice is not desirable.

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**EVALUATION (Discuss each category. Attach additional sheets and other pertinent information if necessary.)**

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21. **Secondary Effects:** As a result of this action, is it likely that other events or actions will happen that may significantly affect the environment? If so, list here and reference their discussion in items 15-18 as appropriate.

The existance of the park will continue to encourage development of a periferal residential area. The actions proposed in the master plan will, however, have no impact on this growth.

22. **New Environmental Effect:** Does the action alter the environment so a new physical, biological or socio-economic environment would exist? If so, list here and reference their discussion in items 5-10 or 15-18 as appropriate.

No.

23. **Geographically Scarce:** Are the existing environmental features that would be affected by the proposed action scarce, either locally or statewide? If so, list here and reference their discussion in items 15-18 as appropriate.

No.

24. **Precedent:** Does the action and its effect(s) require a decision which would influence future decisions? Describe.

No.

25. **Controversy:** Discuss and describe concerns which indicate a serious controversy or unresolved conflicts concerning alternative uses of available resources.

No serious concerns have been raised regarding this action.

26. Consistency With Plans: Does the action conflict with local or agency zoning or with official agency plans or policy of local, state or federal government (e.g., NR 1.95)? If so, how? Refer to applicable comments in item 31.

No.

27. Cumulative Impacts: While the action by itself may be limited in scope, would repeated actions of this type result in major or significant impacts to the environment?

The management and development recommended in the master plan are a result of recreation demand factors. It is not feasible that demand will result in repeated actions.

28. Foreclose Future Options: Is the action irreversible? Will it commit a resource (e.g., energy, habitat, historical features) for the foreseeable future?

No.

29. Socio-cultural Impacts: Will action result in direct or indirect impacts on ethnic or cultural groups or alter social patterns?

No

Yes, refer to item 17.

30. Other:

None

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LIST OF AGENCIES, GROUPS AND INDIVIDUALS CONTACTED REGARDING THE PROJECT (Include DNR personnel and Title)

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31.	<u>Date</u>	<u>Contact</u>	<u>Comment Summary</u>
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See attached sheet.

1207

RECOMMENDATION

EIS Not Required.....

Analysis of the expected impacts of this proposal is of sufficient scope and detail to conclude that this is not a major action which would significantly affect the quality of the human environment. In my opinion therefore, an environmental impact statement is not required prior to final action by the Department on this project.

Refer to Office of the Secretary.....

Major and Significant Action: Prepare EIS.....

Request EIR.....

Additional factors, if any, affecting the evaluator's recommendation:

As identified on page 2, item 6, an Environmental Assesment was certified on 9/16/83 for the manipulation of water levels on Interfalls Lake; recommendation - no Environmental Impact Statement was needed.

SIGNATURE OF EVALUATOR <i>John V. Semo</i>	DATE 2/14/84
NOTED: AREA SUPERVISOR OR BUREAU DIRECTOR <i>J.L. Rieckhoff by W.K. Gibson</i>	DATE 2/16/84

Number of responses to public notice 0

Public response log attached?..... NA

*- comments addressed 2/21/84 WKE*

CERTIFIED TO BE IN COMPLIANCE WITH WEPA  
DISTRICT DIRECTOR OR DIRECTOR OF BEI (OR DESIGNEE)

*James P. Schramm*

DATE  
5/18/84

This decision is not final until certified by the appropriate District Director or the Director of BEI. If you believe you have a right to challenge this decision, you should know that Wisconsin Statutes and Administrative Codes establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to ss. 227.15 and 227.16, Stats., you have 30 days after service of the decision to file your petition for review. The respondent in an action for judicial review is the Department of Natural Resources. You may wish to seek legal counsel to determine your specific legal rights to challenge a decision. This notice is provided pursuant to s. 227.11(2), Stats.

31.	<u>Date</u>	<u>Contact</u>	<u>Comment Summary</u>
	4/18/83	Joan Freeman-State Archeologist	No Sites
	4/13/83	Dan Feller-Areas Research Center, Ashland	No Information
	4/13/83	Edward Grave-Area Research Center, Superior	No Information
	3/16/83	Superior Town Board	Would like to see additional acquisition of gorge below Big Falls.
	10/12/82	Tim Mathewson-Curator, Douglas County Historical Museum	No Input
	3/3/83	Town of Superior VFD	Would like backpack campsites built to accommodate scout groups.
	3/16/83	Alice Tomczak-President, Manitou Valley Water Association	Concerned that increased park use would affect Association's water supply
	10/6/82	Donald Jorgensen-DOT	Not possible to relocate S.T.H. 35.
	4/10/83	Leo Larson-DOT	No plans to relocate C.T.H. B.
	10/12/82	Cliff Germaine-SAPC	No interest in Pattison.
	1/4/83	Steve Andrews-Northwest Regional Planning Commission	No Input
	3/25/82	Dick Isle-Arrowhead Regional Planning Commission	No Input
	5/16/83	Thomas Hendrickson-Douglas County Historical Museum	No Input
	10/10/83	Douglas County Historical Society	No Input
	9/8/83	Town of Superior VFD Auxillary	More Ski Trails.
	4/27/83	Masonic Lodge #236	No input.
	4/19/83	Jerry Baer-Birch Trail Camp	Want group campground.
	4/25/83	Bernard Stein-Camp Nebagamon	Would like group and backpack camp sites
	1983	Park campers and day users through personal contacts during interpretive program and posted requests for input - Generally satisfied, frequent comments on more hiking trails and more interpretation. Group and backpack camping opportunities thought to be worthy developments.	
	1983	Jerome L. Rieckhoff-Area Director, Brule	Boundary/acreage goals.
	1983	Arthur C. Clarke-Area Ranger, Brule	" "
	1983	Wayne Gibson-Land Agent, Brule	" "
	1983	Michael Ries-DNR Park Planner	Master Plan Task Force
	1983	Anthony Panek-DNR Forester/Ranger	" "
	1983	Fred Strand-DNR Wildlife Manager	" "
	1983	Steve Schram-DNR Fish Manager	" "
	1983	Joseph Davidowski-DNR Conservation Warden	" "
	1983	Lyle Downey	Would like bridal trails.
	1983	Thirteen group camp organizations that have camped at Pattison Park - No response	
	5/9/83	Dawn Ace-Douglas County 4-H Clubs, Inc.	Would like group camp, backpack camp areas and an amphitheatre-type area.
	1983	William Kowalski-Soil Conservation Service.	Soil Limitations.
	10/19/82	Kim Peters-State Historical Society of WI.	Nothing of significance recorded for Pattison Park.

# CORRESPONDENCE/MEMORANDUM

STATE OF WISCONSIN

Date: June 25, 1984

File Ref: 2510

To: L. Posekany - EI/3

From: D. Weizenicker *DW*

Subject: Amendment to EA #1707 - Pattison State Park Master Plan Concept Element

The following amends environmental assessment #1707 prepared for the Pattison State Park Master Plan.

Page 2, Item 5 - Add "Portions of the park boundary will be cleared of brush and signed to aid enforcement of the "No Hunting" regulation. Vegetation will be controlled by hand removal and the application of approved herbicides in areas where hand removal is not practical."

Page 6, Item 25 - Add "Public reaction to the use of herbicide could be expected."

After reviewing the original assessment and this amendment, we believe the impacts of the Pattison State Park Master Plan proposals have been adequately addressed.

DJK:sb

~~cc~~ → D. Kulhanek - P&R/4  
W. Richie - Spooner

