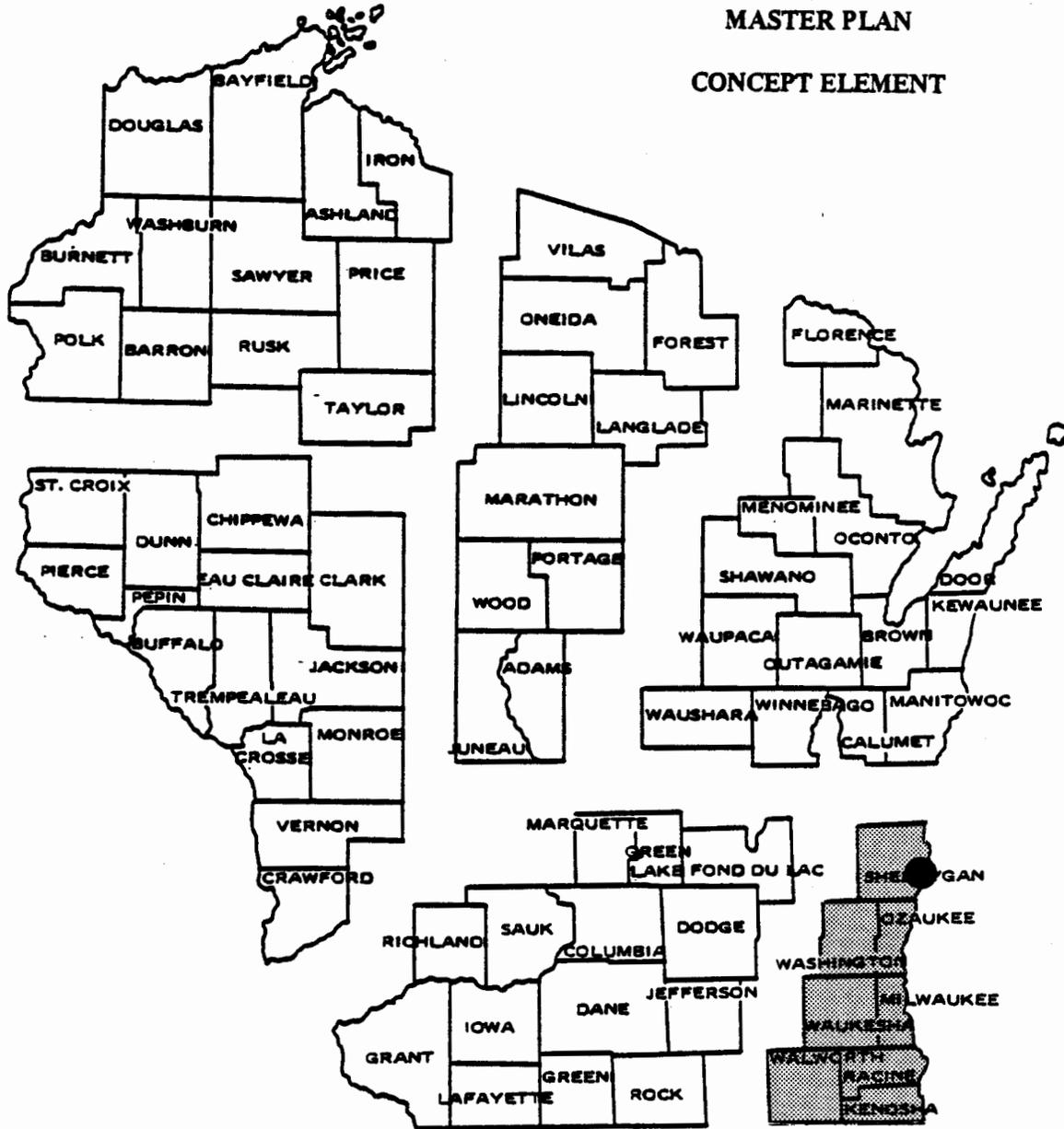


JOHN MICHAEL KOHLER-TERRY ANDRAE

STATE PARKS

MASTER PLAN

CONCEPT ELEMENT



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Date: APRIL 23, 1989

WISCONSIN DEPARTMENT OF NATURAL RESOURCES  
MADISON, WISCONSIN



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## MASTER PLAN CONCEPT ELEMENT

### JOHN MICHAEL KOHLER-TERRY ANDRAE STATE PARKS

#### SECTION I - ACTION

Kohler-Andrae State Parks are located in Sheboygan County on the shore of Lake Michigan. The parks are characterized by their active and stabilized dunes with an interesting array of vegetation and wildlife. Traditional recreation activities such as swimming, camping, picnicking, fishing, and nature study are offered.

#### A. GOAL, OBJECTIVES, AND ADDITIONAL BENEFITS

##### Goal

Preserve a representative part of the Lake Michigan shoreline in southeastern Wisconsin, its dunes, vegetation, and wildlife, and provide for recreational and educational activities compatible with preservation and appreciation of the natural resources such as camping, picnicking, swimming, nature study, fishing, and other uses. Provide an intensive educational program emphasizing Lake Michigan, its coastal, natural, and cultural resources.

##### Annual Objectives

1. The John Michael Kohler State Park will be kept in a more natural state with recreational activities limited primarily to nature study, hiking, cross-country skiing, fishing and horseback riding. Terry Andrae State Park will be managed for camping, picnicking, swimming, fishing and other day-use activities.
2. Accommodate individuals who are handicapped or disadvantaged through the proper design, construction, and management of the park facilities.
3. Provide picnic area facilities to accommodate 170,000 users.
4. Provide opportunities for 60,000 campers.
5. Provide opportunities for 150,000 swimmers.
6. Provide nature trails and a nature center facility for 50,000 park visitors.
7. Protect a 285-acre State natural area for education and scientific study.

### Additional Benefits

1. Develop an active educational program by establishing a more intensive interpretive program, modifying the existing nature center, and developing interconnected trails and access into dunes and marsh areas.
2. Manage existing fish and wildlife habitat to encourage species diversity for educational and recreational use.

### B. RECOMMENDED MANAGEMENT AND DEVELOPMENT PROGRAM

The management and development alternatives selected as the most suitable for Kohler-Andrae State Parks allow for a modest increase in use and development. Development of a park entrance visitor station and the replacement of facilities will be necessary to alleviate some of the properties' management problems.

The northern three-quarters of the state ownership known as John Michael Kohler State Park will provide recreational activities restricted primarily to nature study, hiking, cross-country skiing, fishing, and horseback riding.

The southern one-quarter of the state ownership known as Terry Andrae State Park will be managed as an intensive recreation area with camping, picnicking, swimming, and other day-use activities accommodating the majority of the park visitors.

In order to protect the natural resources of the park, the total number of visitors per year should not exceed 350,000 visitors. This figure may be increased if ways were found to encourage additional day use and camping outside of summer weekends and holidays. A more active resource management program involving plants, fish, and wildlife will be undertaken. This will be done to encourage species diversity for the educational and recreational use of the public.

#### 1. Management

##### a. Vegetative

The intensive recreation area of Terry Andrae State Park will be managed to encourage regeneration of mature even-aged stands prior to deterioration, and to maintain healthy, vigorous "old growth appearance" tree stands for present and future generations.

The vegetation of the John Michael Kohler section will be managed to encourage natural succession and native plant diversity. The natural area in state ownership will be maintained. Brushing in the marsh areas along the Black River is recommended to improve the vigor and diversity of the native marsh vegetation. Exotic plants such as purple loosestrife will be discouraged as much as possible

through Department approved vegetative management practices that will improve the vigor and density of the native vegetation.

Existing red and white pine plantations will be allowed to mature under active management, but no additional new plantations will be established. The plantation located in the northwest section of the parks will be thinned by removing every other row. This will produce about 18 cords per acre.

The natural hydrology of the lake (i.e., storms on the lake) may set back plant succession to a younger stage. This will probably occur over a long period of time, at intervals that may not be included in a specific master planning period. The dune vegetation is one of the primary natural and scenic features of the park.

The south end of the family campground and other areas of the park that have mature to over-mature stands of white pine will be underplanted with white pine seedlings because of the lack of natural regeneration.

#### b. Wildlife

Wildlife related recreation in the parks should be based on providing observational and educational opportunities.

The construction of three waterfowl nesting ponds and an interpretive boardwalk in the marsh area of the Black River is proposed. The dug ponds will be approximately 200' x 300' in size with a 30' x 40' nesting island. They will provide nesting and brooding areas for mallard, blue-wing teal, and other duck species. The 1/4-mile boardwalk will start at the parking area near the campground and loop past two of the ponds and the Black River. Interpretive signs will be installed at various locations along the boardwalk.

Vegetative management will be the principal wildlife management tool used. Maintenance of the existing shrub community around the marsh is important to maintaining wildlife diversity. Some selective cutting or prescribed burning may be required to rejuvenate the shrub community.

The grass meadow east of County Highway V in the northern half of the property will be maintained by prescribed burning. It is anticipated that the vegetational composition will in time revert to native grasses and forbs. These areas are important to wildlife by providing edge, diversity and nesting sites.

Since a complete biological inventory of the entire park does not exist, it is recommended that one be conducted as funds permit or through volunteer efforts of a college or university.

c. Fish

Kohler-Andrae State Parks have some significant fishery resources. The off-shore areas of Lake Michigan at Kohler-Andrae State Parks are an important sport fishing area for coho salmon, chinook salmon, brown, rainbow, and lake trout. Shore fishing for the same species is an important activity during June, July, and early August of most years. Continued stocking of Lake Michigan with the above species is essential to continuation of this fishery. This fishery management practice is outside the scope of the Kohler-Andrae Master Plan.

The other significant fishery resource is the Black River, which parallels the lakeshore. It drains in a northerly direction out of the park, entering the lake about 1 1/4 miles north of the park boundary. Migratory runs of salmon, trout, and northern pike occur in the river up into the parks. A small amount of recreational fishing occurs inside the park boundary, mostly for migratory trout and salmon.

In-stream habitat improvement, funded by the Bureau of Fish Management, is recommended for the northern-most section of the Black River to improve its holding capacity for fish and create better fishing opportunities for anglers. It will also serve as an educational tool to demonstrate the use of stream improvement techniques used throughout the state.

Selective removal of woody vegetation along the river banks will be needed to encourage grass cover for better bank stabilization. This will also improve fish habitat.

Two private parcels within the proposed parks boundary contain four ponds that, if acquired, could be managed as catch and release children's fishing ponds. They may also be included in the urban fish management program whereby the state supplies the fish and limits fishing to children.

d. Facility

Kohler-Andrae State Parks will continue to provide day use and camping activities. The 105-unit family campground will be retained in its present location and upgraded to better serve the camper and extend seasonal use. It is also recommended that the campground be expanded by about 30 sites.

Picnicking and swimming will remain the principal day-use recreational activities serving the majority of the park users. The day-use facilities should be expanded and upgraded with additional parking, shelter building, and play equipment. The

northern portion of the parks should emphasize nature study and extensive trail-related recreation such as hiking, cross-country skiing, and horseback riding. The snowmobile connector trail will continue to be provided as long as the local snowmobile organizations have an agreement to use private lands for their trail system.

In October, 1988, the Town of Wilson agreed to vacate and release the township's easements on the two township roads within the park boundary-Beach Park Lane and Old Park Road. In the administrative settlement reached with the Town of Wilson, the Department agreed to leave the park entrance on Old Park Road for a period of 10 years. A gradual closing of the south entrance is for the benefit of several local businesses on Old Park Road that cater to park visitors.

The master plan's recommendation to move the main entrance to the north end of the park on Beach Park Lane remains the ultimate goal of the plan. Roadwork, bridge replacement and park entrance visitor station construction will proceed as funds allow in anticipation of this entrance change.

It was also agreed that Beach Park Lane will be closed to motorized vehicles except service and emergency vehicles and for access to seasonal and permanent residences. The road will be open for access by pedestrians, cross-country skiers, bicyclists and horseback riders. The section of roadway now closed to motorized vehicles from the nature center to the parking area at the end of Beach Park Lane will then be opened for vehicle use. This will connect the north end of the parks with the south for the first time.

A Recreational Land Use Study prepared for the Town of Wilson in January, 1986, recommends that an extensive hiking and nature trail system be developed in the township. The trail system, closely associated with the woodlands and marsh areas along the Black River, would connect with hiking trails in Kohler-Andrae State Parks. It will provide a unique recreational facility for the public.

e. Education and Interpretation

Increased emphasis on educational programs and displays will illustrate varied resources of Kohler-Andrae State Parks.

The nature center will house displays and exhibits. Major themes to be emphasized are Lake Michigan, its natural and cultural history, dune and marsh ecology, archaeology and wildlife of the parks.

To develop a more active interpretive program, it is recommended that a 5-month limited-term employee (LTE) naturalist position be added to the park staff. Interpretation can then be both active and passive.

f. Kohler Park Dunes State Natural Area

It is recommended that the boundary of the Kohler Park Dunes State Natural Area be expanded to include an additional area of remnant dunes containing rare plant species and communities. The expanded natural area will total about 285 acres in size (see Figure 6).

2. Development (Figure 4)

Over the next 10 years, the following new development is proposed for Kohler-Andrae State Parks.

A new entrance on Beach Park Lane will be developed with an appropriate park entrance visitor station to serve the entire park. This facility will enable the park staff to more effectively collect vehicle admission sticker fees, enforce the admission sticker regulation, register campers, and dispense park information to visitors.

Through an administrative settlement with the Town of Wilson the Department assumed ownership of Beach Park Lane (.4 mile) and Old Park Road (.3 mile). Beach Park Lane will require resurfacing and a highway bridge over the Black River will be replaced. A bridge on Old Park Road is also in need of replacement.

Electrical outlets including the underground wiring at 49 sites in the existing campground will be replaced.

A project for underplanting the white pine with white pine seedlings in the campground will be initiated.

The existing campground will be expanded by about 30 sites. The project will include the construction of a shower building, electrical outlets, and a chain link fence on the south boundary of the park.

The outdoor group camping area located in the dunes area northeast of the park headquarters will be relocated upon the purchase of a private parcel west of the headquarters off Old Park Road. An inspection by Department engineers will determine if existing toilet facilities and well from the private campground operation are adequate. If not, they will be replaced.

Several development projects are recommended for the south picnic area. They include new parking areas for 200 cars, picnic shelter, and wooden-type children's play equipment.

The trailer dumping station will be redesigned so that users are not routed through the campground.

Improvements to the nature center will include air conditioning, speaker system, sound proofing, new exhibit construction, and lighting.

To increase hiking and other trail-type opportunities in the parks, the following projects are recommended.

One-mile of cordwalk through the state natural area addition is proposed which would connect the south park area and campground with the Creeping Juniper nature trail and nature center.

If the private Kohler lands are acquired, and additional 3 miles of combination horse/hiking/cross country ski trail will be developed. Two bridges over the Black River will be needed to connect with existing trails. A 20-car/trailer parking lot off C.T.H. V will serve as the trail head.

Rerouting the Indian Pipe nature trail when the family campground is expanded and abandoning a 1,800-foot loop of attached hiking trail are other proposed trail projects.

The existing 36-car nature center parking lot will be enlarged to provide 30 additional parking spaces for the public attending organized programs and activities at the nature center as well as trail and beach users.

A bituminous-paved access road to the service area north of Beach Park Lane including parking will be constructed.

A 50-car paved parking lot at the end of Beach Park Lane will be constructed in addition to a combination vault-type toilet. A well with a hand pump is also needed.

Three waterfowl nesting ponds and an interpretive 1/4-mile boardwalk in the marsh area of the Black River are proposed. Interpretive signs will be installed at various locations along the boardwalk.

The combination shower building/shelter in the campground will be modified by removing the outmoded shower portion of the structure. With minor structural changes, the shelter will continue to serve a useful purpose. The project would also entail relocation of the electric service panel.

When the new park entrance is developed off Beach Park Lane the asphalt road and parking area associated with the old contact station on Old Park Road will be removed, and the site topsoiled, seeded, and landscaped. A large turn around will be constructed at the end of Old Park Road.

The visually distracting electrical lines presently serving the contact station, park office and north picnic area will be replaced by underground service. Power lines along Beach Park Lane and those serving the park service building and residence will also be placed underground. The north-south park road will be modified to develop a satisfactory connection with the campground road.

A bicycle path or bike lane will be constructed from Beach Park Lane along the north/south park road, however, no public funding will be used. The project could be accomplished by a local service organization.

### 3. Estimated Development Costs and Phasing

Total estimated development cost based on 1988 figures is \$1,266,700. All proposed development will be dependent upon the availability of funds and upon statewide priorities. Additional and/or up-to-date justification will also be required before development projects are funded.

All areas of development will be examined for the presence or absence of endangered and threatened wild animals and wild plants and appropriate protective measures taken for significant sites. If any list species are found during development, construction would be suspended until the District Endangered and Nongame Species Coordinator is consulted.

#### Phase I

Park entrance visitor station and associated roadway and parking.	\$150,000
Bicycle path or bike lane	0
Bridge replacement on Beach Park Lane	150,000
Resurface Beach Park Lane (.4 mile)	30,000
Campground renovation (pads)	12,000
Campground electrical outlets for 49 units	39,200
Vegetative management (tree planting, loosestrife control, etc.)	<u>10,000</u>
Total	\$391,200

Phase II

South picnic area improvement (parking, shelter, play equipment, waterline, upgrade roadway)	266,000
Campground expansion (30 sites) with electrical outlets, shower building, and chain link fence	130,000
Service area road and parking	50,000
Group campground relocation with possible toilets and well	<u>25,000</u>
Total	\$471,000

Phase III

Bridge replacement on Old Park Road	\$150,000
Parking lot-end of Beach Park Lane with toilets and well with hand pump	52,500
Trailer dumping station road modification	25,000
Nature center improvements and parking lot expansion	45,000
Boardwalk (1/4 mile)	10,000
Combination horse/cross-country ski trail (3 miles) and 2 trail bridges	25,000
Fencing, boundary (1 mile)	6,000
South (Andrae) contact area road removal and landscaping	12,000
Underground electrical	64,000
Shower building/shelter modification	<u>15,000</u>
Total	\$404,500

4. Land Ownership (Figures 2 and 3)

As of 6/30/88 554.41 acres were state-owned at John Michael Kohler with an acreage goal of 805.71 acres. State ownership at Terry Andrae is 205.9 acres with an acreage goal currently established at 209.0 acres.

It is recommended that the present boundaries be expanded to include an additional 90.27 acres of land at J.M. Kohler and 20 acres at T. Andrae. The additional lands will provide buffer for the family campground, a potential site for relocating the outdoor group camping area, small ponds for children's fishing, and protection of the Black River watershed.

With the proposed boundary expansion at J.M. Kohler plus a corrected acreage figure for private lands within the current park boundary (242.38 acres), the new adjusted acreage goal is 887.06 acres. At T. Andrae the adjusted acreage goal is 225.9 acres.

5. Operations Cost and Revenue Potential

The 1987-88 operations budget for Kohler-Andrae is \$136,747. With 1987 revenue amounting to \$165,904, the percent of revenue to operations cost is about 121 percent.

6. Roads, Entrances and Private Inholdings

There are 242 acres of private inholdings within the existing park boundary that impede development of a meaningful trail system and complicate administration of the park.

7. Public Involvement in the Master Planning Process

During the planning process which began in 1982, a number of groups and individuals were consulted regarding tentative proposals to be included in the Kohler/Andrae Master Plan. Approximately 12 people attended a master planning workshop held October 9, 1982 in Sheboygan.

The master plan proposals were also presented at a Town of Wilson town board meeting on June 16, 1988.

On June 22, 1988, an open forum public meeting was held in Sheboygan to gather comments on the draft master plan. Twenty-five citizens attended. Most of the comments and suggestions were on the town road closure and park entrance proposals, snowmobile trails, bicycling opportunities, and the proposed boundary expansion.

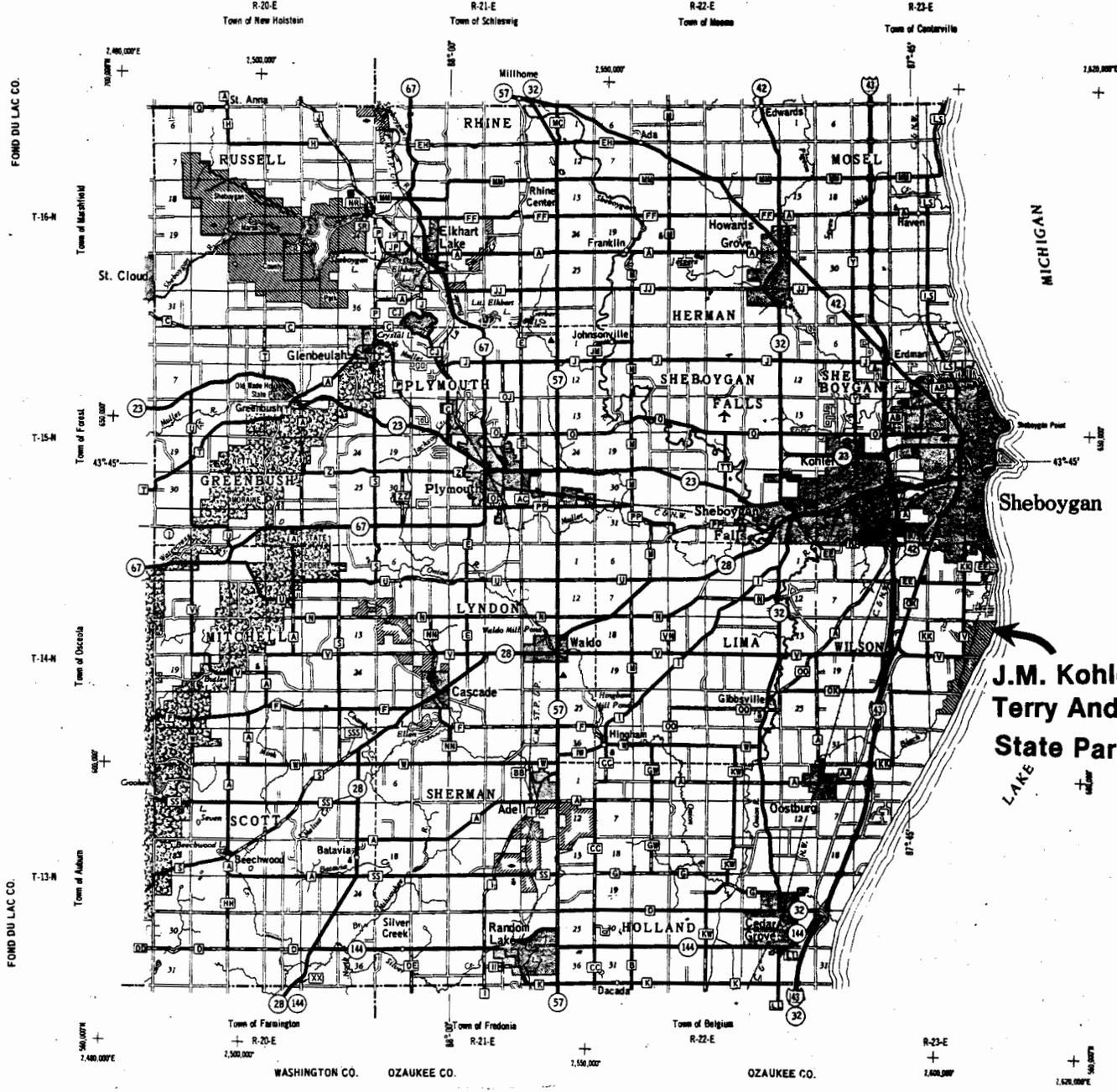
8. Providing for use by mobility disabled and other handicapped persons.

The parks program will initiate an information/education program to inform the public of accessible facilities. The program will also work with and accelerate communications with advocacy groups to determine needs for other and less traditional recreation activities.

All new buildings will be accessible as well as new selected areas and other facilities.

A new combination flush toilet/shower building located in the camp area is of the new design and has special facilities for the physically disabled.

The existing toilet/showers buildings and the nature center are also accessible. The existing bathhouse is accessible, but needs a paved walkway which is scheduled for construction. New electric outlets in the accessible sites area of the campground will have paved paths to them. A new boardwalk in the wetland area will have a section of it made accessible. Also, an accessible area including parking for the south day use area is scheduled to be built. There is now an accessible water fountain in that area.



**J.M. Kohler  
Terry Andrae  
State Parks**

**LEGEND**

- Perched Corner **U.S. STATE**
- Black Corner **COUNTY**
- Shaded Area **State Park**
- Green **Forest**
- Blue **Water**
- Black **City**
- Black **Village**
- Black **Unincorporated**
- Black **Public**
- Black **Highway**
- Black **U.S. Highway**
- Black **State Highway**
- Black **County Hwy. Letter**
- Black **Road**
- Black **Dam**
- Black **State Boundary**
- Black **County Boundary**
- Coal Town Boundary
- Corporate Limits
- Nat. & State Forests
- Airport
- Fish Hatchery
- Game Farm
- County Seat
- Unincorp. Village
- Suburb
- Public Heat or Fish Grid
- Hospital
- Ranger Station
- Public Camp & Picnic Grid
- State Park... with Campsites
- State Park... without Campsites
- County Park... with Facilities
- County Park... without Facilities
- Wayside... with Facilities
- Wayside... without Facilities
- Ris. School For Boys
- Wisconsin State University



**TOWNSHIP NUMBERS**

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

MILES OF HIGHWAY as of Jan. 1, 1983

STATE	179
COUNTY	439
LOCAL ROAD	831
OTHER ROAD	14
<b>TOTAL FOR COUNTY</b>	<b>1463</b>

Land Area: 568 sq. mi.  
Population: 100,335  
Co. Seat: Sheboygan



**SHEBOYGAN CO.**  
DEPARTMENT OF TRANSPORTATION

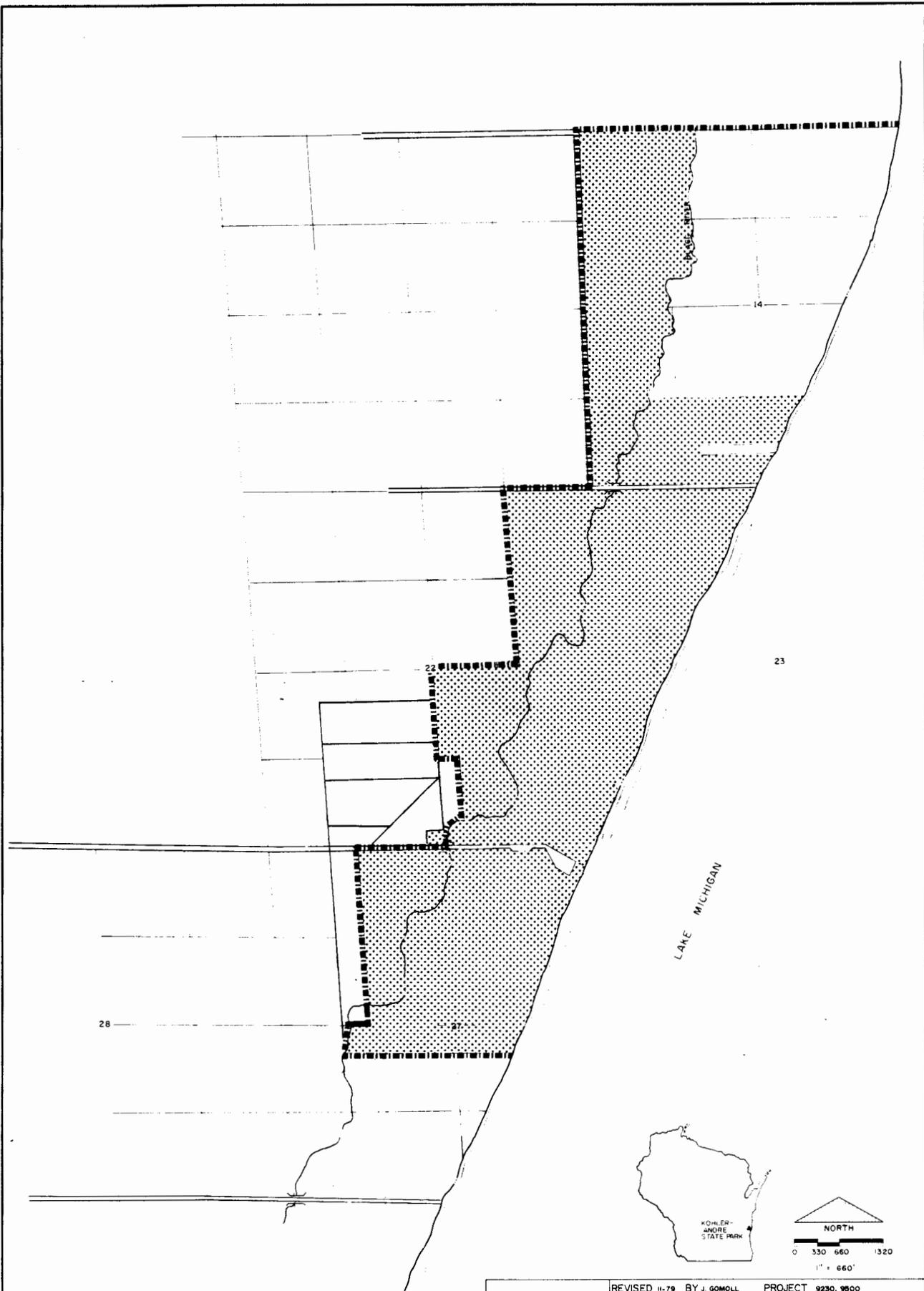
STATE OFFICE BUILDING  
Madison, Wisconsin  
SCALE 1" = 2 MILES

Corrected for  
JAN. 1984  
Compiled from U.S.G.S. Quadrangles  
based on Aerial Photographs

\*Surface types on new roads not shown.

+ Grid based on Wisconsin coordinate system, south zone.

**Locator Map Figure 1**



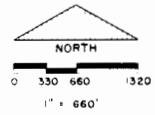
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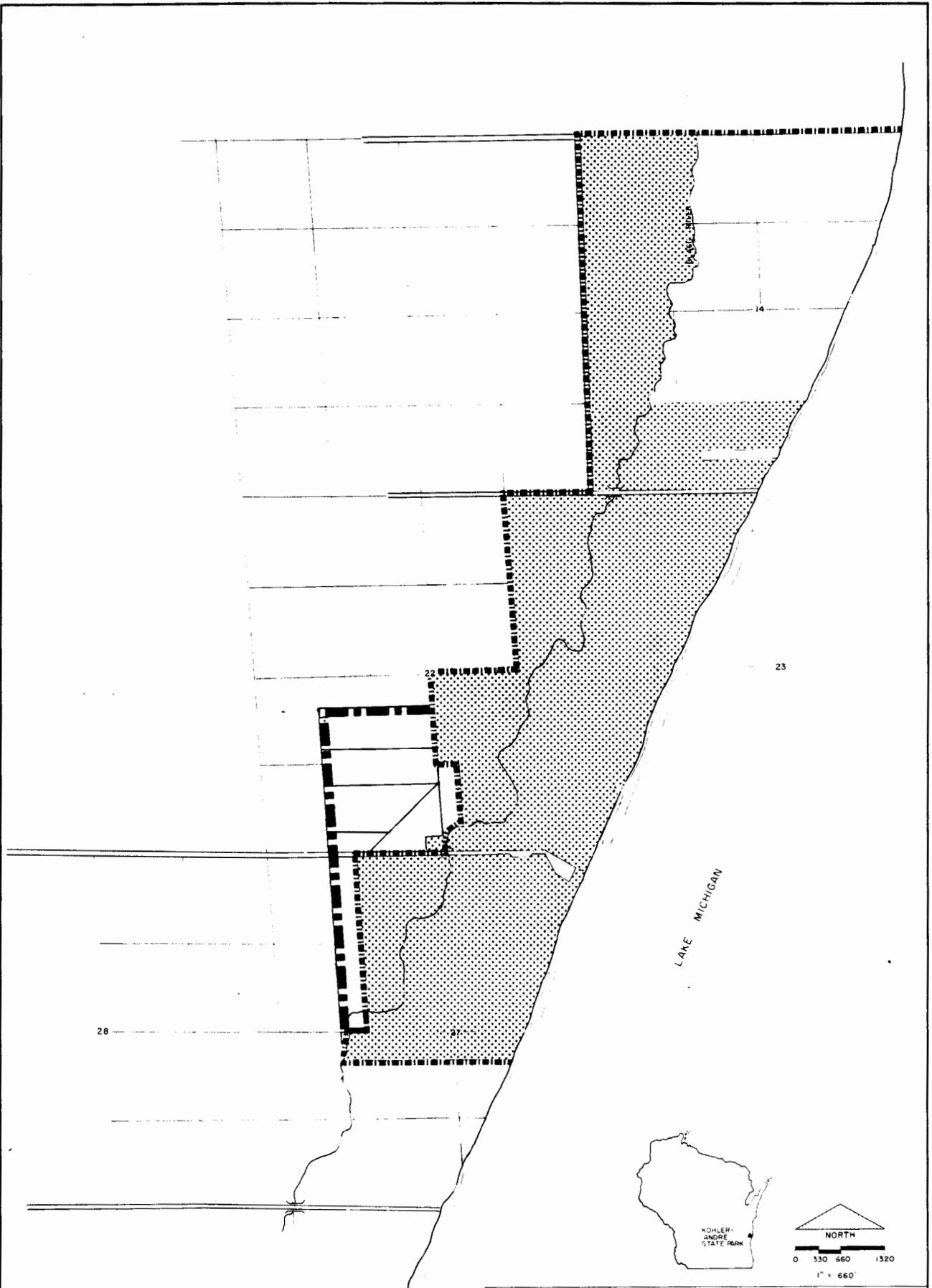
 PRESENT OWNERSHIP  
 APPROVED BOUNDARY

REVISED 11-79 BY J. GOMOLL PROJECT 9230, 9500

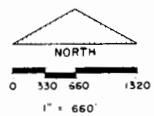
**WISCONSIN DEPARTMENT OF NATURAL RESOURCES**  
**BUREAU OF PARKS AND RECREATION**  
**PARK PLANNING AND DEVELOPMENT**

**KOHLER-ANDRAE**  
**LAND OWNERSHIP MAP**  
**Existing Project Boundary Figure 2**





- LEGEND**
-  PRESENT OWNERSHIP
  -  APPROVED BOUNDARY
  -  Proposed Boundary



REVISED 11-79 BY J. GOMOLL PROJECT 9230, 9500

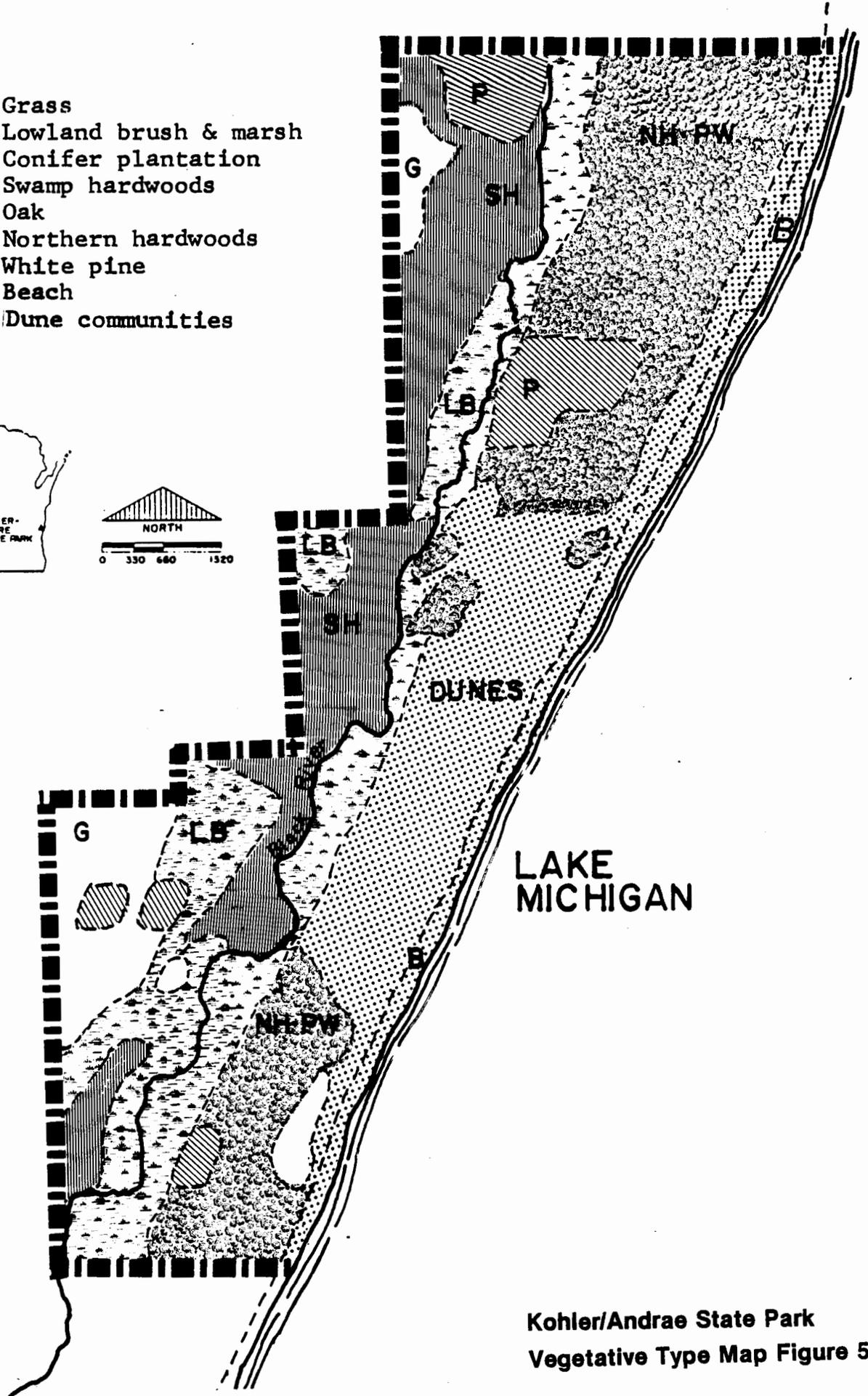
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 BUREAU OF PARKS AND RECREATION  
 PARK PLANNING AND DEVELOPMENT

**KOHLER-ANDRAE  
 LAND OWNERSHIP MAP**

**Proposed Project Boundary Figure 3**



- G Grass
- LB Lowland brush & marsh
- P Conifer plantation
- SH Swamp hardwoods
- O Oak
- NH Northern hardwoods
- PW White pine
- B Beach
- Dune communities

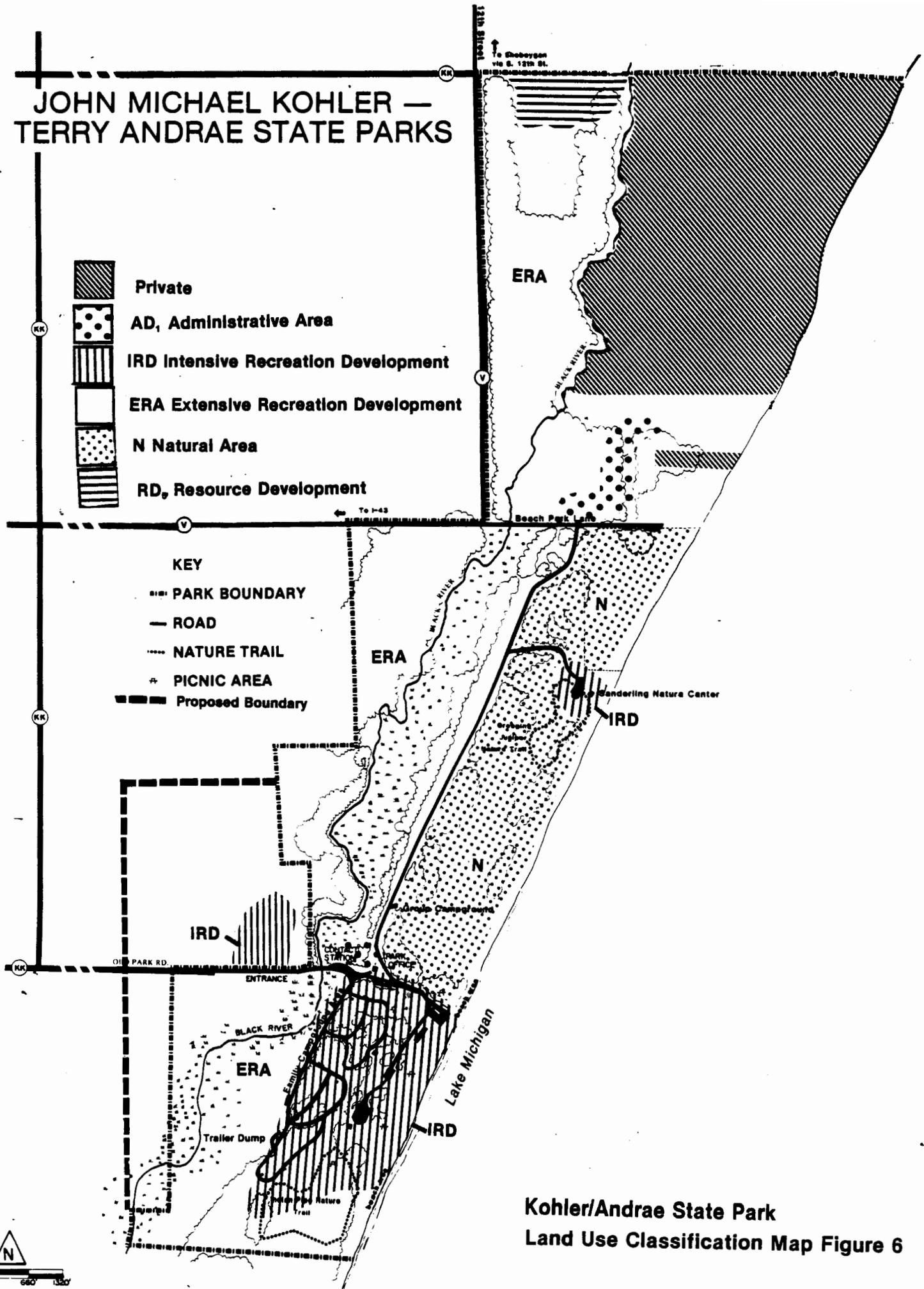


Kohler/Andrae State Park  
Vegetative Type Map Figure 5

# JOHN MICHAEL KOHLER — TERRY ANDRAE STATE PARKS

-  Private
-  AD, Administrative Area
-  IRD Intensive Recreation Development
-  ERA Extensive Recreation Development
-  N Natural Area
-  RD, Resource Development

- KEY**
-  PARK BOUNDARY
  -  ROAD
  -  NATURE TRAIL
  -  PICNIC AREA
  -  Proposed Boundary



**Kohler/Andrae State Park  
Land Use Classification Map Figure 6**



## SECTION II - SUPPORT DATA

### A. BACKGROUND INFORMATION

#### 1. Location (Figure 1)

Kohler-Andrae State Parks are located in eastern Sheboygan County on the Lake Michigan shore, about 2 miles south of Sheboygan and about 43 miles north of Milwaukee.

#### 2. Regional Context

Major Wisconsin communities nearest Kohler-Andrae State Parks are Sheboygan (pop. 48,484), Manitowoc (pop. 33,430), Two Rivers (pop. 13,732), Green Bay (pop. 87,809), Appleton (pop. 56,377), Oshkosh (pop. 53,104), Fond du Lac (pop. 35,515), West Bend (pop. 16,535) and Milwaukee (pop. 717,372). All the above cities are within about one hour driving time to the parks.

Interstate Highway 43 is the principal means of vehicle access to the parks. It runs north-south and passes about 2 miles west of the parks. County Highway V and various town roads currently connect the parks to the interstate highway.

Other state parks and forests located in the region are: Harrington Beach State Park, about 15 miles to the south; Northern Unit Kettle Moraine State Forest, about 30 miles to the west; High Cliff State Park, about 40 miles to the northwest; and Point Beach State Forest, about 40 miles to the north.

In addition, about 1,764 private, county, and municipal campsites are located within Sheboygan County. The majority (1,581) are privately owned and operated. The state's total for the county is less than 6%.

#### 3. Area History

Ancient Indian cultures inhabited Sheboygan County and the Lake Michigan shoreline from the retreat of the Valdres Ice Sheet, about 9,500 years ago, to historic times (1634 A.D.). These cultures may have included the Aqua-Plano, Old Copper, and Early-Late Woodland cultures. Effigy mounds depicting various animals and geometric shapes have been found in the area. These mounds have been radio-carbon dated and range in age from 500 to 1000 A.D.

The coastal region from Green Bay to Milwaukee was inhabited at various times by Potawatomi, Ottawa, Chippewa, Winnebago, and Menominee Indians. A continuous string of villages occupied the dunes areas from the mouth of the Black River, north of Kohler-Andrae State Parks, south through the parks to southern Sheboygan County.

Many Indian artifacts have been recovered from the area between Sheboygan and the southern Sheboygan County line. They include pottery vessels, bone, bone fish hooks, human aboriginal remains, clay pipes, stone projectile points, various bone and horn implements, various copper ornaments, and tools. Some of the artifacts are in the collection of the Milwaukee Public Museum, Kohler Art Museum, private collectors, and at the park nature center.

The first Europeans in the area of the parks are not known, but were probably French-speaking. Jean Nicolet may have traveled south from Green Bay along the west coastline of Lake Michigan in 1634. Other explorers or missionaries who might have passed through are Nicholas Perrot, Jacques Marquette, Father Claude Allouez, and Robert Cavalier de la'Salle in the middle and late 1600's and the early 1700's.

In 1795, Jacques Vieau of the Northwest Fur Company came from Mackinac to set up a trading post near the mouth of the Sheboygan River. He was followed by William Farnsworth who established a post at the same location in 1820.

The first European settlement of any consequence occurred after the Indians relinquished their land to the U.S. government following the defeat of Blackhawk in 1832. The first land survey of Sheboygan County area occurred between 1833 and 1836. Land surveyors generally preceded settlement, and "Yankees" from the eastern United States of English extraction settled in the Sheboygan County area from 1836 to about 1850. This immigration was followed by German, Dutch, and Irish immigrants in the 1840's and 1850's. These later immigrants were mostly farmers. Some lumbering did occur, but was mostly incidental to agriculture and was the work of individual farmers rather than large timber companies.

Of particular interest are the fishermen who bought land and ran fisheries in the area of the park. Joseph Fairchild settled on Section 14, Town of Wilson. The 1875 plat book notes fish houses on Fairchild's property approximately where the present-day nature center is located. David Wilson, for whom the township is named, settled in Section 11 in 1840 and ran a fishery. August Moenning also owned land now in the park area and was engaged in fishing. A T-shaped pier located at the end of what is now called Beach Park Lane, is noted in the 1875 plat book. This pier was known as Wilson's Pier. In 1852, it was proposed that a railroad be built from Cascade east to Wilson's Pier on the north line of Section 27. It was never constructed.

In 1885, a plat book notes School #1 to the southwest of the present day nature center. Its exact location on the park property has not been found. Remnants of barb wire fences attest to the keeping of livestock by landowners. Many exotic herbs and trees originating from these original homes have altered the structure of the plant communities. The planting of Scotch pine/red pine plantations in the

1930's has also altered the composition of plant communities as well as accelerated dune stabilization in recent times.

The subject of shipwrecks deserves special consideration. Over 50 shipwrecks have been noted for waters off Sheboygan. Recently in the parks, a section of keel from one of these wrecks was recovered. It has been researched to gather data for an extensive future interpretive display. Among the shipwrecks that have ended up at or near the parks shoreline are the schooners Challenger and Island City, and the propeller-driven Delaware.

#### 4. History of the Property

Kohler-Andrae State Parks owe their existence to the early acquisition of large blocks of land by Frank T. Andrae and the Kohler family and their interest in early conservation efforts. Terry Andrae State Park was established in 1928 with the donation of 122 acres of land formerly owned by Frank T. Andrae. The land was donated by Mrs. Andrae to the people of the state as a memorial to her husband. In 1965, the Kohler Company donated 221 acres of land north of the Andrae donation, which became J. M. Kohler State Park.

The combination of gifts and subsequent acquisition of adjacent land parcels by the state led to the present formation of the two parks, which include some 760 acres and approximately 1 1/2 mile of beach frontage. Early correspondence regarding the parks in the State Historical Society files indicates that the area was a popular camping and vacation area as early as the 1930's.

#### 5. Existing Management and Development (Figure 4)

John Michael Kohler and Terry Andrae State Parks are classified as scenic parks and are open throughout the year for public use. Existing development includes one major family campground of 105 units. Of those 105 campsites, 49 have electrical outlets and are quite popular with campers. The campground is equipped with 3 combination toilet/shower buildings, 2 sets of pit toilets, and drinking water. A small 50-person group campground is located in the dunes area northeast of the park headquarters. It has one small set of pit toilets.

The 33 acres of picnic area are equipped with about 225 tables, 40 grills, and parking for about 292 cars. The picnic area is located between the campground and the lake front, and is heavily used.

Swimming and sunbathing are two of the more popular activities at Kohler-Andrae State Parks, with about 2 miles of beach devoted to this activity. The park also has two nature trails totaling 1 3/8 miles and about 1 1/2 mile of cross-country ski trail. Hiking is also a popular activity, but is mostly confined to the beach and sand dune area.

Approximately 4 miles of roads inside the parks boundary service the various facilities.

Support facilities consist of a 1,008 square foot cottage building that has been converted to a headquarters office, a 228 square foot concession stand located in the picnic area, and a 3,900 square foot nature center located in the central portion of the parks. The shop/service building of 2,700 square feet is located in the northern portion of the properties.

Primary management emphasis is on preserving the outstanding scenic qualities and natural features of the parks. The areas of most intensive concern are the dunes areas and the beach front. These are the features that over the years have continually attracted visitors to Kohler-Andrae State Parks. Of the 760 acres of state ownership at Kohler-Andrae State Parks, about 160 acres are used for intensive recreation and servicing the recreational facilities. Approximately 600 acres of parks' land are undeveloped of which 25 acres are designated as the Kohler Park Dunes State Natural Area.

Camping is also a very popular activity at Kohler-Andrae State Parks. Of the 37 state parks offering camping, the parks ranked about 6th in camper receipts for 1986 and 1st in summer occupancy at a rate of 89%. The park has an active nature interpretation program during the summer months. The activities are concentrated around the nature center and existing system.

Although the parks are open year-round, park use is concentrated primarily in the summer months with picnicking, sunning, swimming, camping, hiking, nature study, and fishing being the popular activities. Fall camping is on the increase because of wider use of recreational camping vehicles, fall salmon fishing in the area, and holidays.

Management of the parks is the responsibility of the Park Superintendent 4 who is assisted by an Assistant Superintendent 2 and a Natural Resources Assistant. Approximately 10-13 summer employees are also hired for public contact, law enforcement, nature interpretation, and various maintenance functions.

## B. RESOURCE CAPABILITIES AND INVENTORY

### 1. Soils

The soils survey of Sheboygan County shows the soils of Kohler-Andrae State Parks to be of origin related to the hydrology of Lake Michigan. The primary soil types in the parks are classed as dunes and beach and are nearly pure sand with very low organic content. These soils are extremely unstable when the existing ground vegetation is removed.

The soils inland from the dunes are made up of the Oakville series and consist of loamy fine sands of slopes from 0-6% and 6-12%. These are for the most part well-drained and considered useful for recreational development. The soils along the Black River bottom are made up of the Adrian and Houghton muck series. They are for the most part saturated throughout the year and are considered unsuitable for most development purposes. They do, however, support a growth of native shrubs and hardwood trees.

Along the west boundary of the park the land rises up into an agricultural area. Here, the soils are complex in nature with many small pockets of various soil types represented. The soil types in the upland area consist of Granby loamy fine sands, Navan loam, Oakville loamy fine sand with a slope 0-6%, Granby loamy fine sand, and Matherton silt loam, 0-3% slope.

## 2. Geology

Kohler-Andrae's bedrock geology dates back to the Devonian era, about 350 million years ago. This Devonian formation is made up of dolomite and shale covered by a thick mantle of ground moraine. The ground moraine material was deposited during the last great ice age some ten thousand years ago.

The parks surface geology owes its existence almost entirely to wind and wave action. The bulk of the parks is a stabilized dunes area. On the western edge of the parks are remnants of ancient "Glacial Lake Nippissing." The beachline of this ancient glacial lake is visible in the northwest corner of the property some 14 feet above the current lake level.

## 3. Water Resources

Kohler-Andrae State Parks have two important water features: Lake Michigan and the Black River paralleling the lakeshore near the parks' western boundary.

Lake Michigan and its associated beach frontage is by far the most dominant and important natural feature of the parks. It is the focus of much of the recreation that takes place on the property and one of the prime reasons that people visit the parks.

Because of its size, the lake has the ability to modify the climate of the parks to a large degree. During the summer months, the lake has an air conditioning effect on the local climate, creating a very comfortable environment compared to the interior of the state where temperatures may reach 90°F. It also has a modifying effect on the winter weather, which is generally less severe along the lakeshore. The fall season is modified as well, with vegetation remaining green a week or two longer than the interior of the state.

Lake Michigan waters are of sufficient quality to provide recreational swimming, fishing, and boating. Water temperatures for swimming, even during the summer months, tend to remain cool compared to inland lake temperatures.

Because of the intensive management of the fisheries of Lake Michigan, brown trout, rainbow trout, lake trout, some brook trout, coho salmon, and chinook salmon are readily taken offshore by anglers. Some surf fishing opportunity exists in the parks primarily during the spring of the year. It is interesting to note that the historical Indian settlements were located along this portion of the lake, because of the excellent fishing opportunities.

The Black River parallels the Lake Michigan shoreline and runs in a northerly direction, entering the lake about 1 1/2 miles north of the parks. The river has a low gradient and in most places appears to be marsh rather than a river. Despite this character, there are runs of trout, salmon, and northern pike up the Black River into the parks.

#### 4. Vegetation (Figure 5)

Kohler-Andrae State Parks have a number of vegetation types that add scientific as well as aesthetic value to the property. The most notable example of these interesting plant types is located in the 35-acre natural area northwest of the nature center (Appendix A). It is an area of both active and stabilized dunes with accompanying dune vegetation. Included in this zone is 1/4 mile of beach plant communities and two small areas of white pine forest. The area is considered of value for educational and research purposes and provides habitat for the following rare species:

clustered broomrape (Orobanche fasciculata) state-threatened  
dune goldenrod (Solidago spathulata) state-threatened  
dune thistle (Cirsium pitcheri) state-threatened  
sand reed (Calamovilfa longifolia) special concern  
slender bog arrow-grass (Triglochin palustre) special concern  
Variegated scouring rush (Equisetum variegatum) special concern

The balance of the acreage on the north end of the property is a mixed stand of northern red oak, eastern white pine, red maple, yellow birch, and beech. It can be described as being in a subclimax state with shade intolerant species such as red maple, white pine, and white birch predominating. Shade tolerant species such as beech and ash are beginning to gain in dominance. The oak and pine have reached maturity and are slowly succumbing to diseases such as fungus heart rot.

The forest type designated as swamp hardwoods is composed of about 92 acres. Scattered throughout the type are green ash that have reached economic maturity. The area is characterized by a fluctuating water table resulting in shallow rooted trees. Blow-down is quite common, however, it is recognized this can be desirable for wildlife habitat.

For a list of tree species of Kohler-Andrae State Parks, see Appendix B.

## 5. Wildlife

The combined effects of Lake Michigan and the Black River provide environmental conditions that result in a unique assemblage of plants and wildlife communities in a relatively small area. Appendices C, D, and E list the bird and animal species that occur on this property. The lakeshore of Lake Michigan acts as a migration corridor for birds during the spring and fall migration. An ornithological research station located near Cedar Grove, only 6 miles south of Kohler-Andrae, provides documentation of the variety of migrants passing through Kohler-Andrae State Parks.

Almost any bird species that migrates through Wisconsin can be observed at some time of the year on the properties. Impressive numbers of diving ducks usually build up in the fall in rafts of 2,000-5,000 just off shore of the parks.

Many raptors and passerines can also be observed as they pass through the parks during migration. Species listed as endangered are peregrine, osprey, and bald eagle. Threatened species include Cooper's hawk and Red-shouldered hawk.

Besides the migratory birds, many species are summer and/or winter residents. Species range from ducks and shorebirds to woodland warblers, vireos, and marshland rails and herons. Ring-necked pheasants overwinter in the cattail and shrub marsh on the property.

Special concern (watch) species of song birds are Boreal chickadee, Ruby-crowned Kinglet, Cape May Warbler, Black-throated Blue Warbler, and Connecticut Warbler. Three species under the state status of administrative rule are Yellow-throated Vireo, Black and White Warbler and Field Sparrow.

A variety of mammals also inhabit the area (Appendix C) including a fluctuating muskrat population, raccoons, coyotes, and otters. A number of deer are also present in the parks. They tend to concentrate in the pines on the north end during winter.

A variety of small animals occur in the parks. They include meadow voles in the grassy areas and red squirrels in the conifer forest areas and 13-lined ground squirrels in the mowed areas. Predators such as red and gray fox, mink, and weasels are also present.

#### 6. Historical and Archaeological Features

State Historical Society records show that 21 archaeological sites have been documented within the park project boundary. It is clear that there are many more sites in the park. The entire area from the mouth of the Black River south to the Sheboygan County line was almost a continuous string of encampments or villages prior to European settlement. An ancient trail existed through the dunes region and extended southward to Milwaukee and north toward Sheboygan and Manitowoc.

In the Wisconsin Archaeologist, V.19 No. 3, 1920, it is noted that many artifacts were recovered by Rudolph Kuehnen, Alphonse Gerend, and others from the sand dunes area in and near the parks. These include many pottery vessels, bone awls, bone fish hooks, human aboriginal remains, clay pipes, projectile points, bone and horn implements, copper ornaments, and tools. Some of these artifacts are in the collection of the Milwaukee Public Museum, Kohler Art Museum, private collectors, and the parks nature center.

All future development plans will recognize the existence of known archaeological sites and make every effort to preserve them. Because of the relatively high density of archaeological sites in the park, the State Historical Society requests review of all development plans for potential impacts on archaeological sites.

#### 7. Land Use (Figure 6)

In accordance with the Department's land use classification system, lands within the parks are classified as: Extensive Recreation Area (ERA), Intensive Recreation Development (IRD), Natural Area (S), Resource Development (RD5), and Administrative (AD1).

Extensive recreation area accounts for about 695 acres of the parks and includes most of the scenic lands such as dunes, forest, and marsh outside of the heavily developed portion of the property. These lands are available for certain forms of recreation like hiking, cross-country skiing, nature study, beach combing, and horseback riding.

Approximately 15 acres, classified as RD5, are being used and managed as a pine plantation. The pine plantation was established as a demonstration tool for reforestation and also to reduce wind erosion in a highly unstable soil area.

About 114 acres are devoted to intensive recreational development (IRD). The land is used for family campgrounds, picnic areas, play areas, outdoor group camp area, and swimming beach.

The 285-acre state natural area (N) contains active and stabilized sand dunes and is considered valuable for its educational and research value.

An area consisting of unspoiled beach, a narrow, unstabilized dune area and stabilized dunes covered with northern hardwoods was designated in 1967 as the M. Kohler Park Pines Natural Area. This 95-acre natural area located on private lands in the northeast section of the parks lost its official designation when the Department of Natural Resources' lease on Kohler lands expired.

Two areas of about 4 acres in size are classified as administrative areas (AD1). One area near the entrance road includes the office/visitor contact station, the other, the park manager's residence and shop storage building.

#### C. MANAGEMENT AND DEVELOPMENT PROBLEMS

While the parks rank about 6th in the state park system in terms of users, they are relatively small in land area (760 acres). They have limited uplands and erodible soils that restrict recreational development. A third and equally difficult problem is that the development at Kohler-Andrae has taken place piecemeal over the last 50 years, largely because land was given and acquired by the state over a long period of time. This situation has resulted in somewhat less than ideal facilities, both in the campground and the day use area. Many of these facilities are in need of upgrading or replacement. The following are the principal management problems:

##### Administration

The park has a small contact station lacking running water and public restrooms that serves as a visitor contact station. The administrative offices are in a 35-year old converted cottage which is a constant maintenance problem. It also creates a rather poor aesthetic impression and provides no handicapped access. The separate contact station and administrative office make staffing difficult.

In addition, some increase in staffing would provide a better level of service to the public. The new staff positions would include a Fiscal Clerk 1 (6-month seasonal or permanent/part time), a Ranger 1 (9-month seasonal), and LTE funding for a 5-month naturalist.

### Inadequate picnic area facilities

By far the largest number of users of Kohler-Andrae State Parks are people using the day-use facilities that include picnicking and the swimming beach. Several things should be provided to better accommodate these users: 1) additional parking, 2) one additional shelter building, 3) play equipment, (4) additional drinking fountains, and (5) handicapped accessible picnic areas with parking and drinking fountains. Some additional landscaping is needed to correct minor soil erosion resulting from overuse.

### Under-utilization of nature center

The nature center at Kohler-Andrae State Parks receives good levels of use while open, because of the quality of the facility and its location. However, the naturalist position is funded only three months of the year and this limits potential use of the center. There are many opportunities for interpretive programs within the park. They include: geology, archaeology, fishery, wildlife, maritime history, and plant communities.

In addition, there are some architectural and technical changes to the building that would make the building more usable, such as air conditioning, speaker system, sound proofing, and lighting.

### Purple Loosestrife

Purple loosestrife (Lythrum salicaria), an exotic herb that has invaded wetlands in North America, is present in the wetlands along the Black River. It is considered to be a serious threat to native emergent vegetation. Eradication is difficult, but some control method will be undertaken to preserve the integrity of the flora and fauna in the wetlands of the parks.

### Private Inholdings

Private inholdings within the existing boundary impede development of a meaningful trail system and complicate administration of the park. Currently, the park visitors are using the beach frontage of the two northern parcels as if they were public lands. The use by the public of these private lands, while not condoned by the Department, creates a potential for conflict should the owners post the land to prevent trespass.

## D. RECREATION NEEDS AND JUSTIFICATION

Wisconsin's 1986-91 Statewide Comprehensive Outdoor Recreation Plan (SCORP) Needs Assessment section sets priority ratings on various outdoor recreation activities to serve as an indicator of needs. For the Southeast District, which includes Sheboygan County, recreation activities pertaining to Kohler-Andrae State Parks and ranked as "high priority" are camping,

cross-country skiing, hiking, organized sports, picnicking, and walking/jogging.

#### E. ANALYSIS OF ALTERNATIVES

##### 1. No change--Status Quo.

This alternative would provide that the properties continue operating as they are now. There would be no organized attempt to overcome the listed management problems. There would be little change, if any, in the degree of resource protection. The development would be limited to necessary replacement of facilities as funds became available.

This approach would also mean a decline in the quality of recreational experience in the parks and may result in the overall decline in use by the public. Therefore, this alternative is not desirable.

##### 2. Modest Recreational Development and Resource Protection.

During the 10-year master planning period, the park could accommodate a modest increase in the number of users. Total park visitation could increase by 10% with annual attendance of 350,000. Problems addressed in the master plan would be studied and solved. A much higher degree of resource protection would occur. It would help insure a quality recreational experience. New development and upgrading of existing facilities would be required.

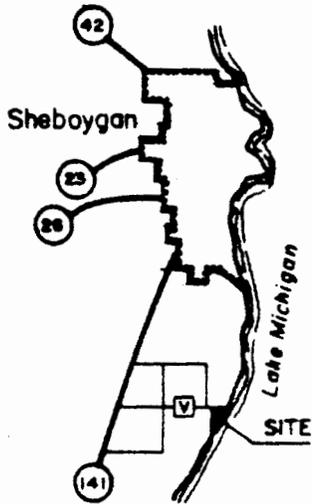
This recommended alternative would require minor expansion of the project boundary to include some land west of the Black River and acquisition of major parcels inside the project boundaries.

##### 3. Intensive Recreational Development

Under this alternative, the intensity of park use and development would be substantially increased. Significant increases of park use could be achieved with major expansion of the campground facilities, including development of shower facilities, flush toilet facilities, and electric utility hookups. It would require the acquisition of additional lands west of the Black River to provide for major expansion of the campground. Additional picnic area with support facilities would also be provided.

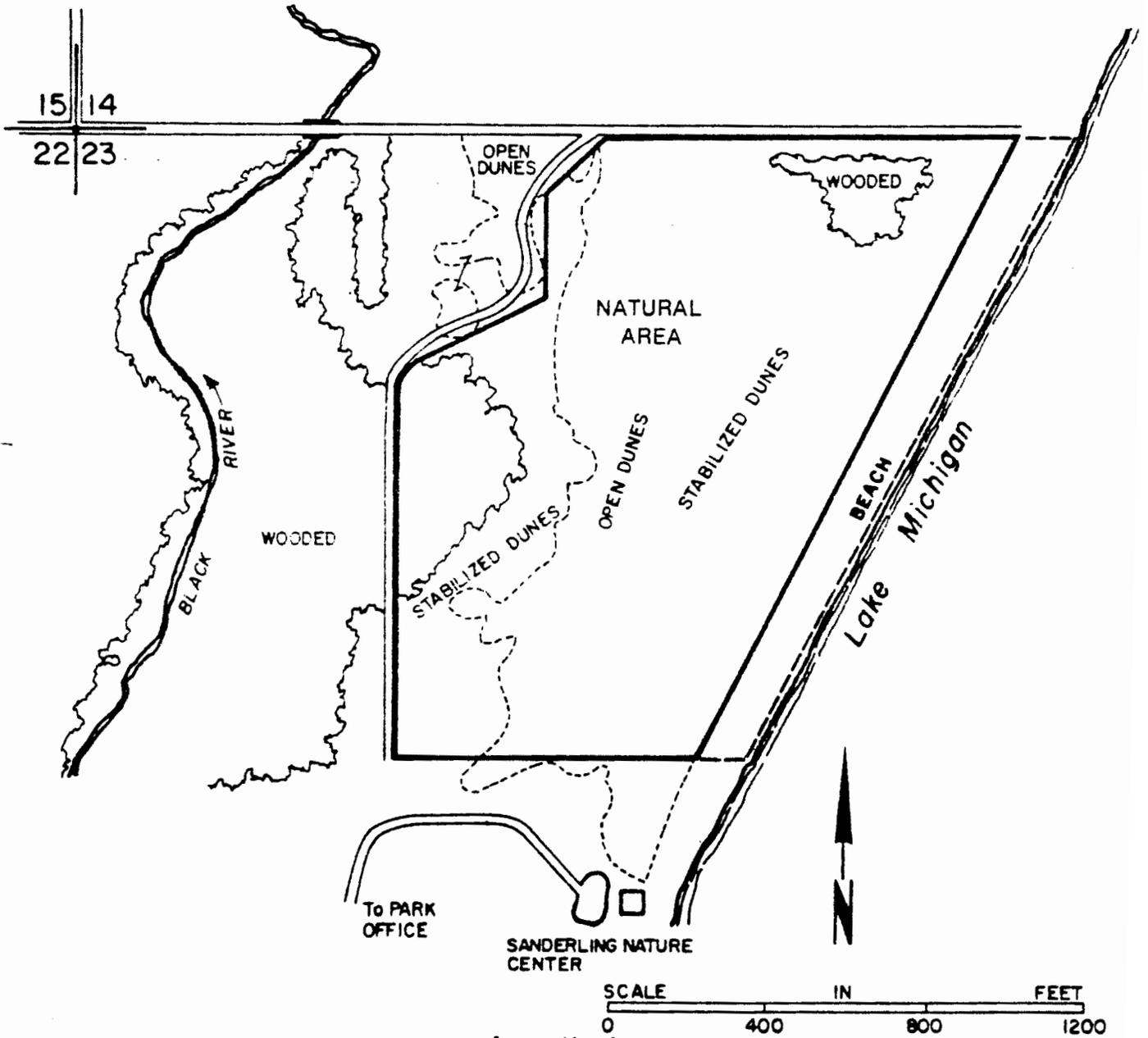
This alternative, which is not feasible at this time, would also mean a diminishing of the level of resource protection provided for the lands that make up Kohler-Andrae State Parks.

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LOCATION MAP, SHEBOYGAN CO.

# KOHLER PARK DUNES STATE NATURAL AREA



## KOHLER PARK DUNES (No. 71)

### STATE NATURAL AREA

ACREAGE, LOCATION AND BOUNDARY: Acres-35; Quadrangle-Sheboygan South 7.5';  
County-Sheboygan; Township-14N Range-23E, Section-23, part of NW 1/4.

NATURAL DIVISION: Eastern Mesic Forest of Lake Michigan Shorelands.

ACCESS: From Hwy. 43, three miles south of Sheboygan, go east on County Hwy. V, 1 mile then south on County Hwy. KK 1 mile and then east on Old Park Rd. into Kohler-Andrae State Park. The natural area is located north of the Sanderling Nature Center.

REASON FOR PRESERVATION: The site contains excellent examples of lake dunes and beach communities. Two state-threatened plants are present.

#### DESCRIPTION:

Kohler Park Dunes contains active and stabilized dunes, 1/4 mile of beach, and a small dry-mesic white pine forest. There are several interdunal ponds (pannes) thickly vegetated with lakeshore rush. Some of the common plants that stabilize the dunes are sand reed, Canada wildrye, marram grass, northern wheat grass, common and trailing junipers, sand cherry, and willow species. In autumn the skies above the dunes are often frequented by migrating raptors, while the low shrubs and pannes are very attractive to passerines.

COMMUNITIES OR FEATURES PRESENT	ACRES	SIGNIFICANCE
Northern Dry-Mesic Forest	1	County
Beach	1	State
Lake Dune	33	State
Threatened Plant Habitat		State

COMPATIBLE USES: Group Use, Individual Nature Study, Research Use.

LAND CONTROL AND MANAGEMENT: Land Control - DNR Parks and Recreation. Manager - Superintendent, Kohler-Andrae State Park, Rt. 3, Old Park Road, Sheboygan 53081. The interdunal ponds are checked yearly for purple loosestrife which is pulled when found. A STATE PARK STICKER IS REQUIRED.

SITE HISTORY: Jack, Scotch, and red pines were planted on the dunes before the land was acquired and donated by the Kohler Company. These planted pines, which were shading out the dune plants, have been removed. The site was designated a state natural area in February 1969. A plant species list and breeding bird surveys are on file.

TREE SPECIES OF KOHLER ANDRAE STATE PARKS

DECIDUOUS

<u>Common Name</u>	<u>Scientific Name</u>
American elm	<u>Ulmus americana</u>
Slippery elm	<u>Ulmus rubra</u>
Basswood	<u>Tilia americana</u>
Green ash	<u>Fraxinus pennsylvanica</u>
White ash	<u>Fraxinus americana</u>
Black ash	<u>Fraxinus nigra</u>
White birch	<u>Betula papyrifera</u>
Yellow birch	<u>Betula alleghaniensis</u>
American beech	<u>Fagus grandifolia</u>
Blue beech	<u>Carpinus caroliniana</u>
Butternut	<u>Juglans cinerea</u>
Black cherry	<u>Prunus serotina</u>
Ironwood	<u>Ostrya virginiana</u>
Sugar maple	<u>Acer saccharum</u>
Silver maple	<u>Acer saccharinum</u>
Red maple	<u>Acer rubrum</u>
Red oak	<u>Quercus rubra</u>
White oak	<u>Quercus alba</u>
Bur oak	<u>Quercus macrocarpa</u>
Black willow	<u>Salix nigra</u>
Eastern cottonwood	<u>Populus deltoides</u>
Aspen	<u>Populus tremuloides</u>
Bitternut hickory	<u>Carya cordiformis</u>
Tamarack	<u>Larix laricina</u>

CONIFEROUS

Eastern white pine	<u>Pinus strobus</u>
Red Pine	<u>Pinus resinosa</u>
Hemlock	<u>Tsuga canadensis</u>
White cedar	<u>Thuja occidentalis</u>

EXOTICS

Jack pine	<u>Pinus banksiana</u>
Norway spruce	<u>Picea alba abies</u>
Scotch pine	<u>Pinus sylvestris</u>

Mammals likely to occur at Kohler-Andrae State Park

<u>Common Name</u>	<u>Scientific Name*</u>
Va. Opossum	<u>Didelphis marsupialis</u>
Cinereous Shrew	<u>Sorex cinereus</u>
Giant Mole Shrew	<u>Blarina brevicauda</u>
Little Brown Bat	<u>Myotis lucifugus</u>
Silver-haired Bat	<u>Lasiurus noctivagus</u>
Big Brown Bat	<u>Eptesicus fuscus</u>
Hoary Bat	<u>Lasiurus cinereus</u>
Red Bat	<u>Lasiurus borealis</u>
Mearns's Cottontail	<u>Sylvilagus floridanus</u>
Southern Woodchuck	<u>Marmota monax</u>
Striped Ground Squirrel	<u>Citellus tridecemlineatus</u>
Chipmunk	<u>Tamias striatus</u>
Gray Squirrel	<u>Sciurus carolinensis</u>
Red Squirrel	<u>Tamiasciurus hudsonicus</u>
Southern Flying Squirrel	<u>Glaucomys volans</u>
Beaver	<u>Caster canadensis</u>
Deer Mouse	<u>Peromyscus maniculatus</u>
Northern White-footed Mouse	<u>Peromyscus leucopus</u>
Red-backed Vole	<u>Clethrionomys gapperi</u>
Meadow Vole	<u>Microtus pennsylvanicus</u>
Common Muskrat	<u>Onatra zibethicus</u>
Meadow Jumping Mouse	<u>Zapus hudsonius</u>
Coyote or Brush Wolf	<u>Canis latrans</u>
Red Fox	<u>Vulpes fulva</u>
Gray Fox	<u>Urocyon cinereoargenteus</u>
Raccoon	<u>Procyon lotor</u>
Least Weasel	<u>Mustela putorius</u>
Long-tailed Weasel	<u>Mustela frenata</u>
Mink	<u>Mustela vison</u>
Badger	<u>Taxidea taxus</u>
Northern Plains Skunk	<u>Mephitis mephitis</u>
Canada Otter	<u>Lutra canadensis</u>
White-tailed Deer	<u>Odocoileus virginianus</u>

\*After Jackson 1961. Mammals of Wisconsin. University of Wisconsin Press.

Migrating hawks observed near Kohler-Andrae, autumns 1958-1961.\*

<u>Species - Common Name</u>	<u>Scientific Name</u>	<u>Number</u>
Turkey Vulture	<u>Cathartes aura</u>	29
Marsh Hawk	<u>Circus cyaneus</u>	828
Sharp-shinned Hawk	<u>Accipiter striatus</u>	4,433
Cooper's Hawk	<u>Accipiter cooperii</u>	128
Goshawk	<u>Accipiter gentilis</u>	26
Unidentified accipiter		15
Red-tailed Hawk	<u>Buteo jamaicensis</u>	1,949
Red-shouldered Hawk	<u>Buteo lineatus</u>	135
Swainson's Hawk	<u>Buteo swainsoni</u>	3
Broad-winged Hawk	<u>Buteo platypterus</u>	2,391
Rough-legged Hawk	<u>Buteo lagopus</u>	149
Unidentified buteo		81
Peregrine	<u>Falco peregrinus</u>	109
Pigeon Hawk	<u>Falco columbarius</u>	482
Sparrow Hawk	<u>Falco sparverius</u>	304
Unidentified falcon		76
Osprey	<u>Pandion haliaetus</u>	110
Bald Eagle	<u>Haliaeetus leucocephalus</u>	13
Golden Eagle	<u>Aquila chrysaetos</u>	3

\*Adapted from H. C. Mueller and D. D. Berger, 1973. The Auk, Vol. 90, #3, pp. 591-596.

Birds mist-netted, autumns 1958-1963.

Species	Status*	No. Caught	Percent of Total
Green Heron ( <u>Butorides virescens</u> )	CSR	3	0.008
Least Bittern ( <u>Ixobrychus exilis</u> )	FCSR	1	0.003
American Bittern ( <u>Botaurus lentiginosus</u> )	FCTV	1	0.003
Sharp-shinned Hawk ( <u>Accipiter striatus</u> )	CTV	30	0.084
Cooper's Hawk ( <u>Accipiter cooperii</u> )	FCTV	1	0.003
Sora ( <u>Porzana carolina</u> )	FCTV	6	0.017
American Woodcock ( <u>Philohela minor</u> )	FCTV	27	0.076
Common Snipe ( <u>Capella gallinago</u> )	FCTV	1	0.003
Spotted Sandpiper ( <u>Actitis macularia</u> )	CTV	2	0.006
Mourning Dove ( <u>Zenaidura macroura</u> )	CTV	5	0.014
Yellow-billed Cuckoo ( <u>Coccyzus americanus</u> )	FCSR	18	0.050
Black-billed Cuckoo ( <u>Coccyzus erythrophthalmus</u> )	CTV	80	0.224
Screech Owl ( <u>Otus asio</u> )	UPR	3	0.008
Long-eared Owl ( <u>Asio otus</u> )	UWR;RSR	2	0.006
Saw-whet Owl ( <u>Aegolius acadicus</u> )	UWR;RSR	89	0.249
Whip-poor-will ( <u>Caprimulgus vociferus</u> )	FCTV	19	0.053
Common Nighthawk ( <u>Chordeiles minor</u> )	CTV	2	0.006
Ruby-throated Hummingbird ( <u>Archilochus colubris</u> )	FCTV	75	0.210
Belted Kingfisher ( <u>Megaceryle alcyon</u> )	FCTV	7	0.020
Yellow-shafted Flicker ( <u>Colaptes auratus</u> )	CTV	127	0.356
Red-bellied Woodpecker ( <u>Centurus carolinus</u> )	FCPR	1	0.003
Red-headed Woodpecker ( <u>Melanerpes erythrocephalus</u> )	CTV	2	0.006
Yellow-bellied Sapsucker ( <u>Sphyrapicus varius</u> )	CTV	191	0.535
Hairy Woodpecker ( <u>Dendrocopos villosus</u> )	CPR	13	0.036
Downy Woodpecker ( <u>Dendrocopos pubescens</u> )	CPR	91	0.255
Eastern Kingbird ( <u>Tyrannus tyrannus</u> )	CTV	12	0.034
Great Crested Flycatcher ( <u>Myiarchus crinitus</u> )	FCTV	60	0.168
Eastern Phoebe ( <u>Sayornis phoebe</u> )	CTV	42	0.118
Yellow-bellied Flycatcher ( <u>Empidonax flaviventris</u> )	UTV	499	1.397
Trail's Flycatcher ( <u>Empidonax traillii</u> )	FCTV	931	2.607
Least Flycatcher ( <u>Empidonax minimus</u> )	CTV	557	1.560
Eastern Wood Pewee ( <u>Contopus virens</u> )	CTV	73	0.204
Olive-sided Flycatcher ( <u>Nuttallornis borealis</u> )	UTV	4	0.011
Barn Swallow ( <u>Hirundo rustica</u> )	CTV	1	0.003
Blue Jay ( <u>Cyanocitta cristata</u> )	APR	41	0.115
Black-capped Chickadee ( <u>Parus atricapillus</u> )	APR	898	2.514
Boreal Chickadee ( <u>Parus hudsonicus</u> )	UPRn	1	0.003
Tufted Titmouse ( <u>Parus bicolor</u> )	UPRs,w	2	0.006
White-breasted Nuthatch ( <u>Sitta carolinensis</u> )	CPR	12	0.034
Red-breasted Nuthatch ( <u>Sitta canadensis</u> )	UTV	63	0.176
Brown Creeper ( <u>Certhia familiaris</u> )	FCTV	630	1.764
House Wren ( <u>Troglodytes aedon</u> )	CTV	29	0.081
Winter Wren ( <u>Troglodytes troglodytes</u> )	FCTV	17	0.048
Long-billed Marsh Wren ( <u>Helmatodytes palustris</u> )	CTV	1	0.003
Catbird ( <u>Dumetella carolinensis</u> )	CTV	1544	4.323
Brown Thrasher ( <u>Toxostoma rufum</u> )	CTV	97	0.272
Robin ( <u>Turdus migratorius</u> )	ATV	228	0.638
Wood Thrush ( <u>Hylocichla ustulata</u> )	CSR	42	0.118
Hermit Thrush ( <u>Hylocichla guttata</u> )	CTV	1701	4.763
Swainson's Thrush ( <u>Hylocichla ustulata</u> )	CTV	7678	21.498
Gray-cheeked Thrush ( <u>Hylocichla minima</u> )	FCTV	1553	4.348
Veery ( <u>Hylocichla fuscescens</u> )	CTV	432	1.210
Golden-crowned Kinglet ( <u>Regulus satrapa</u> )	CTV	911	2.551
Ruby-crowned Kinglet ( <u>Regulus calendula</u> )	CTV	1088	3.046
Bohemian Waxwing ( <u>Bombycilla garrula</u> )	UWV,l	2	0.006
Cedar Waxwing ( <u>Bombycilla cedrorum</u> )	CTV	494	1.383
Starling ( <u>Sturnus vulgaris</u> )	APR	7	0.020
White-eyed Vireo ( <u>Vireo gilvus</u> )	VRs	2	0.006
Yellow-throated Vireo ( <u>Vireo flavifrons</u> )	FCSR	11	0.031
Solitary Vireo ( <u>Vireo solitarius</u> )	FCTV	72	0.202
Red-eyed Vireo ( <u>Vireo olivaceus</u> )	CTV	1416	3.965
Philadelphia Vireo ( <u>Vireo philadelphicus</u> )	UTV	407	1.140
Warbling Vireo ( <u>Vireo gilvus</u> )	CSR	5	0.014

Species	Status*	No. Caught	Percent of Total
Black-and-White Warbler ( <i>Mniotilta varia</i> )	CTV	210	0.588
Golden-winged Warbler ( <i>Vermivora chrysoptera</i> )	FCSR	15	0.042
Blue-winged Warbler ( <i>Vermivora pinus</i> )	USR	2	0.006
Tennessee Warbler ( <i>Vermivora peregrina</i> )	CTV	441	1.235
Orange-crowned Warbler ( <i>Vermivora celata</i> )	FCTV	102	0.286
Nashville Warbler ( <i>Vermivora ruficapilla</i> )	FCTV	110	0.308
Parula Warbler ( <i>Parula americana</i> )	FCTV	2	0.006
Yellow Warbler ( <i>Dendroica petechia</i> )	CTV	12	0.034
Magnolia Warbler ( <i>Dendroica magnolia</i> )	FCTV	683	1.912
Cape May Warbler ( <i>Dendroica figulina</i> )	FCTV	61	0.171
Black-throated Blue Warbler ( <i>Dendroica caerulescens</i> )	UTV	16	0.045
Myrtle Warbler ( <i>Dendroica coronata</i> )	ATV	809	2.265
Black-throated-green Warbler ( <i>Dendroica virens</i> )	CTV	31	0.087
Blackburnian Warbler ( <i>Dendroica fusca</i> )	CTV	2	0.006
Chestnut-sided Warbler ( <i>Dendroica pensylvanica</i> )	CTV	77	0.216
Bay-breasted Warbler ( <i>Dendroica castanea</i> )	FCTV	47	0.132
Blackpoll Warbler ( <i>Dendroica striata</i> )	FCTV	290	0.812
Palm Warbler ( <i>Dendroica palmarum</i> )	CTV	123	0.344
Ovenbird ( <i>Seiurus aurocapillus</i> )	CTV	635	1.778
Northern Waterthrush ( <i>Seiurus novaboracensis</i> )	FCTV	679	1.901
Connecticut Warbler ( <i>Oporornis agilis</i> )	UTV	125	0.350
Mourning Warbler ( <i>Oporornis philadelphia</i> )	FCTV	97	0.272
Yellowthroat ( <i>Geothlypis trichas</i> )	CTV	99	0.277
Yellow-breasted Chat ( <i>Icteria virens</i> )	RSR	14	0.039
Wilson's Warbler ( <i>Wilsonia pusilla</i> )	FCTV	85	0.238
Canada Warbler ( <i>Wilsonia canadensis</i> )	FCTV	82	0.230
American Redstart ( <i>Setophaga ruticilla</i> )	CTV	1462	4.094
House Sparrow ( <i>Passer domesticus</i> )	APR	3	0.008
Red-winged Blackbird ( <i>Agelaius phoeniceus</i> )	ATV	3	0.008
Baltimore Oriole ( <i>Icterus galbula</i> )	CTV	10	0.028
Rusty Blackbird ( <i>Euphagus carolinus</i> )	CTV	1	0.003
Common Grackle ( <i>Quiscalus quiscula</i> )	CTV	5	0.014
Brown-headed Cowbird ( <i>Molothrus ater</i> )	CTV	12	0.034
Scarlet Tanager ( <i>Piranga olivacea</i> )	FCTV	45	0.126
Cardinal ( <i>Richmondia cardinalis</i> )	CPR	84	0.235
Rose-breasted Grosbeak ( <i>Pheucticus ludovicianus</i> )	CTV	331	0.927
Indigo Bunting ( <i>Passerina cyanea</i> )	CTV	43	0.120
Evening Grosbeak ( <i>Hesperiphona vespertina</i> )	FCTV	24	0.067
Purple Finch ( <i>Carpodacus purpureus</i> )	FCTV	367	1.028
Common Redpoll ( <i>Acanthis flammea</i> )	CWV, I	2	0.006
Pine Siskin ( <i>Spinus pinus</i> )	UTV	115	0.322
American Goldfinch ( <i>Spinus tristis</i> )	CTV	155	0.434
White-winged Crossbill ( <i>Loxia leucoptera</i> )	UWV	1	0.003
Rufous-sided Towhee ( <i>Pipilo erythrophthalmus</i> )	FCTV	70	0.196
Slate-colored Junco ( <i>Junco hyemalis</i> )	ATV	1275	3.570
Tree Sparrow ( <i>Spizella arborea</i> )	ATV	461	1.291
Field Sparrow ( <i>Spizella pusilla</i> )	CTV	44	0.123
Harris Sparrow ( <i>Zonotrichia querula</i> )	UTV	3	0.008
White-crowned Sparrow ( <i>Zonotrichia leucophrys</i> )	UTV	104	0.291
White-throated Sparrow ( <i>Zonotrichia albicollis</i> )	ATV	2243	6.280
Fox Sparrow ( <i>Passerella iliaca</i> )	FCTV	716	2.005
Lincoln's Sparrow ( <i>Melospiza lincolni</i> )	FCTV	115	0.322
Swamp Sparrow ( <i>Melospiza georgiana</i> )	CTV	380	1.064
Song Sparrow ( <i>Melospiza melodia</i> )	ATV	423	1.184

\*Taken from Barger, et al. (1960).

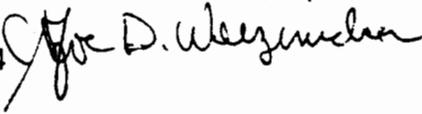
PR: Permanent Resident  
 SR: Summer Resident  
 WR: Winter Resident  
 TV: Transient Visitor  
 SV: Summer Visitor  
 s: Southern Wisconsin  
 w: Western Wisconsin  
 n: Northern Wisconsin

A: Abundant  
 C: Common  
 FC: Fairly Common  
 U: Uncommon  
 R: Rare, seen less than five times in one year.  
 VR: Seen less than once every three years.  
 I: Irregular

from Passenger Pigeon Winter, 1967 (Vol. 29, #4, pp. 111-113).

# CORRESPONDENCE/MEMORANDUM

STATE OF WISCONSIN

Date: November 7, 1988 File Ref: 2510  
To: Paul Matthiae-ER/4  
From: D. L. Weizenicker-PR/4   
Subject: NAPC Comments on Kohler/Andrae State Parks Master Plan

This is in response to the Council's comments on the Kohler/Andrae State Parks Master Plan.

As mentioned in the Master Plan, Terry Andrae State Park was established in 1928 and John Michael Kohler in 1965 with a donation of 221 acres. Under contract with the Department, the National Park Service completed a development plan for both parks in 1968.

Their plan recommended intensive recreational development of the J. M. Kohler park including a swimming beach and a 175-unit family campground. The plan also proposed a road connecting both parks with a single entrance off the Beach Park Lane town road. After considerable review and study by the Department the road was constructed in 1972, however, the new park entrance facility was delayed.

Contrary to the National Park Service plan the Department's master plan recommends that J. M. Kohler park be kept in a more natural state with limited recreational development. Terry Andrae will continue to provide for intensive-type recreation.

To further protect the rare plant species and communities in Kohler's remnant dunes, the master plan will propose expansion of the M. Kohler Park Dunes Natural Area as discussed with the Bureau of Endangered Resources.

With this revision, we believe that the master plan does a commendable job of tying together these long, narrow properties and providing a good balance of resource protection while meeting the recreational needs of the public.

DLW:DJK:bu  
M242

cc: J. Treichel-PR/4  
D. Kulhanek-PR/4 ←  
G. McCutcheon-Milwaukee



August 5, 1988

RECEIVED

AUG 7 1988

Bureau of Parks

David Weisenicker  
Director, Bureau of Parks  
Wisconsin Department of Natural Resources  
P.O. Box 7921  
Madison, WI 53707

Dear Dave:

We have examined the master plan for Kohler-Terry Andrae Parks with considerable interest. The selected alternative "moderate development" appears appropriate but several of the specific proposals raise serious questions.

The dune areas are of particular interest since they represent a rare and fragile environment and support a very rare biotic community.

The Kohler-Terry Andrae complex is utilized very heavily and the plan addresses that problem in a way that seems to encourage greater use rather than a higher quality experience and the preservation of the natural resource although I am sure that this was not the intent. Harrington Beach State Park 15 miles to the south is underutilized. Perhaps, enhancement of the facilities there and, if necessary, less subtle approaches limiting use at Kohler-Terry Andrae would shift some of the pressure. In any event the dunes will require greater protection.

Moving the park entrance from the south end to the north (especially with a large parking lot at the end of Beach Park Lane) will encourage more pressure on the private beaches as well as on the fragile dunes. It would greatly increase traffic on the park road with resulting safety pollution and maintenance problems. Clearly, one entrance is desirable— with control or closure of Beach Park Lane although that still does not appear to provide control for the ERA area west of the Black River. The plan should provide a substantial rationale for any such change. Is there a chance that, as private lands to the west are acquired, that the main park road could be constructed west of the river?

The proposed 50 car parking lot at the end of Beach Park Lane will probably result in other problems. It would certainly put greater pressure on the Natural Area by unrelated uses and would likely increase use of the private beaches to the north. Acquisition of these Kohler lands is certainly desirable and if that should occur a lot could be placed further north and east of the plantation. Apparently there is no provision for a bathhouse with the 50 car lot— a lot that will certainly attract many swimmers.



-2-

At present only a relatively small part of the dunes has reasonable protection. The plan should consider expanding the present Natural Area south of the Nature Center and protecting that portion also with corewalks. Expansion of the Nature Center parking lot seems inappropriate. Added parking might better be placed near the junction of the Nature Center road and the main road— connected to the nature center by an interesting short trail. That would not require further invasion of the dune area. A five month naturalist would certainly be helpful .

The plan states that day use activities are to be predominant but the recommendation suggests expanding the camp sites by over 25%.

On timing , would it not be better to begin the loosestrife control and the tree planting in Phase I ? Results take time and delay on the control will be more costly.

These are an interesting and valuable pair of parks. A major concern must be the continued survival of the dune and beach environments with their rare plant and animal communities.

Cordially,

Forest Stearns  
Professor Emeritus  
Chairman, Natural Areas  
Preservation Council

fs/fs

**ENVIRONMENTAL ANALYSIS AND DECISION ON THE  
NEED FOR AN ENVIRONMENTAL IMPACT STATEMENT (EIS)**

Form 1600-1

Rev. 3-87

Department of Natural Resources

District or Bureau Parks & Recreation

Type List Designation

Contact Person Dennis Kulhanek
Title Planning Coordinator
Address GEF 2, PR/4
Madison, WI 53707
Telephone Number 266-7948

**NOTE TO REVIEWERS:** Comments should address completeness, accuracy or the EIS decision. For your comments to be considered, they must be received by the contact person before

\_\_\_\_\_ (time)

\_\_\_\_\_ (date)

**Applicant:** Wisconsin Department of Natural Resources

**Address:** P.O. Box 7921  
Madison, WI 53707

**Title of Proposal:** Kohler/Andrae State Parks Master Plan Concept Element

**Location:** County Sheboygan Town Wilson  
Township 14 North, Range 23 East  
Sections 14, 22, 23, 27

Project Summary

1. General Description

The Master Plan Concept Element will guide the management and development of Kohler/Andrae State Parks for the next ten years, or until amended. The plan describes goals and objectives for the future of the park using available regional planning information, known environmental data, public input and observations of the park staff members as supporting rationale.

2. Purpose and Need

The John Michael Kohler State Park will be kept in a more natural state with recreational activities limited primarily to nature study, hiking, cross country

skiing, fishing and horseback riding. Terry Andrae State Park will be managed for camping, picnicking, swimming, fishing and other day-use activities.

The Master Plan identifies the following proposed development, management, and land acquisition proposals for the combined parks.

### Development

A new entrance on Beach Park Lane will be developed with an appropriate park entrance visitor station to serve the entire park. This facility will enable the park staff to more effectively collect vehicle admission sticker fees, enforce the admission sticker regulation, register campers, and dispense park information to visitors.

Through an administrative settlement with the Town of Wilson, the Department assumed ownership of Beach Park Lane (.4 mile) and Old Park Road (.3 mile). Beach Park Lane will require resurfacing and a highway bridge over the Black River will be replaced. A bridge on Old Park Road is also in need of replacement.

Electrical outlets including the underground wiring at 49 sites in the existing campground will be replaced.

A project for underplanting the white pine with white pine seedlings in the campground will be initiated.

The existing campground will be expanded by about 30 sites. The project will include the construction of a shower building, electrical outlets, and a chain link fence on the south boundary of the park.

The outdoor group camping area located in the dunes area northeast of the park headquarters will be relocated upon the purchase of a private parcel west of the headquarters off Old Park Road. An inspection by Department engineers will determine if existing toilet facilities and well from the private campground operation are adequate. If not, they will be replaced.

Several development projects are recommended for the south picnic area. They include new parking areas for 200 cars, picnic shelter, and wooden-type children's play equipment.

The trailer dumping station will be redesigned so that users are not routed through the campground.

Improvements to the nature center will include air conditioning, speaker system, sound proofing, new exhibit construction, and lighting.

To increase hiking and other trail-type opportunities in the parks, the following projects are recommended.

One-mile of cordwalk through the state natural area addition is proposed which would connect the south park area and campground with the Creeping Juniper nature trail and nature center.

If the private Kohler lands are acquired, an additional 3 miles of combination horse/hiking/cross country ski trail will be developed. Two bridges over the Black River will be needed to connect with the existing trails. A 20-car/trailer parking lot off C.T.H. V will serve as the trail head.

Rerouting the Indian Pipe nature trail when the family campground is expanded and abandoning a 1,800-foot loop of attached hiking trail are other proposed trail projects.

The existing 36-car nature center parking lot will be enlarged to provide 30 additional parking spaces for the public attending organized programs and activities at the nature center as well as trail and beach users.

A bituminous-paved access road to the service area north of Beach Park Lake including parking will be constructed.

A 50-car paved parking lot at the end of Beach Park Lane will be constructed in addition to a combination vault-type toilet. A well with a hand pump is also needed.

Three waterfowl nesting ponds and an interpretive ¼-mile boardwalk in the marsh area of the Black River are proposed. Interpretive signs will be installed at various locations along the boardwalk.

The combination shower building/shelter in the campground will be modified by removing the outmoded shower portion of the structure. With minor structural changes, the shelter will continue to serve a useful purpose. The project would also entail relocation of the electric service panel.

When the new park entrance is developed off Beach Park Lane the asphalt road and parking area associated with the old contact station on Old Park Road will be removed, and the site topsoiled, seeded, and landscaped. A large turn around will be constructed at the end of Old Park Road.

The visually distracting electrical lines presently serving the contact station, park office and north picnic area will be replaced by underground service. Power lines along Beach Park Lane and those serving the park service building and residence will also be placed underground. The north-south park road will be modified to develop a satisfactory connection with the campground road.

A bicycle path or bike lane will be constructed from Beach Park Lane along the north/south park road, however, no public funding will be used. The project could be accomplished by a local service organization.

### Management

Management of the parks is the responsibility of the Park Superintendent 4 who is assisted by an Assistant Superintendent 2 and a Natural Resources Assistant. Approximately 10-13 summer employees are also hired for public contact, law enforcement, nature interpretation, and various maintenance functions.

To develop a more active interpretive program it is recommended that a 5-month limited-term employee (LTE) naturalist position be added to the park staff. Interpretation can then be both active and passive.

As a unit of the Wisconsin State Park system, Kohler/Andrae has been developed and managed under chapter 27, laws of Wisconsin; specifically, section 27.01, which governs state parks. The properties are also managed under the provisions of Wisconsin Administrative Code 45, which contains rules of the Wisconsin Department of Natural Resources pertaining to the conduct of visitors at state parks, state forests, and other properties under jurisdiction of the Department.

### Acquisition

As of 6/30/88 554.41 acres were state-owned at John Michael Kohler with an acreage goal of 805.71 acres. State ownership at Terry Andrae is 205.9 acres with an acreage goal currently established at 209.0 acres.

It is recommended that the present boundaries be expanded to include an additional 90.27 acres of land at J. M. Kohler and 20 acres at T. Andrae. The additional lands will provide buffer for the family campground, a potential site for relocating the outdoor group camping area, small ponds for children's fishing, and protection of the Black River watershed.

With the proposed boundary expansion at J. M. Kohler plus a corrected acreage figure for private lands within the current park boundary (242.38 acres), the new adjusted acreage goal is 887.06 acres. At T. Andrae the adjusted acreage goal is 225.9 acres.

### 3. Authorities and Approvals

Wis. Statutes Ch. 27.01 (Public Parks and Recreation), State and local building codes, H78 regarding campgrounds, and Natural Resources board approval of master plan.

### 4. Estimated Cost and Funding Source

Total estimated development cost based on 1988 figures is \$1,266,700. Funding sources, depending on availability, will be ORAP formula and federal LAWCON cost sharing funds.

## Proposed Physical Changes

### 5. Manipulation of Terrestrial Resources

Construction of the 1,000-2,000 square foot park entrance visitor station will entail minor footing excavation. Excess soil will be distributed on site and graded. Underground electrical, well and pressurized water system, and a septic field for the building's restrooms will be required for utilities. All disturbed areas will be carefully backfilled and seeded. Some road work with parking will also be part of the project.

A highway bridge on Beach Park Lane and one on Old Park Road are over 50 years old and in need of replacement. Both bridges cross the Black River. About .4 mile of Beach Park Lane will be resurfaced with bituminous paving.

Upgrading the electrical service in the 105-unit campground will entail replacing the electrical outlet pedestals and underground wiring at 49 sites. Trenches for the underground wiring will be carefully backfilled and seeded.

Developing the 30-unit family campground addition will require the construction of bituminous paved one-way road. Grading should be minimal. The proposed 20' x 24' shower building would be constructed with masonry walls, concrete foundation and floor, and truss roof with asphalt shingles. Size of the septic field and septic tank will be determined by engineering. Excavation for the foundation and sewage system is estimated between 500-600 cubic yards. The excavated material will be used as backfill with the excess to be wasted on the site. Other utilities will include water and underground electrical for the building and for the camper electrical hookups. All utilities will be buried, carefully backfilled, and the disturbed areas seeded. The project will also entail erection of a chain link fence on the south park boundary.

The existing outdoor group camping area will be relocated upon purchase of a private parcel of land off Old Park Road. Department engineers will determine if existing toilet facilities and well from the private campground operation are adequate. If not, the toilets will be replaced with standard vault-type toilets and the well will be upgraded. The existing road work will probably be adequate but may be slightly revised to allow for more parking, provide better traffic circulation, etc.

Bituminous paved parking areas for 200 cars will be constructed to serve the south picnic area. Tree clearing would not be required and grading will be minimal. An open picnic shelter, approximately 30' x 40', is also proposed as part of this project. Some excavation would be required for the slab and footings. Excavated material will be used to provide proper drainage away from the slab. Wooden-type children's play equipment will also be installed in the picnic area.

Modifying the existing trailer dumping station so that users are not routed through the campground to exit will require the construction of less than  $\frac{1}{4}$  mile of new one-way road. Some grading but not tree clearing would be needed. Any disturbed areas would be topsoiled and seeded.

Other road projects include constructing approximately 2,000 feet of bituminous-paved access road to the service area north of Beach Park Lane plus parking. Several hundred feet of two-way road will be constructed to develop a proper connection with the north-south park road to the south picnic area/campground access road. A large turn around will be constructed at the end of Old Park Road. Minimal grading and tree clearing will be required. All disturbed areas will be topsoiled and seeded.

A 50-car bituminous paved parking lot at the end of Beach Park Lane will be constructed to improve an existing beach access point. A combination vault-type toilet and well with handpump will be constructed. Approximately 40 to 60 cubic yards of materials would be excavated for the toilet vault. Spoil will be distributed on site.

Proposed trail projects include 3 miles of combination horse/hiking/cross country ski trail with 20 car/trailer parking lot, 1 mile of cordwalk, and  $\frac{1}{4}$  mile of boardwalk in marsh area of the Black River. Two bridges over the Black River will be constructed when the combination horse/hiking/cross country ski trail project is initiated.

Other minor projects include interior improvements to the nature center, a 30-car expansion of the nature center parking lot, shower building/shelter modification, and burial of above ground electrical lines near the old park office and north picnic area.

#### 6. Manipulation of Aquatic Resources

Three 200' x 300' waterfowl nesting ponds will be dredged in the Black River marsh. Each pond will have a 30' x 40' nesting island. They will provide nesting and brooding areas for mallard, blue-wing teal, and other duck species.

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

See item #5 - Manipulation of Terrestrial Resources

#### 8. Emissions and Discharges

Septic fields will be constructed to treat the waste water from the park entrance visitor station and the campground addition shower building.

Other proposed toilet facilities will be of the sealed vault type.

9. Other Changes

The south end of the family campground and other areas of the park that have mature to over-mature stands of white pine will be under planted with white pine seedlings because of the lack of natural regeneration.

Prescribed burning will be used to maintain the grass meadow east of County Highway V in the northern half of the property. This will promote reversion to native grasses and forbs.

The pine plantation located in the northwest section of the parks will be thinned by removing every other row.

To improve fish habitat in the Black River, woody vegetation along the river banks will be selectively removed to encourage grass cover for better bank stabilization.

The 35-acre Kohler Park Dunes State Natural Area will be expanded to include an additional area of remnant dunes containing rare plant species and communities. The expanded natural area will total about 285 acres in size.

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

- a. Locator Map
- b. Development Map
- c. Ownership Map
- d. Vegetative Type Map

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AFFECTED ENVIRONMENT (Describe existing features that may be affected by the proposal)

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Information Based On (check all that apply):

Personal Contacts (list in item 28)

Field Analysis By:  Author  Other (list in item 28)

Past Experience With Site By:  Author  Other (list in item 28)

11. Physical (topography - soils - water - air)

The soils survey of Sheboygan County (mapped by the U.S. Dept. of Agric. Soil Conservation Service and published in 1974) shows the soils of Kohler-Andrae State Parks to be of origin related to the hydrology of Lake Michigan. The primary soil types in the parks are classed as dunes and beach and are nearly pure sand with very low organic content. These soils are extremely unstable when the existing ground vegetation is removed. The soils inland from the dunes are made up of the Oakville series and consist of loamy fine sands of

slopes from 0-6% and 6-12%. These are for the most part well-drained and considered useful for recreational development. The soils along the Black River bottom are made up of Adrian and Houghton muck series. They are for the most part saturated throughout the year and are considered unsuitable for most development purposes. They do, however, support a growth of native shrubs and hardwood trees.

Along the west boundary of the park the land rises up into an agricultural area. Here the soils are complex in nature with many small pockets of various soils types represented. The soil types in the upland area consist of Granby loamy fine sands, Navan loam, Oakville loamy fine sand with a slope 0-6%, Granby loamy fine sand, and Matherton silty loam, 0-3% slope.

Kohler-Andrae's bedrock geology dates back to the Devonian era, about 350 million years ago. This Devonian formation is made up of dolomite and shale covered by a thick mantle of ground moraine. The ground moraine material was deposited during the last great ice age some ten thousand years ago.

The parks surface geology owes its existence almost entirely to wind and wave action. The bulk of the parks is a stabilized dunes area. On the western edge of the parks are remnants of ancient "Glacial Lake Nippissing." The beachline of this ancient glacial lake is visible in the northwest corner of the property some 14 feet above the current lake level.

Kohler-Andrae State Parks have two important water features; Lake Michigan and the Black River paralleling the lakeshore near the western boundary of the parks.

Lake Michigan and its associated beach frontage is by far the most dominant and important natural feature of the parks. It is the focus of much of the recreation that takes place on the property and one of the prime reasons that people visit the parks.

The Black River parallels the Lake Michigan shoreline and runs in a northerly direction, entering the lake about 1½ miles north of the parks. The river has a low gradient and in most places appears to be marsh rather than a river. Despite this character, there are runs of trout, salmon, and northern pike up the Black River into the parks.

12. Biological (dominant aquatic and terrestrial plant and animals species and habitats including threatened/endangered species; wetland amounts, types and hydraulic value)

Many raptors and passerines pass through the parks during migration. Several endangered and threatened species of birds migrate through the properties and the red-shouldered hawk has been sighted during the breeding season. Besides the migratory birds, many species are summer and/or winter residents. Species range from ducks and shorebirds to woodland warblers, vireos, and marshland rails and herons. Ring-necked pheasants overwinter in the cattail and shrub marsh on the property.

A variety of mammals also inhabit the area including a fluctuating muskrat population, raccoons, coyotes, and otters. A number of deer are also present in the parks. They tend to concentrate in the pines on the north end during winter.

A variety of small animals occur in the parks. They include meadow voles in the grassy areas and red squirrels in the conifer forest areas and 13-lined ground squirrels in the mowed areas. Predators such as red and gray fox, mink, and weasels are also present.

Kohler-Andrae State Parks have a number of vegetation types that add scientific as well as aesthetic value to the property. The most notable example of these interesting plant types is located in the 35-acre natural area northwest of the nature center. It is an area of both active and stabilized dunes with accompanying dune vegetation. Included in this zone is  $\frac{1}{4}$  mile of beach plant communities and two small areas of white pine forest. The area is considered of value for educational and research purposes and provides habitat for four threatened plant species--clustered broom rape, dune thistle, dune goldenrod, and sand reed.

The balance of the acreage on the north end of the property is a mixed stand of northern red oak, eastern white pine, red maple, yellow birch, and beech. It can be described as being in a subclimax state with shade intolerant species such as red maple, white pine, and white birch predominating. Shade tolerant species such as beech and ash are beginning to gain in dominance. The oak and pine have reached maturity and are slowly succumbing to diseases such as fungus heart rot.

The forest type designated as swamp hardwoods is composed of about 92 acres. Scattered throughout the type are green ash that have reached economic maturity. The area is characterized by a fluctuating water table resulting in shallow rooted trees. Blow-down is quite common, however, it is recognized this can be desirable for wildlife habitat.

### 13. Cultural

#### a. Land use (dominant features and uses including zoning is applicable)

In accordance with the Department's land use classification system lands within the parks are classified as: Extensive Recreation Area (ERA), Intensive Recreation Development (IRD), Natural Area (N), Resource Development (RD5), and Administrative (AD1).

Extensive recreation area accounts for about 695 acres of the parks and includes most of the scenic lands such as dunes, forest, and marsh outside of the heavily developed portion of the property. These lands are available for certain forms of recreation like hiking, cross-country skiing, nature study, beach combing, and horseback riding.

The 285-acre state natural area contains examples of active and stabilized lake dunes. Unique beach plant communities include four state-threatened plants. The area is valuable for its educational and research value.

Approximately 15 acres, classified as RD5, are being used and managed as a pine plantation. The pine plantation was established as a demonstration tool for reforestation and also to reduce wind erosion in a highly unstable soil area.

About 114 acres are devoted to intensive recreational development (IRD). The land is used for family campgrounds, picnic areas, play areas, outdoor group camp area, and swimming beach.

Two areas of about 4 acres in size are classified as administrative areas (AD1). One area near the entrance road includes the office/visitor contact station, the other, the park manager's residence and shop storage building.

b. Social/Economic (include ethnic and cultural groups)

The first land survey of Sheboygan County area occurred between 1833 and 1836. Land surveyors generally preceded settlement, and "Yankees" from the eastern United States of English extraction settled in the Sheboygan County area from 1836 to about 1850. This immigration was followed by German, Dutch, and Irish immigrants in the 1840's and 1850's. These later immigrants were mostly farmers.

Although the parks are open year-round, park use is concentrated primarily in the summer months with picnicking, sunning, swimming, camping, hiking, nature study, and fishing being the popular activities. Annual attendance over the past five years has averaged over 290,000 visitations and over 48,000 camper days. Visitors to the park may contribute to the local economy. Proposed development and improvement may also have a beneficial economic impact on the local economy.

This action will not affect or displace any ethnic group or Native American. New facilities will be designed to accommodate the handicapped.

c. Archaeological/Historical

State Historical Society records show that 21 archaeological sites have been documented within the park project boundary.

14. Other Special Resources (e.g. State Natural Areas, prime agricultural lands)

The 285-acre Kohler Park Dunes State Natural Area contains active and stabilized sand dunes and is considered valuable for its educational and research value.

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**ENVIRONMENTAL CONSEQUENCES (Probable adverse and beneficial impacts including primary, indirect and secondary impacts)**

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15. Physical (include visual if applicable)

Construction of facilities will cause temporary effects of machinery noise, engine emissions, visual disturbance, and in some cases altered traffic patterns during actual construction. Other more lasting effects will be the visual presence of the new structures or facilities, disturbance of the ground for footings and foundations, and the placement of pavement for access drives and parking lots.

16. Biological (include impacts to threatened/endangered species)

A limited number of trees and shrubs in the direct path of construction will be removed. Ground layer vegetation will be removed from construction sites and replaced with grass/turf species after construction is completed.

Removal of dead and dying trees will occur to ensure a healthy timber stand in the intensively developed areas and ensure visitor safety. Tree cutting will take place in the pine plantation for thinning purposes.

Some fauna would continue to be displaced by park usage.

17. Cultural

a. Land Use (include indirect and secondary impacts)

Number of acres intensively developed for recreation will increase slightly as the proposed development items are completed.

Roads, parking lots, buildings will be designed to fit the landscape and cause minimal impact.

b. Social/Economic (include ethnic and cultural groups and zoning if applicable)

Improvement of park facilities will result in better service to the public. Adding more campsites with showers and electrical outlets will increase campsite registration revenue and park admission sticker sales. It is expected that the park will continue to generate local commercial sales for such things as gasoline, picnic and camping supplies, and related items.

Studies indicate that state-owned land is not an economic burden to local governmental units due to State payments in lieu of taxes and increased school aids in many cases.

The average annual park attendance over the last five years at Kohler/Andrae was 290,000. Within a ten-year period attendance is expected to increase to about 350,000 visitations per year. Management and enforcement duties will increase with an increase in attendance.

c. Archaeological/Historical

All future development plans will recognize the existence of known archaeological sites and make every effort to preserve them. Because of the relatively high density of archaeological sites in the park, the State Historical Society requests review of all development plans for potential impacts on archaeological sites.

18. Other Special Resources (e.g. State Natural Areas, prime agricultural lands)

One-mile of cordwalk, funded by the Bureau of Endangered Resources, will be placed in the dunes of the Kohler Park Dunes State Natural Area.

19. Summary of Adverse Impacts That Cannot Be Avoided (more fully discussed in 15 through 18)

Increase presence of man within the park may mean some interference with wildlife habitat and plant damage. The construction stage would expose some soil to water and wind erosion. Some dirt and noise would also be created during construction. Air pollution emissions to the atmosphere would increase slightly due to increase auto traffic into and out of the area. Some minor grading will take place around construction sites, however; this will only minimally alter existing topography and drainage patterns. Some soil erosion could occur at construction sites; however, this would be minimized through the use of appropriate erosion control techniques. Increased use could possibly increase the need for public services such as police and fire protection, as well as medical attention. Gasoline and other fuels will be consumed by people coming to the park, as well as by maintenance vehicles. Traffic will increase on the highway systems leading to the property; however, this increase is so minimal, it is not expected to have any effect on traffic volume.

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ALTERNATIVES (No action - enlarge - reduce - modify - other locations and/or methods)

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

a. No Change--Status Quo

This alternative would provide that the properties continue operating as they are now. There would be no organized attempt to overcome the listed management problems. There would be little change, if any, in the degree

of resource protection. The development would be limited to necessary replacement of facilities as funds became available. This approach would also mean a decline in the quality of recreational experience in the parks and may result in the overall decline in use by the public. Therefore, this alternative is not desirable.

b. Modest Recreational Development and Resource protection.

During the 10-year master planning period, the park could accommodate a modest increase in the number of users. Total park visitation could increase by 10% with annual attendance of 350,000. Problems addressed in the master plan would be studied and solved. A much higher degree of resource protection would occur. It would help insure a quality recreational experience. New development and upgrading of existing facilities would be required.

This recommended alternative would require minor expansion of the project boundary to include some land west of the Black River and acquisition of major parcels inside the project boundaries.

c. Intensive Recreational Development

Under this alternative, the intensity of park use and development would be substantially increased. Significant increases of park use could be achieved with major expansion of the campground facilities, including development of shower facilities, flush toilet facilities, and electric utility hookups. It would require the acquisition of additional lands west of the Black River to provide for major expansion of the campground. Additional picnic area with support facilities would also be provided.

This alternative, which is not feasible at this time, would also mean a diminishing of the level of resource protection provided for the lands that make up Kohler-Andrae State parks.

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EVALUATION OF PROJECT SIGNIFICANCE (Complete each item)

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21. Significance of Environmental Effects

- a. Would the proposed project or related activities substantially change the quality of the environment (physical, biological, socio-economic)? Explain.

No.

- b. Discuss the significance of short-term and long-term environmental effects of the proposed project including secondary effects; particularly to geographically scarce resources such as historic or cultural resources, scenic and recreational resources, prime agricultural lands, threatened or

endangered species or ecologically sensitive areas. (The reversibility of an action affects the extent or degree of impact.)

Proposed new development will have limited impact on the property. Use is expected to increase slightly over the next 10-year period; however, this increase should not overtax the man-made and natural resources. Maintenance of the area, its manmade features and vegetative cover maximize user enjoyment and perceptions, as well as provide some diversity of habitat.

Development of the two campgrounds, parking lots, park entrance visitor station, and other support facilities will cause some minor short-term disruption to the soil due to exposure and compaction during the construction phase. Soils may also be affected by such things as compaction caused by maintenance equipment and foot traffic. Maintenance practices will be utilized to guard against destruction of ground cover which may result in erosion or other detrimental effect to the resource.

Publicly-owned and accessible frontage on lake Michigan is a scarce resource statewide. Protection provided under current state park status will continue. Proposed actions do not reduce supply.

22. Significance of Cumulative Effects.

Discuss the significance of reasonably anticipated cumulative effects on the environment. Consider cumulative effects from repeated projects of the same type. What is the likelihood that similar projects would be repeated? Would the cumulative effects be more severe or substantially change the quality of the environment? Include other activities planned or proposed in the area that would compound effects on the environment.

Not expected to be significant. No additional actions planned within the 10-year life of the master plan.

23. Significance of Risk

- a. Explain the significance of any unknowns which create substantial uncertainty in predicting effects on the quality of the environment. What additional studies or analyses would eliminate or reduce these unknowns? Explain why these studies were not done.

The park development proposed in the master plan would be designed to meet state park standards. Unknowns are unlikely.

- b. Explain the environmental significance of reasonably anticipated operating problems such as malfunctions, spills, fires or other hazards

(particularly those relating to health or safety). Consider reasonable detection and emergency response, and discuss the potential for these hazards.

Operating problems are highly unlikely.

24. Significance of Precedent

- a. Would a decision on this proposal influence future decisions or foreclose options that may additionally affect the quality of the environment? Explain the significance.

No.

- b. Describe any conflicts the proposal has with plans or policy of local, state or federal agencies that provide for the protection of the environment. Explain the significance.

The master plan proposals are in accord with local, county, and state outdoor recreation plans and are consistent with statutory authority and Natural Resources Board policies.

25. Discuss the effects on the quality of the environment, including socio-economic effects, that are (or are likely to be) highly controversial, and summarize the controversy.

Some of the area's private campground owners may object to the proposal to expand family camping facilities at Kohler/Andrae State Parks.

There may be some objection to the State purchase of private lands within the proposed project boundary.

26. Explain other factors that should be considered in determining the significance of the proposal.

None.

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SUMMARY OF ISSUE IDENTIFICATION ACTIVITIES

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27. Summarize citizen and agency involvement activities (complete and proposed).

A workshop to gain citizen participation in the master planning process was held October 9, 1982, at the South High School Library in Sheboygan. Approximately 12 citizens attended.

On September 15, 1987, the proposed master plan was discussed with John Lillesand, Vice President of the Kohler Company, Kohler, Wisconsin.

The master plan's acquisition and development proposals were presented on May 16, 1988, to the Town of Wilson board members for their information and comments.

The public was invited to an open forum, June 22, 1988, at the Mead Public Library in Sheboygan for the opportunity to express their views on the master plan proposals. Twenty-five citizens attended.

28. List agencies, groups and individuals contacted regarding the project (include DNR personnel and title).

<u>Date</u>	<u>Contact</u>	<u>Comment Summary</u>
August, 1987	DNR Engineering Section	Inspection of two town road bridges on roads that grant access to Kohler/Andrae State Parks.
1982 to the Present	DNR Task Force Members	Development of the Kohler/Andrae Master Plan.
1988	Bureau of Endangered Resources	Status of parks' natural areas and cordwalk project.

Project Name: Kohler/Andrae State Park Master Plan County: Sheboygan

**DECISION (THIS DECISION IS NOT FINAL UNTIL CERTIFIED BY THE APPROPRIATE AUTHORITY)**

In accordance with s. 1.11, Stats., and Ch. NR 150, Wis. Adm. Code, the Department is authorized and required to determine whether it has complied with s. 1.11, Stats., and Ch. NR 150, Wis. Adm. Code.

29. Complete either A or B below.

A. EIS Process Not Required ..... [ ]

Analysis of the expected impacts of the 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.

B. Major Action Requiring the Full EIS Process ..... [ ]

The proposal is of such magnitude and complexity with such considerable and important impacts on the quality of the human environment that it constitutes a major action significantly affecting the quality of the human environment.

Signature of Evaluator	Date Signed
<i>Dennis Kulhaneck</i>	1/4/89
Noted: Area Director or Bureau Director	Date Signed

Copy of news release or other notice attached? [ ] Yes [ ] No

Number of responses to notice \_\_\_\_\_

Public response log attached? [ ] Yes [ ] No

**CERTIFIED TO BE IN COMPLIANCE WITH WEPA**  
 District Director or Director of BEAR (or designee)  
 Date Signed

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NOTICE OF APPEAL RIGHTS

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If you believe that you have a right to challenge this decision, you should know that wisconsin statutes and administrative rules establish time periods within which requests to review department decisions must be filed.

For judicial review of a decision pursuant to sections 227.52 And 227.53, Stats., You have 30 days after the decision is mailed, or otherwise served by the department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to section 227.42, Stats., you have 30 days after the decision is mailed or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30-day period for filing a petition for judicial review.

Note: Not all Department decisions respecting environmental impact, such as those involving solid waste or hazardous waste facilities under sections 144.43 to 144.47 and 144.60 to 144.74, Stats., are subject to the contested case hearing provisions of section 227.42, Stats.

This notice is provided pursuant to section 227.48(2), Stats.

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