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INTRODUCTION

Devil's Lake State Park is located in Sauk County in the Baraboo Range, 3 miles south of Baraboo.

Devil's Lake became a state park in 1911, and is Wisconsin's most heavily used state park. In 1971 it became one of the Ice Age National Scientific Reserve Units. The Ice Age Master Plan recommended that the park boundary include 6,810 acres. The Natural Resources Board approved that acreage goal in May, 1974.

The Ice Age Master Plan also recommended certain development changes at the park. These recommendations were aired publicly at several meetings, and came under some objections by the local community. In June 1977, the Secretary appointed a 13 member ad hoc citizen's committee to work with the Department to develop plans for Devil's Lake. The committee made its recommendations to the Secretary in May, 1978. Most of the committee's recommendations were incorporated into the plan. All were seriously evaluated and considered in the planning process.

The development outlined in this plan is premised on improving the visitors' enjoyment, recreational, and educational experience, and protecting the unique resources of Devil's Lake State Park. In accordance with Department master planning procedure, this plan assumes a period of approximately ten years.
SECTION 1 - ACTIONS

A. GOAL AND OBJECTIVES

1. Goal:
To develop and manage Devil's Lake State Park to provide park visitors with quality recreational and interpretive experiences, and to preserve and protect the unique geologic and other natural features of the park as a unit of the National Ice Age Scientific Reserve.

2. Objectives:

Resource Management
- To develop and maintain recreational and interpretive facilities consistent with the protection and preservation of the park, and to develop them within a design capacity consistent with that objective.
- To classify much of the park as resource protection areas, and wherever feasible to return the flora and fauna of the park to pre-settlement conditions.

Visitor Use
- To design the park for a capacity of about 8,000 people at any one time, and about 1.2-1.4 million visitors annually. This design capacity will accommodate expected off-season use.
- To encourage and provide for non-consumptive types of recreation and education.
- To provide for orderly automobile access to the major use areas of the park and to discourage automobile access to other areas of the park.

Interpretation
- To provide creative interpretation for about 250,000 participants annually, with particular emphasis on Ice Age interpretation.

Park Operations
- To acquire all lands within the park boundary.
- To provide controlled access to the major use areas.
B. RECOMMENDED MANAGEMENT AND DEVELOPMENT PROGRAM

1. Property Development
   a. General
      Consistent with the overall goal and objectives, the proposed Devil's Lake development is
designed at providing for the recreational and interpretive needs for about $6 million annual
activities while imposing the least possible impact on the intrinsic values of the park.
The basic use of the park will not be changed. The intensive use area - North Shore and
South Shore will remain. Family camping will remain at about its present level. However, all
family camping will be located at the north end of the park and the South Shore will be
converted to a day-use only area. The area variety of extensive recreational opportunities,
such as hiking and cross-country skiing will continue to be served.

   Interpretive facilities will be expanded with the institution of Ice Age programs.

   b. Parks Entrances and Roads
      There are three entrances to the interior of the park and the lake environs: South Shore Road
from I-93, S1-W Road from US-12, and South Shore Road from I-23 (the north entrance). There
is one way exit onto DL on the North Shore. The existing entrances and exits will be
retained. The existing traffic patterns of the roads within the park will remain unchanged,
with two possible exceptions: Ultimately, a separate entrance into the South Shore use area
from a relocated South Shore Road would be provided, and the North Shore entrance may be moved
to permit visitors contact prior to the lake environs. Road relocation would require the
construction of the Town Road.

   The ad hoc committee recommended that the North Shore park entrance and official/interpretive
center be located in the northwest section of the park. Specifically, they recommended the
Portsmouth site. The Department explored that recommendation, along with others, and agrees
that the entrance and the headquarters should be located in the northwest part of the park.

While that broad guideline, many alternative sites were considered. At the time the draft
plan was published the choices were narrowed to five alternate sites. They were shown in
the draft plan as: 1) S1-W Area, 2) The Portsmouth site (preferred by the ad hoc
committee), 3) the site south of the Lakewood subdivision area (recommended site in the draft
plan), 4) the site above the amphitheater, and 5) a site on the North Shore.

This plan narrows the alternatives to site 3 (preferred to in this plan as alternate one), the
area south of the Lakewood subdivision, and site 4 (alternate 2) the area above the
amphitheater. The S1-W site was rejected because the ad hoc committee and the local
community were totally opposed to it because of its potential for allowing the Department to
work in the area. The Portsmouth site was rejected because of the potential of roadwork
would be necessary to incorporate the site into the total park plan. The North Shore
site was rejected because there was insufficient space and there would have been too many
conflicts among activities.

Of the two remaining sites, the preferred site is alternate one, the area south of
the Lakewood subdivision (Fig. 12). However, the Visitor Center/Headquarters complex would be
constructed there only if and when the necessary land acquisition in the area is completed and
the necessary town roads are realigned. Since funding for this project will not likely be
available for some time, a delay is not critical. Should funding become available before
there appears to be any reasonable chance of gaining control of the necessary parcels and the
town roads, the facility could then be constructed at alternate two, the area above the
amphitheater (Fig. 12).

If the facility should be built at alternate two, it would still be crucial to gain control of
the North Shore divided road. If it remains as a two road the design of the parking lot is very
limited, and it could be difficult if not impossible to provide an efficient facility.

Alternate one is the preferred site because it would allow visitors to be contacted before
they enter the lake environs. This would help to relieve the congested traffic conditions
that sometimes occur. Also, North Shore users could visit the facility without entering the
North Shore area. Table I attempts to compare the benefits of each of the two prime
alternatives.
### Table 1: Comparison of Visitor Center Sites

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<tr>
<th></th>
<th>Alternate One</th>
<th>Alternate Two</th>
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<tbody>
<tr>
<td></td>
<td>South of Lakewood</td>
<td>Above the Bluff</td>
</tr>
<tr>
<td>1) Encountered before entering lake environs</td>
<td>5</td>
<td>0</td>
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<tr>
<td>2) Sewer and water available</td>
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<td>4</td>
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<tr>
<td>3) Road construction possible</td>
<td>3</td>
<td>3</td>
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<tr>
<td>4) Ample space</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>5) Aesthetics - view from site</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>6) State-owned land</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>7) Close to possible shuttle/parking</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>8) Public acceptance</td>
<td>3</td>
<td>5</td>
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<tr>
<td>9) Operational efficiency</td>
<td>4</td>
<td>3</td>
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<tr>
<td>10) Proximity to service area</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>11) Convenient to south shore users</td>
<td>3</td>
<td>1</td>
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<tr>
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<td><strong>33</strong></td>
<td><strong>36</strong></td>
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**RATED FROM 1-5, WITH 1 BEING THE MOST DESIRABLE**

### c. Intensive Use Areas

The intensive use areas will provide facilities and services for densely populated recreational activities such as picnicking, swimming, and camping.

### (1) South Shore Day-Use Area

Figure 7 shows the proposed redevelopment of the South Shore. The entire South Shore use area will be converted to a day-use only area. The existing campground there will be obliterated.

As part of the redevelopment of the South Shore, the town road (South Shore Road) that now bisects the area will be relocated further south along the base of the South Bluff. This will accomplish two things:

1. It will remove a busy road which presently passes through the middle of a heavily used public use area.
2. By relocating the road farther south along the base of the bluff, much more of the useable space can be opened up for recreational use.

When the road is relocated, a separate single entrance road into the use area will be built. A contact station will be included. The single entrance road can be gated off at night and the use of the area can be closely controlled.

The South Shore swimming area beach will be expanded. The existing beach is about 300 linear feet. Another 300-foot beach will be established on the South Shore. A definite destruction will be made between the sandy beaches and the turf behind them.

The entire South Shore area will be regraded and new turf established where necessary. A master planting plan for the South Shore will be prepared and implemented. All the overhead utility wires will be buried.

Wherever possible, the toilet buildings in the existing campground will be utilized for day-use purposes.
Approximately 550-750 parking stalls will be provided. This will accommodate all but the busiest weekends. Earlier plans for the South Shore area envisioned about 300 parking stalls and a reliance upon a shuttle system to accommodate an overflow. This plan recognizes the long-range desirability of a shuttle system. However, because of costs, for the near future the park will not utilize a shuttle system. Nothing in this plan forecloses that future option.

Parking stalls will be reduced from 200 square feet and a 30-foot backing-up space to 162 square feet and a 25-foot backing-up space. This will be entirely adequate for today's smaller cars, and will permit parking for about 550 cars to be constructed on the same space that has been previously designed for 350 cars.

A pedestrian walkway will be established along the South Shore Road adjacent to the lakeshore. The walkway could be a boardwalk over the rocks. This is needed to accommodate the large number of visitors who walk along the lake on the narrow South Shore Road.

South Shore Buildings

Contact Station

An engineering study will determine if the contact station should be moved and renovated, or replaced altogether.

Shelter/Compassion Building

No change is recommended other than the installation of a small, permanent interpretive exhibit in the shelter.

Boathouse

No change recommended.

South Shore Campground Toilet Buildings

Detailed site planning and engineering studies will determine which of these buildings will be retained and used for day use.

Youth Camp

The existing youth camp (old CCC barracks) will be renovated to continue to accommodate 40 campers.

A new combination building including showers and laundry will be added. This facility will enable the YCC program to operate a permanent base or site camp at Devil's Lake. Part of the development funding will be provided by the YCC program. This building should be so constructed to allow suit if the youth camp should ever need to be relocated.

The outdoor group camping area that now surrounds the youth camp will be removed and relocated elsewhere if a suitable site can be located.

Boat Launching and Parking Area

South Shore Road will be relocated several hundred feet to the west, and a new boat launching area will be constructed between the new road and the lake. It should provide for about six boat trailer parking stalls and 25 automobile parking stalls. The area will also serve for trail head parking for the Tumbled Rocks Trail and the Koshkonong Spring and Porcline Trails. A concrete launch ramp and a portable pier will be provided. A set of septic vault pit toilets will be provided near the boat launch area.

The site plan for this area should provide for a vegetative and/or earth and rock screening. The boat launch area is one of the first things a visitor sees upon entering the lake environs from the east. Figure 7A is a schematic plan for the development of the boat launch area.

(2) North Shore Day-use Area

Figure 8 shows the proposals for the North Shore. The North Shore day-use area will not be changed substantially. The area will be renovated and controlled access and improved parking areas will be provided. The beach will include about 500 feet.

The present 416 stall parking capacity can be expanded by about 20% by reducing the size of the parking stalls. The road system will be modified to permit the going off of the day-use areas after 11:00 p.m., while still permitting through traffic and campground areas.
The amphitheater will be replaced with a new one closer to the campgrounds. Amphitheater users are almost entirely campers.

A boat mooring area will be provided along the northeast shore.

North Shore Buildings

Chateau

The chateau will continue to operate. The building has historical interest, and is used for Maine's state park system. The scope of operations currently offered at the chateau will be expanded. The concessionaire will be encouraged to expand services. The building will be used for various recreational/educational/interpretive programs. A small, permanent interpretive exhibit relating to the lake will be installed. The building may also be used to temporarily house Ice Age exhibits and programs.

The day-to-day interpretive mission of the park will be carried out in the existing nature center for as long as is practical. When the building has outlived its usefulness, that aspect of the park's interpretive mission will be moved to the chateau.

Bathhouse

No change is recommended.

Office

The office will eventually be replaced by a new office/interpretive center. If the chateau is ever removed, the existing office building can be considered for the concession. For the short term, the office and trailer will continue to serve as the North Shore contact point.

(3) Family Camping

All family camping will be at the north end of the park. Eventually all campers would be registered from the office/headquarters in the northwest part of the park. Presently the park has about 45 campsites. Approximately that number of sites will be retained.

The existing South Shore campground will be replaced with a new 200 (approximate) unit campground north of CTH Ol and north of the existing west campground. The two could eventually be linked by an underpass under CTH Ol. (See Figures 4a & 5)

New North Campground

Figure 9 shows the new north campground which will be designed to accommodate a variety of camping units. All the camping areas will be universal, as prescribed in MC 25211. Toilet facilities will be served septic pit toilets. Shower buildings will be provided. There will be no electrical hookups. The campground may be used for group camping.

A shuttle pickup area, children's play area, and an open shelter building for camper's use will be provided in the center of the campground.

The north campground will be implemented in two phases. The first phase will consist of about 150-160 drive-in sites. The second phase will be implemented when the necessary land is acquired and will consist of about 50 units.

The campground will be designed as series of small loops, each accommodating about 25 campsites. The arrangement will give the manager flexibility to close off portions of the campground for rehabilitation or to accommodate large groups.

In conjunction with the north campground, as a future option, 10-15 walk-in campsites could be located along the old ski hill area. They could be clustered into small groupings with small septic pit toilets serving each grouping. There would be no wells at the walk-in sites. Parking would be in the campground.

West Campground

The existing west campground consists of 99 sites. If future board policy allows, it will be designated as primarily a trailer and RV campground. The campground is currently equipped with flush toilet buildings which will remain. The campground has 53 electrified sites, which will remain.
When the North Shore contact is moved out of the basin to the northeast corner of the park, the entrance to the east campground can then be changed to the nature center road only. The entrance on CN DL will be closed to an exit only (except in the winter). This will assure that entrance into the campground is only through a controlled entrance point. A children's play area and a shuttle pickup area will be incorporated into the campground.

East Campground

The existing east campground has 120 sites, 17 of which are electrified. It has flush toilet buildings and a shelter house. It accommodates a variety of camping units, and will remain for the most part unchanged.

Because the east campground is close to the ski trails and has a shelter house, it will be the primary winter campground. A set of pit toilets will be installed. Because of the relatively high cost of installing a winterized water source, campers will use their water at the office or service area. A small children's play area and a shuttle pickup will also be incorporated into the campground.

Extensive Use Areas

The extensive use areas shown on Figure 10 will encompass 3.170 acres and will include all lands not included in the intensive, specialized, or administrative areas.

Outdoor Group Camping

One of the original planning objectives was to find a new location for the outdoor group campground. The present campground is small, it is adjacent to the indoor group camp and it is on the edge of the Red Oak Scientific Area. However, the planning process failed to reveal a better site for the facility. All large open areas suitable for an outdoor group camping facility are several miles from the lake or have other undesirable characteristics. The area west of South Shore Road and south of Skillet Road was considered. It is close to the lake. However, it was rejected for aesthetic reasons. That particular area is very scenic and being so close to two major access roads, a campground there would be unsightly and intrusive. Consequently, it is recognized that no one park can fulfill all recreational needs. For now, Devil's Lake will continue to have a modest outdoor group camp.

Trailside Shelters

As the Ice Age Trail through the park nears completion and begins to get more use, the establishment of trailside shelters will be considered. Like the Kettle Moraine Forests, the shelters would be rustic and would be reservable.

Hiking and Cross Country Ski Trails

Figure 11 shows all the existing and proposed trails in the park. The following existing hiking and ski trails will be unchanged:

West Bluff Trail — Follows the rim of the bluff west of Devil's Lake. It offers spectacular views of the lake and the Baraboo Hills to the north, and the Wisconsin River to the southeast. This trail has been designated for a major interpretive role in the Ice Age Visitor Center.

Tumbled Rocks Trail — Runs along the bottom of the West Bluff, through and east large talus slopes. The trail will be on the ridge of the lake. It has been acclaimed as the most used hiking trail in Wisconsin. An ice age exhibit to interpret the quartzite rock will be located along this trail.

East Bluff Trail — Offers varied topography and many fine views of Baraboo to the north and the lake below.

East Bluff Woods Trail — Roughly paralleling the East Bluff Trail, this trail offers a break through the woods in back of the bluff.

Devil's Doorway Trail — Runs along the rim of the East Bluff where it runs to an east-west direction. The trail runs past an interesting rock formation, Devil's Doorway, and a number of petroglyphs.

Balanced Rock Trail — Climbs the talus slope at the head of the East Bluff.

Potato Sale Trail — Climbs the talus slope west of the Balanced Rock Trail, and exhibits some fine specimens in the rock walls just below the rim. This trail will also serve major interpretive purposes as designated in the Ice Age Visitor Center.

CCC Trail — Climbs the East Bluff above a former Civilian Conservation Corps camp and runs west along the rim to join Devil's Doorway Trail.
Grottoes Trail - Runs along the bottom of the East Bluff just north of the South Shore Road. Offers a cool walk through the woods below the lower bluffs. "Grottos" is in reference to large basins and pits along the base of the bluff in this area.

Stilina Basin Trail - 2.5 mi. (4.0 km) - A glacial lake basin is looped by this trail offering opportunities for interpreting this feature of the Ice Age. The trail roughly follows the edge of the woods surrounding the basin and offers hiking, and skiing for the skier looking for an "easy" rated trail.

The following proposed hiking and ski trails will be added to the trail system: (see figure 11)

Ice Age Trail (primary route) - 5.9 mi. (9.6 km) - This route will be a part of the 1,000 mile Ice Age Trail connecting most of the Ice Age units throughout the State. For approximately two miles this route will run along the end moraine east of Devil's Lake and coincide with the proposed Moraine Trail. The route will serve both hikers and cross-country skiers.

Moraine Trail - (4.3 mi. (22.0 km) - A long distance interpretive trail offering a wide variety of glacial features, it will follow the end moraine of the Green Bay lobe over the Baraboo Hills east of Devil's Lake. This trail was designated for its interpretive potential in the Ice Age Master Plan. The end moraine offers a natural corridor on top of which the trail will traverse. Occasionally the trail will drop off to roughly parallel the moraine, and interpret related glacial evidences such as recessional moraines, rob and seale topography, and proglacial drainage systems. The Moraine Trail will be accessible in different sections with approximately 2/5 of the total length being designated as an interpretive hiking and ski trail, with the remainder primarily being used for interpretive hiking. Extreme care must be taken in laying out and constructing this portion which climbs onto the South Bluffs. Minimum trail dimensions should be maintained and construction and maintenance should all be by hand.

Koshewago Spring Trail - 1 mi. (1.6 km) - Looping up from the southwest end of Devil's Lake, this trail will follow along a small creek which flows from Koshewago Spring and joins with Burne Road.

Stage Coach Trail - 2.5 mi. (4.0 km) - Located in an unglaciated area of the park, this trail roughly parallels an old stage coach route which ran from Baraboo to Sauk City. Providing visitor circulation and connecting other trails with the park entrance and interpretive center, this trail would be designated for hiking purposes.

Other Trails - 5.4 mi. (8.6 km) - Based on the concept of providing loop-type trails and offering SKI touring experiences in variety of difficulties, the remaining proposed trails represent either vital trail link-ups or additional ski touring opportunities. Loop-type trails are desirable for skiing, since one-way travel (the best type of ski trail) necessitates loop configuration.

All back-country trails will be developed to minimum standards. They will be constructed and maintained by hand labor, without the use of motor vehicles. There will be trailside parking at Stilina Basin (about 30 spaces) and at the Boat Launch Area, about 35-40 stalls to be shared with boaters and fishermen.

Bicycle Trails

Bicycle trails will be established in the following locations:

1) Along the north entrance road by striping and signing the entrance road.

2) Along South Shore Drive from the eastern park boundary to the South Shore use area, by constructing a separate parallel gravel path. (Similar to Peninsula State Park).

3) If the railroad grade is abandoned, it will be used as a combination shuttle/bicycle trail.

A separate paved bicycle path now parallels SH 123, linking the park with Baraboo.

Off-Road Vehicle Trails

A north-south pass-through snowmobile trail will be provided. No loop trails inside the park will be provided. The Sauk County Snowmobile Trail is now routed from the south boundary to Burne Road as a temporary pass through route. This route will be designated as the permanent route for off-road vehicles who have accompanied in the park.

No bridle trails will be provided. The shallow soils of Devil's Lake would not be ideal for this activity. In addition, the relatively close-by Governor Dodge and Wildcat Mountain State Parks already provide bridle trails.
e. Administrative Areas

1. Park Headquarters and Ice Age Interpretive Center

A major Ice Age Interpretive center, combined with the park headquarters, will be located in the northeastern part of the park, following the general guideline suggested by the ad hoc committee (see Figure 12). The specific site recommended is alternate one, the area south of the leatherwood subdivision (see Figure 12). The office components will be similar to those at Southern Kettle Moraine. The park management, clerical, law enforcement, and interpretive staff will be headquartered there.

The Ice Age Interpretive components of the building will be of the same magnitude as the Kettle Moraine Ice Age Center. It will include a 150-seat lecture room and an exhibit room. Permanent displays will be furnished by the National Ice Age Project. The emphasis of the displays will be on continental glaciation and the ways in which it shaped the landscape—especially the park area.

All traffic for the North Shore and all camper registration will be handled in the office/visitor center. Adjacent to the center will be a 50-100 car paved parking area. This arrangement will not alter major established traffic patterns. South Shore Road and County Highway D will remain unaffected. The existing North Shore entrance will be closed at the flag, and entrance will be via the new entrance road which will join the existing entrance road about 100 yards down from the present entrance.

A one-mile nature trail loop will be constructed near the office/interpretive center.

2. Service Area

A new service area complex will be constructed just north of its present location, near the existing storage building. A new large metal building similar to the one at Southern Kettle Moraine will be installed. A paved, fenced service yard will be constructed as well. A vehicle storage building will be included. While the existing site is not centrally located, its location is close to the North Shore highway area, and the campgrounds which have a heavy service demand. The present shop and carpenter shop will be retained and incorporated into the service complex.

f. Interpretive Facilities

Devil's Lake has two interpretive missions to carry out. It must provide for the interpretation of the Ice Age story and it must provide for the interpretation of the day-to-day events of the park. These two missions must be integrated.

Ice Age Interpretive Center

An Ice Age Interpretive Center will be combined with the park's administrative office and headquarters. The scope and purpose the interpretive center will be similar to the Ice Age Interpretive Center at Southern Kettle Moraine. The center will include a 1200 square foot exhibit room. Interpretive displays pertaining to the Ice Age story and how glaciation shaped the landscape of the Devil's Lake area will be shown there. A 90-seat lecture room will be provided where the Ice Age film and other audio-visual programs can be presented. The park's interpretive staff will be headquartered at the visitor center. Parking for about 50-100 cars will be provided.

Nature Center

When the Ice Age visitor center is completed, some of the functions of the existing nature center will be replaced. The ice age center will focus on the overall Ice Age story and the interpretation of micro-scale phenomena. The existing nature center will focus on macro-scale interpretation. It will be retained as a summer only facility, serving the family campers, and will concentrate on interpreting the day-to-day natural events of the park and park history.

This aspect of the park's interpretive mission will be carried out in the existing nature center for the remaining life of the building. When the building is in need of major repairs or when maintenance costs get too high, the program will be moved to the chateau.

The Chateau

Prior to the eventual construction of the Ice Age visitor center, several Ice Age exhibits could be located in the chateau. It is possible that funding for the interior ice age exhibits may become available before a visitor center is completed. Consequently, the option of having the exhibits constructed at least some of them and installed in the chateau should
be explored. Also, the possibility of temporarily showing the Ice Age film and other audio-visual programs in the chateau should be seriously considered. Both actions would require some remodeling of the chateau.

The Living History Farm

The possibilities of establishing a "living history farm" should be explored further. Some of the objectives of such a farm would be to:

1. Show some historic methods of farming.
2. Show some alternative methods of farming that could be employed today.
3. Show the utilization of solar and wind power.
4. Show wildlife conservation practices.
5. Focus on the human history of Devil's Lake and Baraboo region.

A recommended site is the former Arlie Johnson Farm, just across DL from Stineske Basin. This is a project that should be undertaken only if funding and staffing is available from outside sources, such as the Historical Society.

Outdoor Ice Age Wayside Exhibits

As a part of the overall Ice Age Interpretive mission of the park, outdoor wayside exhibits will be located at key locations within the park. Each of the wayside exhibits will tell a particular story relating to the glacial shaping of the landscape. The waysides will consist of a graphic panel, designed and produced by the National Park Service. Panels will be mounted in a concrete/masonry base that the Department will construct. Each of the exhibits will require varying landscape treatments. Typically, the interpretive panels will be about 2 feet X 3 feet, mounted at waist level so visitors can see over them.

Initially four sites have been selected for the outdoor exhibits:

1. West Bluff - Prospect Point. This is a key spot with dramatic views of the lake, bluffs, moraines, and the preglacial valley. It is on a heavily used trail.
2. South Shore day-use area.
3. North Shore day-use area.
4. Along the Tumbled Rocks Trail.

2. Property Management

a. Use Limits

The total use of the major use areas of the park at any one point in time will be controlled by the number of parking stalls and camping spaces provided. Table 2 shows the proposed design capacity and visitor use for the park. The table does not show a grand total because many uses overlap. Many people come to the park just to hike for instance, but many others hike in addition to other activities such as camping and picnicking. The expected annual use of the park will be about the same as now about 1 million. The estimated maximum level of use of the two picnicking/beach areas is now at about 5,325 people at any point in time. Because of design standards, the design capacity of this plan is 4,350 people at any point in time for the two day-use areas. This means a point in time reduction of about 1,000 people. Allowing for a turnover rate of 2 visits per day, 2,000 people will be turned away on each of 10 busy days each year, or about 20,000 people fewer will use the North and South Shores each year. The Ice Age visitor center is expected to host 60,000 visitors each year. If one-third of that, or 30,000 come only to use the visitor center, the net gain in the current park attendance would be about 10,000 visitors per year.
### Table 2

<table>
<thead>
<tr>
<th>Visitor Use</th>
<th>Existing Capacity</th>
<th>Designed Capacity</th>
<th>Maximum Use During the 100-Day Season</th>
<th>Expected Annual Use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Existing Level of Use at a Point in Time</td>
<td>Designed Level of Use at a Point in Time</td>
<td>Turn Over Rate</td>
<td>Capacity Applicable</td>
</tr>
<tr>
<td><strong>Day Use</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Shore</td>
<td>1,275</td>
<td>3,750</td>
<td>2</td>
<td>4,900</td>
</tr>
<tr>
<td>North Shore</td>
<td>1,575</td>
<td>5,750</td>
<td>2</td>
<td>3,850</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>2,850</strong></td>
<td><strong>9,500</strong></td>
<td><strong>2</strong></td>
<td><strong>8,750</strong></td>
</tr>
<tr>
<td><strong>Camping</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South</td>
<td>928</td>
<td>925</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>East</td>
<td>480</td>
<td>480</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>West</td>
<td>396</td>
<td>396</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>North (a)</strong></td>
<td><strong>-</strong></td>
<td><strong>-</strong></td>
<td></td>
<td><strong>1</strong></td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>1,704</strong></td>
<td><strong>1,704</strong></td>
<td></td>
<td><strong>1,704</strong></td>
</tr>
<tr>
<td><strong>Hiking</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cross-Country Skiing</strong></td>
<td><strong>70,000</strong></td>
<td><strong>70,000</strong></td>
<td></td>
<td><strong>70,000</strong></td>
</tr>
<tr>
<td><strong>Snowmobiling</strong></td>
<td><strong>200</strong></td>
<td><strong>200</strong></td>
<td></td>
<td><strong>200</strong></td>
</tr>
<tr>
<td><strong>Boating</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Scuba Diving</strong></td>
<td><strong>2,680</strong></td>
<td><strong>2,680</strong></td>
<td></td>
<td><strong>2,680</strong></td>
</tr>
<tr>
<td><strong>Fishing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Rock Climbing</strong></td>
<td><strong>3,410</strong></td>
<td><strong>3,410</strong></td>
<td></td>
<td><strong>3,410</strong></td>
</tr>
<tr>
<td><strong>Low Age Visitor Center Visits</strong></td>
<td><strong>80,000</strong></td>
<td><strong>80,000</strong></td>
<td></td>
<td><strong>80,000</strong></td>
</tr>
<tr>
<td><strong>Nature Center Visits</strong></td>
<td><strong>16,000</strong></td>
<td><strong>16,000</strong></td>
<td></td>
<td><strong>16,000</strong></td>
</tr>
</tbody>
</table>

*Based on NPS and California Standards*

**Day Use**: **70,000 people** = 200 people/100 ft. of beach, including non-swimming segments. This is a typical state park design capacity. **3,000 people** = 300 people/100 ft. of beach.

The expected annual use for the two shores was arrived at in the following manner:

1. **During the 100-day use season:**
   a. 30 weekday days x 3,700 people (designed daily capacity) = 261,000 people
   b. 70 weekend days x 3,700 people (1/2 weekend use) = 261,000 people

2. **During the remaining 260 days, by visitation records:**
   a. 200 people

**Total expected use**: **705,000 people**

- **Vegetation**

One of the stated objectives for Devil's Lake is to "wherever possible, return the flora and fauna of the park to pre-settlement conditions." It is not an objective for Devil's Lake State Park to maximize timber production. Consistent with the Wild Resources Policy, timber harvest and habitat manipulation will not be carried out in areas designated as "natural" areas, or scientific areas.

The predominant vegetative cover in most of the park is oak which is a deciduous type. Without management, those portions of this type which are on better sites such as slopes or northern and eastern exposures, will eventually succeed to more shade tolerant species such as sugar maple, beech, red maple, red oak, slippery elm, white ash, hickory, etc. Because of site limitations, those portions of the oak type which are found on poorer sites such as ridge tops or southern and western exposures, will likely remain as they now are as long as current climatic conditions exist. See Appendix G for a description of the Uniform Land Use Classification System and the corresponding management guidelines.

The areas designated as "Excessive Recreation Area, open areas management zone 1, 2 or 3" on Figure 10 will be kept "open" as they are now. This will allow for better viewing of glacial features, and will promote diversity within the park. Where possible, management to achieve this purpose should still allow public access and should not disturb the soil. New cropping is not a preferred method. Fire, periodic mowing, and grazing will all be considered. Aspens occurring in the "Excessive Recreation Area" will be managed to continue aspen regeneration. This will provide winter and spring food sources for many species of wildlife and scenic diversity within the park.
The wetlands in the northeast segment of the park will be maintained as wetlands. This may require blocking of drain tiles and leveling ditches.

c. Wildlife

Wildlife production and harvest is not one of the objectives for Devil’s Lake State Park. Consequently, the park will not be managed to maximize wildlife habitat or wildlife populations.

Where consistent with the overall objectives for the park, some measures will be taken to promote wildlife habitat. These measures will be viewed as an added benefit rather than as a primary objective. They will include maintaining the open areas shown in Figure 10. The edges of the openings will be kept in grass. Individual open spaces will not be kept in a uniform state of mowing or clearing. Diversity within each area will be promoted. Also select aspen stands will be managed as such in perpetuity. Some of the open areas on the periphery of the park could be made available to the local game manager to develop demonstration projects under the supervision of the park manager.

Presently deer hunting is allowed during the firearms and late bow season in some areas of the park. The Sauk County deer herd is the Town of Saukville which includes the South bluff of the park. Consistently the 4th largest harvest for the county. One of the reasons the herd is in such good condition is because the park offers excellent cover for deer. Deer hunting will continue as long as it is practical for game management reasons and does not present a hazard to other park users. Small game hunting in state parks is not authorized by statute.

d. Water and Fish

Devil’s Lake is the only water body within the park that supports a fishery. It is a soft water lake, supporting a warm water fishery of panfish, bass, and northern pike. Walleye and rainbow trout are stocked annually. Management currently emphasizes the perpetuation of the warm water fishery. Currently about 10,000 rainbow trout and 5,000 walleye are stocked annually. The stocking program at Devil’s Lake, which is on a set and take basis, has become an established tradition. Stocking provides recreational opportunities that the fishing public now expects and demands. As the Department’s overall philosophy on stocking shifts from put-and-take to put-grow-and-take, the fish management of Devil’s Lake should also reflect that change.

e. Fire Control

Devil’s Lake and its immediate area is on the border of the Poucette and Spring Green fire control areas. It is also some distance south of the Wisconsin Dells sub-area in the North Central District. Appendix A shows the regular compliment at these stations.

3. Land Acquisition

In May 1974, the Natural Resources Board approved an acquisition goal of 9,810 acres for Devil’s Lake Park. To date, the Department has acquired 7,395.86 acres, and 2,414.08 acres remain to be acquired.

<table>
<thead>
<tr>
<th>Acreage within the Boundary</th>
<th>Existing Acres</th>
<th>Proposed Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fee Acquisition Goal</td>
<td>9,810 acres</td>
<td>9,810 acres</td>
</tr>
<tr>
<td>Scenic Easement Acquisition Goal</td>
<td>40 acres</td>
<td>40 acres</td>
</tr>
<tr>
<td>Acreage controlled within the boundary in Fee</td>
<td>7,395.86 acres</td>
<td>9,810 acres</td>
</tr>
</tbody>
</table>

The acquisition cost of the remaining acres is estimated at about $2-3 million dollars. Figure 13 shows the park ownership and the proposed boundary changes.

The boundary changes are recommended as a part of this plan. They are:

1) The addition of an 80-acre parcel adjoining the east boundary of the park in section 22.
2) The addition of an 80-acre parcel adjoining the east boundary of the park in section 22.
3) The property offers outstanding scenic qualities. The land provides a spectacular view to the south overlooking Lake Wisconsin and the Wiscasset River valley. This property could serve as an excellent viewpoint, if properly developed. The State Park development may never come into State ownership. This property could serve the same purpose very well.
b. Geological significance. The terminal moraine parallels the north boundary immediately to the north. From the property one has an opportunity for good observation of the diverted Wisconsin River, upland terrain to the southwest, the moraine, and the Baraboo Valley. Access to these observation points may be better than the planned overlook site.

c. This subject parcel connects Devil’s Lake State Park and Parfrey’s Glen Scientific Area. This is significant for purposes of the Ice Age Trail to have a permanent site.

d. Preservation. The subject property already has a radio tower easement on it. The property immediately to the north is a huge gravel quarry. Lands to the northeast are rapidly being subdivided for rural houses. Devil’s Head Resort Complex is 3/4 mile to the east.

2) The addition of a 40-acre scenic easement north of the north campground to protect the view from the campground.

These additions will increase the total boundary to 9,930 acres, but the acquisition goal will remain at 9,810.

4. General Development Schedule (costs shown via preliminary January ’86)

<table>
<thead>
<tr>
<th>Phase I</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N. Campground and Amphitheater (Part A)</td>
<td>$ 905,000</td>
</tr>
<tr>
<td>Ice Age Wayside Exhibits (Part A)</td>
<td>15,000</td>
</tr>
<tr>
<td>Winterline East Campground</td>
<td>3,300</td>
</tr>
<tr>
<td>New Toilets for Indoor Group Camp</td>
<td>50,000</td>
</tr>
<tr>
<td>Pedestrian Walkway along South Shore Road</td>
<td>143,200</td>
</tr>
<tr>
<td></td>
<td>1,120,500</td>
</tr>
<tr>
<td>Phase II</td>
<td></td>
</tr>
<tr>
<td>South Shore Redevelopment</td>
<td>1,100,500</td>
</tr>
<tr>
<td>Boat Launch</td>
<td>85,900</td>
</tr>
<tr>
<td></td>
<td>1,186,400</td>
</tr>
<tr>
<td>Phase III</td>
<td></td>
</tr>
<tr>
<td>Office/Ice Age Visitor Center (Part A)</td>
<td>930,200</td>
</tr>
<tr>
<td>North Shore Redevelopment</td>
<td>202,000</td>
</tr>
<tr>
<td></td>
<td>1,132,200</td>
</tr>
<tr>
<td>Phase IV</td>
<td></td>
</tr>
<tr>
<td>Service Area Development</td>
<td>551,000</td>
</tr>
<tr>
<td>North Campground (Part B)</td>
<td>551,000</td>
</tr>
<tr>
<td></td>
<td>1,142,000</td>
</tr>
<tr>
<td>Phase V</td>
<td></td>
</tr>
<tr>
<td>Complete Trail Development</td>
<td>26,400</td>
</tr>
<tr>
<td>Ice Age Wayside Exhibits (Part B) (25% funded by MPS)</td>
<td>102,000</td>
</tr>
<tr>
<td>Trailside Shelters</td>
<td>45,000</td>
</tr>
<tr>
<td></td>
<td>173,400</td>
</tr>
</tbody>
</table>

Future

Possible long-term future development items:

a. Shuttle System
b. West Campground (remove existing road to CTH D-L or install pressure activated exit gate)
c. User improvements (if found necessary for the system’s increased use during winter seasons)
d. Employee Housing
e. Living History Farm
5. Development Costs

### A. PART A OF NEW CAMPGROUND DEVELOPMENT

<table>
<thead>
<tr>
<th>Development Costs (Calculated Jan. 1980)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Contract Costs</strong></td>
</tr>
<tr>
<td>a. Building Costs</td>
</tr>
<tr>
<td>b. Utility Extension Costs</td>
</tr>
<tr>
<td>c. Site Development Costs</td>
</tr>
<tr>
<td>i) Roads and Parking</td>
</tr>
<tr>
<td>ii) Utility Development (160 sites)</td>
</tr>
<tr>
<td>d) Subtotal Contract Construction Costs</td>
</tr>
<tr>
<td>e. Design and Supervision Costs (6-8$)</td>
</tr>
<tr>
<td>f. Contingency Costs (x 75)</td>
</tr>
<tr>
<td>g. Movable Equipment Costs (6$ x 75)</td>
</tr>
<tr>
<td>h) Force Account and Purchase Order Costs</td>
</tr>
<tr>
<td>i. Miscellaneous</td>
</tr>
<tr>
<td>j) Total Preliminary Estimate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>2. Force Account and Purchase Order Costs</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Asphalt/Steel</td>
</tr>
<tr>
<td>b. Miscellaneous</td>
</tr>
<tr>
<td>c. Total Preliminary Estimate Phase I</td>
</tr>
</tbody>
</table>

### B. PHASE I - ICE AGE MAYSIDE EXHIBITS

<table>
<thead>
<tr>
<th>Force Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wayside Exhibit Development (The panels will be funded by N.P.S.) 15,000</td>
</tr>
</tbody>
</table>

### C. WINTERIZE EAST CAMPGROUND

<table>
<thead>
<tr>
<th>Contract Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Building Costs</td>
</tr>
<tr>
<td>b. Utility Extension Costs (Note: campers will use water available at office)</td>
</tr>
<tr>
<td>c. Site Development Costs</td>
</tr>
<tr>
<td>i) Roads, parking, and miscellaneous</td>
</tr>
<tr>
<td>ii) Recreational Development</td>
</tr>
<tr>
<td>iii) Landscaping</td>
</tr>
<tr>
<td>d. Subtotal Contract Construction Costs</td>
</tr>
<tr>
<td>e. Design and Supervision Costs (6-8$)</td>
</tr>
<tr>
<td>f. Contingency Costs (x 75)</td>
</tr>
<tr>
<td>g. Movable Equipment Costs (6$ x 75)</td>
</tr>
<tr>
<td>h. Special Equipment</td>
</tr>
<tr>
<td>i. Total Preliminary Estimate</td>
</tr>
</tbody>
</table>

### D. SOUTH SHORE REDEVELOPMENT

<table>
<thead>
<tr>
<th>Contract Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Building Costs</td>
</tr>
<tr>
<td>b. Utility Extension Costs</td>
</tr>
<tr>
<td>c. Site Development Costs</td>
</tr>
<tr>
<td>i) Roads, parking, and miscellaneous</td>
</tr>
<tr>
<td>ii) Recreational Development</td>
</tr>
<tr>
<td>iii) Landscaping</td>
</tr>
<tr>
<td>d. Subtotal Contract Construction Costs</td>
</tr>
<tr>
<td>e. Design and Supervision Costs (6-8$)</td>
</tr>
<tr>
<td>f. Contingency Costs (x 75)</td>
</tr>
<tr>
<td>g. Movable Equipment Costs (6$ x 75)</td>
</tr>
<tr>
<td>h. Special Equipment</td>
</tr>
<tr>
<td>i. Total Preliminary Estimate</td>
</tr>
</tbody>
</table>

### E. BOAT LAUNCH

<table>
<thead>
<tr>
<th>Contract Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Site Development Costs (Roads, parking, trailhead, &amp; landscaping)</td>
</tr>
<tr>
<td>b. Pit Toilets</td>
</tr>
<tr>
<td>c. Design and Supervision Costs (6-8$)</td>
</tr>
<tr>
<td>d. Contingency Costs (x 75)</td>
</tr>
<tr>
<td>e. Movable Equipment Costs (6$ x 75)</td>
</tr>
<tr>
<td>f. Special Equipment</td>
</tr>
<tr>
<td>g. Total Preliminary Estimate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Force Account and Purchase Order Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Asphalt/Steel</td>
</tr>
<tr>
<td>b. Miscellaneous</td>
</tr>
<tr>
<td>c. Total Preliminary Estimate</td>
</tr>
<tr>
<td>d. Boat Launch Estimate</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Subtotal</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,100,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Preliminary Estimate South Shore</th>
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</thead>
<tbody>
<tr>
<td>$1,100,000</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Preliminary Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>$2,700,000</td>
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</tbody>
</table>
**F. INDOOR GROUP CAMP**

1. New Toilets

**G. PEDESTRIAN WALKWAY ALONG SOUTH SHORE ROAD**

1. Contract Costs
   a. Site Development Costs
   b. Design and Supervision Costs (x 6-8)
   c. Contingency Costs (x 70%)
   **TOTAL PRELIMINARY ESTIMATE**

**H. OFFICE INTREPID CENTER AND CONTACT**

1. Contract Costs
   a. Building costs (7800 sqft)
   b. Utility Extension Costs
      1) Electric
      2) Water
      3) Sewer
   c. Site Development Costs
      1) Roads
      2) Parking 60 car
      3) Landscaping
   d. Design and Supervision Costs (x 6-8)
   e. Contingency Costs (75)
   f. Movable Equipment Costs (60% of Building)
   g. Special Equipment Costs
   **TOTAL PRELIMINARY ESTIMATE PART A**

**I. NORTH SHORE REDEVELOPMENT**

1. Contract Costs
   a. Utility Redevelopment
   b. Site Development
      1) Roads
      2) Parking
      3) Bituminous curbing
      4) Landscaping
   c. Design and Supervision Costs (x 6-8)
   d. Contingency Costs (x 75)
   2. Force Account and Purchase Order Costs-Miscellaneous
   **TOTAL PRELIMINARY ESTIMATE**

**J. SERVICE AREA**

1. Contract Costs
   a. Building Costs
   b. Utility Extension Costs
   c. Site Development Costs
   **TOTAL CONTRACT CONSTRUCTION COSTS**
   d. Design and Supervision Costs (x 6-8)
   e. Contingency Costs (x 75)
   f. Movable Equipment Costs (x 65 Buildings)
   g. Special Equipment
   2. Force Account and Purchase Order Costs
   **TOTAL PRELIMINARY ESTIMATE**

**K. NEW CAMPGROUNDE DEVELOPMENT - PART B**

1. Contract Costs
   a. Building Costs
   b. Utility Extension Costs
   c. Site Development Costs
      1) Roads and Parking
      2) Underpass System
      3) Campsite Development (52 sites)
   d. Design and Supervision Costs (x 6-8)
   e. Contingency Costs (x 75)
   f. Movable Equipment Costs (x 65 Buildings)
   g. Special Equipment

**TOTAL PRELIMINARY ESTIMATE**
2. Force Account and Purchase Order-Scellaneous 12,500
TOTAL PRELIMINARY ESTIMATE 200 PAGE $92,710

L. TRAIL DEVELOPMENT
1. Force Account
   a. 22 Miles Hiking Trails ¢1200/mile 26,400
   b. 3 Trailside Shelters 45,000
TOTAL PRELIMINARY ESTIMATE $71,400

N. ICE AGE WAYSIDE EXHIBITS PAR C
1. Force Account
   a. Wayside Exhibit Development (25% is funded by N.R.C.) 100,000
TOTAL PRELIMINARY ESTIMATE $100,000

6. OTHER CONSIDERATIONS
   a. Ice Age Status

Devil's Lake is one of nine units of the Ice Age National Scientific Reserve. As such it enjoys both state and national park designations. By agreement between the State of Wisconsin and the National Park Service, all Ice Age related development will be partially funded by the National Park Service. So far, this funding arrangement, which is specified at 1/4 of the development cost, has been in the form of the interpretive displays and exhibits. Operations cost for the park are also cost-shared by the National Park Service. Also by agreement, the National Park Service must review and approve any development plans for the park. (See appendices 2 and 4, The Ice Age Legislation and Cooperative Agreement).

b. The Ice Age Trail

In August of 1979, the Natural Resources Board voted to assume some on-going responsibilities for the Ice Age Trail, a 1,000 mile hiking trail in Wisconsin. The trail generally follows the terminal moraine across the state, and links together most of the Ice Age units. Part of that trail is a loop segment in Devil's Lake State Park. By agreement between the Department, the Ice Age Park and Trail Foundation, and the Ice Age Council, the Department will have the lead in signing and maintaining this segment. In addition, the Park Superintendent will serve as a Department liaison to the local Ice Age Council chapter, and will lend them some assistance in their local endeavors. (See Appendix L).

c. Zoning

St Croix County has enacted a county-wide zoning ordinance. An off-park block straddling I-94 between the campgrounds and Steilacoom Basin is zoned "Recreational." The entire remainder of the park is zoned "Agricultural." Park developments are compatible uses.

d. Endangered and Threatened Species

All areas proposed for development will be examined for the presence of endangered and threatened wild animals and wild plants. If listed species are found, development will be suspended until the District Endangered and Nongame Species Coordinator is consulted, the site evaluated, and appropriate protective measures taken.
C. FIGURES
A. BACKGROUND INFORMATION

1. History of Property Creation

The Devil's Lake region has been a popular tourist area since the mid-1800s. By 1871, the Chicago and Northwestern Railroad Company had completed a railroad which extended through the present-day park and made the park relatively easy to reach. It was estimated that 20,000 tourists visited the area in the 1871 season. At one time, much of the northwestern and southern shore of Devil's Lake was dotted with seasonal cottages. Many remained along the lake well into the 1970s, however, fading.

Wisconsin's first State Park Board of 1907 was directed by the Governor to make recommendations regarding the acquisition of any new parks. At that time Interstate State Park was Wisconsin's only state park. The Board commissioned John Nolen, a Boston landscape architect to make recommendations in that regard. In his report to the Board, Nolen identified four major areas that he recommended for state park acquisition. They included: the Dells of the Wisconsin River, Peninsula State Park, Wisconsin State Park, and Devil's Lake State Park. Nolen described Devil's Lake as follows:

"Devil's Lake in Sauk County is, as everyone knows, a most accessible and popular resort with a great wild forest around it, and sufficiently in size for State Park purposes. The climate in summer is healthful, if not invigorating, in beauty—bearing the names of the railroad, the quarries, and the scar of Comanchee super-cottages—Devil's Lake meets all the requirements of a State Park. The lake itself, half a mile wide and more than a mile in length, is a gem, a characteristic example of Wisconsin's natural possessions. The bluffs rise impressively from the shores of the lake and afford broad and beautiful views of the Baraboo valley, the refreshing and soul-reviving value of which cannot easily be over-estimated. The romantic glee, the rock-acquiescent and wooded fowes, the secluded coves in little valleys, all make their contribution to the pleasure of the visitor. Devil's Lake possesses, too, scientific interest—geological, archeological, botanical—that can scarcely be duplicated in Wisconsin. Indeed, no long description of Devil's Lake is necessary for it is well known now evidently fifteen it is to and most of the bluffs, with their overhanging rock, can be secured at reasonable rates and with little difficulty."

The total area mapped out by the first State Park Commission as representing the property desirable for the State to acquire was 5,500 acres, which has been roughly estimated could not be secured for less than $150,000. Of this area, 5,000 acres could be held for about $100,000, and the other 500 acres could cost approximately $50,000. Some of this it was believed necessary to acquire, but a large portion is not dispensable. The present situation of Devil's Lake, as at the Dells, cannot fail to impress the members of the State Legislature with the necessity for early action in the acquisition of lands for State Parks.

The Board concurred and all but the Dells became state parks. Devil's Lake became a state park in 1911.

In October, 1914 the Ice Age Act (P.L. 65-657) designated portions of Devil's Lake State Park for inclusion in the newly created Ice Age National Scientific Reserve. As published in the Federal Register, May 29, 1971, the Devil's Lake State Park Ice Age Unit boundary contained 8,840 acres. In subsequent months, work was initiated by MPS and SAR on a preliminary master plan for the IANR which was eventually published in July 1978. In 1979, the boundary of Devil's Lake State Park was increased from 8,800-13 acres to 8,840 acres by the Wisconsin Natural Resources Board. Further study indicated that the boundary of the Devil's Lake Ice Age Unit should be increased to 1,970 acres to include more geologic features as is now described in the proposed master plan, and in May 1974 the Natural Resources Board approved the present 9,810 acre goal. As a result, the existing state park boundary totally encompasses the Ice Age boundary.

2. Administrative Actions

a. Motor Boat Ban

In 1972, the Natural Resources Board authorized the Department to prohibit motor boats from operating on Devil's Lake. Small electric motors, shops, canoes, and sailboats are still allowed.

b. Ice Age Cooperative Agreement

Because the park is a unit of the Ice Age National Scientific Reserve, it shares Joint National Park and State Park status. Up to one-half of the annual operations costs for the park are paid by the National Park Service. The National Golden Eagle and Golden Age Passports are honored at Devil's Lake.
3. Current Use and Management

Devil's Lake is in many respects Wisconsin's premier state park. It is the largest, 3,680 acres in the boundary, the most heavily used (1,1 million visitors in 1980) and in the opinion of many, the most beautiful. The park has always been managed to preserve the beauty of the area, and to accommodate a large number of visitors.

Devil's Lake State Park is currently authorized thirteen permanent positions. The park utilizes 5 seasonal employees and about 35 LTE employees during the summer. All aspects of the park operations and management are under the direction of the park manager.

a. Current recreational uses of the park include but are not limited to:

- Family Camping
- Outdoor Group Camping
- Indoor Group Camping
- Picnicking
- Outdoor Games
- Swimming
- Picnicking
- Nature Study
- Canoeing
- Boating
- Sail Boating
- Scuba Diving
- Fishing
- Rock Climbing
- Hiking
- Cross-country skiing
- Snowmobiling
- Deer Hunting

b. Uses of lands within the park boundary but not acquired include:

- Farming
- Permanent Housing
- Seasonal Housing
- Resort
- Gravel Quarrying
- Timber Production
- Church
- Hunting

B. RESOURCE CAPABILITIES AND INVENTORY

1. Geology

Devil's Lake State Park is situated in the range of hills known as the Baraboo Hills or the Baraboo Range, which are composed of Precambrian quartzite, more than one billion years old. The Baraboo Hills form a cone-shaped bowl around the Baraboo Valley, through which the Baraboo River flows. Minimum elevation of the hills ranges from 200 to 600 feet above the level of the Wisconsin River Valley. Cambrian and Ordovician sedimentary rocks overlie the quartzite in places (Black, 1974).

Sand that formed the quartzite of the Baraboo Hills was deposited by rivers as they flowed into yellow seas that had inundated this area more than a billion years ago. As the sand accumulated, the increasing pressure resulted in the formation of sandstone, and later quartzite. After the seas withdrew, the quartzite was folded upwards to form the North Range and the South Range of the Baraboo Hills, creating a valley between them. Quartzite is located below the valley, but only in the two ranges is the quartzite located above the ground today (Black, 1974).

Beginning 500 million years ago and lasting for perhaps 100 million years, the area was subjected to various advances and retreats of ancient seas. The result of these repeated submergences was the accumulation of sandy and limy materials on the sea basin (now top of the quartzite). West layers of sandstone and limestone buried the quartzite hills. After the final retreat of the ancient seas, the area was exposed to forces of erosion. The Wisconsin River and its tributaries are believed to have removed most of the sedimentary rock from the Baraboo Hills, resulting in the exposure of the more resistant quartzite. At that time, the Wisconsin River flowed through the gorge where present-day Devil's Lake is located (Black, 1974).
When the Wisconsinan glacier advanced into the area 10 to 15 thousand years ago, it deposited debris at the north and south ends of the present-day lake basin, damming the ends and diverting the Wisconsin River eastward (around the end of the Baraboo Range, rather than through it as before). Devil's Lake is thus located between two glacial "plugs" in an abandoned river valley. A few miles south of the lake, within the park, the alignment of the ice sheet occurred and can be traced from one end of the park to the other. The moraine in the park is regarded as unusual because of its uniformity on flat surfaee (15-50 feet high and 100-200 feet wide) and its symmetry on hillside. Short and broken recluvial moraines in the form of small scattered hills is located in the park but are not conspicuous features (Black, 1927).

Solvents remaining from preglacial times (sands located in front of the glacial) are found in several areas within the park. The remains of these lakes have been designated as Rock Lake located in the southern portion of Section 9, Shalk Lake located in Section 5, and OHT Lake located in Section 6. At one time, these lakes were probably joined, and drained into glacial Devil's Lake. Another unnamed preglacial lake was formed in Section 30, high on the south bluff (see figure 14; Black, 1927).

In Sections 9 and 16 (see figure 17), the low sandy area, known as Hanson's Marsh is the remnant of a preglacial lake that was formed as the glacial receded. It is an important site in that a lake survived there for many centuries and consequently took down lacustrine sediments. Samples of the various one-year's sediment have been counted to be about 600 years of time. Pollen samples taken from the various layers revealed the post-glacial climatic changes as reflected in the transition of the local vegetation from boreal to deciduous forest (Black, 1927).

The topography today in Devil's Lake State Park is mostly a rolling upland at an elevation of nearly 1,400 feet which is cut by a steep-walled V-shaped gorge whose summit is generally 200 feet above lake level. The north trending section of the gorge is occupied by Devil's Lake. Three groupings of bluffs surround the west, south, and east edges of the lake (Black, 1927).

3. Fish and Wildlife

Fish

a. Three groupings of bluffs surround the west, south, and east edges of the lake (Black, 1927).

b. The diversity of vegetation in Devil's Lake State Park has enabled a variety of wildlife habitats and communities to develop. Over growth of the about 70 species of weeds occurring in the states have taken on the glacial moraine ranging over the Devil's Lake area. Good potential wildlife habitat occurs in many of the low-lying areas of the park including both wetland and upland regions. Relatively few remaining species present a larger and spring food source for many species. The upland forested portions of the park offer prime habitat for grey squirrels and are also utilized heavily by the large populations of white-tailed deer. Other non-mammal populations include elk and muskrat common to wetland areas but several species of small rodents.

An estimated 80 species of birds nest in the park while numerous other species migrate through the park. Several species are year-round residents. Common year-round residents include rough-legged hawks, several species of owls and woodpeckers, bluejays, cardinals, and white-breasted nuthatches. An uncommon resident to Wisconsin in the park is the ruffed grouse. This bird has been observed nesting over the upland portions of the park. The ruffed grouse is the only game bird species which occurs in any number in the park. Several species of waterfowl including wood duck and blue-winged teal, nest in the wetland areas.

b. Fish and Wildlife
Several species of turtles, frogs, salamanders, and snakes are located in various portions of the park. Populations of the timber rattlesnake are located in the rocky areas near the Siuslaw, however, they are not abundant in the park.

Except for the pickarel frog there are no records of nesting or resident threatened or endangered animal species within the park. Several endangered birds, including bald eagle and osprey, occasionally migrate through the park.

Appendix A lists the wildlife of the park in more detail.

4. Vegetation

Due to the varied topography and soils, Devil's Lake State Park contains many diversified plant communities. Approximately one-third of the species of the woody plants found in Wisconsin are represented in the Devil's Lake State Park. The vegetation of the park has been classified into groups corresponding to the vegetation map shown in Figure 10.

White Birch (175 acres)

Found in scattered small stands throughout the park, white birch stands are typically located on disturbed sites or cool northernly facing slopes. The overstory is often nearly pure white birch and the groundstory is typically composed of broken fern, clubmoss species, Pennsylvania sedge, Canada mayflower, and white understory.

 Aspen (195 acres)

The aspen cover type is not a major community within the park. It is found primarily on disturbed or dry, stony sites. Its composition is similar to the white birch communities, but lacking aspen and balsam fir aspen predominates.

Bottomland Hardwood (120 acres)

Found in low, poorly-drained areas, the bottomland hardwood community is dominated by American elm, cottonwood, black willow, river birch, button bush, and winterberry. Ground cover includes several sedge species, obedient plant, wool sedge, and cut-leaf coneflower.

Conifer Plantations (90 acres)

Conifer plantations within the park are mostly white pine, but some red pine and Scotch pine and Norway spruce have also been introduced. More native plantations (plantations located near the existing native forest) have a variety of native understory species, whereas the less nature plantations have relatively few understory plants. An exception to this is the orchid, Liripilid, which is abundant in younger plantations.

Lowland Brush (50 acres)

Found in low, poorly-drained areas, the lowland brush community is typified by tall aspen, several species of willow, red osier dogwood, monard sweet, steeple bush, narrow sawtooth fern, marsh sweet, and rough leaved goldenrod. This is an uncommon community within the park.

Northern Hardwoods (270 acres)

These hardwoods cover type, with northern elements, is dominated by such plant species as sugar maple, basswood, slippery elm, butternut hickory, and red oak. Most of the vegetation in the park has been disturbed. Northern hardwoods are found in scattered remnants only, where the soils and slopes afford more mesic and cooler conditions. Other characteristic woody species in the cover type include yellow birch, black hawthorn, mountain maple, red elder, and black chokecherry. Ground cover is typically composed of Solomon's-seed wood fern, nodding trillium, wild bergamot, Adam and Eve orchid, white and red baneberry, toothwort, blue cohosh, yellow violet, Short's aster, and zig-zag goldenrod.

Oak (Southern Dry Hardwoods) (5,310 acres)

Oak or southern dry hardwoods cover type, the most common community in the park, is found on drier sites than where the northern hardwoods are located. Major species include several species of oak, shagbark hickory, red maple, ironwood, white ash, common hazel, and gray dogwood. Ground cover typically includes lady fern, rattlesnake fern, wild flower, hog peanut, poke milkweed, wild sarsaparilla, enchanter's nightshade, squaw-root, tick trefoil, asters, and elm-leaved goldenrod.
The popularity of Devil's Lake as a recreational area began with the coming of the railroads in 1871. Twenty thousand people visited the lake in 1872. A large hotel, the Minski-Haeden (later Clift Lodge) house was built on the north end of the lake in 1875. The resort also operated a steamer on the lake. Numerous cottages and several hotels were built on the South Shore; however, at this time, there are no buildings along the lakeshore or on the immediate shoreline. The areas designated as natural areas are under the control of the Wisconsin Department of Natural Resources.

The archaelogical survey conducted in the area of the north campground. There were no significant findings. Further archaelogical surveys will be undertaken before any new development is undertaken.

Land Use Potential

Devil's Lake State Park contains about 5,892 acres that are proposed for natural area designation. The South Bluff area to the south boundary, the West Bluff area to the west and some of the area in the eastern part of the park are designated as natural areas. There are no areas proposed for wilderness or wild classifications, mainly because there are no such areas of sufficient size.

About 3,537 acres are designated for extensive recreational area status. Within that classification, about 1,069 acres are designated as open areas that will be maintained as open areas.

Approximately 372 acres are designated as intensive recreation areas. These areas include the north and south shore use areas.

Scientific areas include 309 acres, consisting of the three existing scientific areas and a 27-acre expansion to the Fontenay Springs Scientific Area, needed for wetlands protection and boundary simplification.

See Figure 10 for the land use classes.

MANAGEMENT PROBLEMS

1. People (law enforcement) Problems
   a. Noise in the campground at night
      This is by far the cause of the greatest number of complaints. Causes include design problems which permit non-registered campers to enter the campground at all hours of the night, the campers, the sites to camp together, the lack of vegetation between the sites. In addition, insufficient enforcement personnel to patrol the campgrounds on foot.
   b. Vehicle Traffic
      There is a large volume of vehicles entering and leaving a confined area. Time must be spent directing cars, unloading, and traveling back to cars several times each season.
      Associated problems of pedestrian-vehicle conflicts - make worse with increased numbers of bicyclists, hikers, etc., and associated problems of illegal parking. When the day-use area parking lots are full, cars begin to park in every spot large enough to accommodate their vehicle. There is noise, dust, fumes, and hazards associated with the large number of vehicles in a small area, all at once. There are an increasing number of traffic accidents.
   c. Pets
      Pets are prohibited in picnic areas and on the beach, but any given day will find dozens of dogs in these areas. It is an enforcement problem because of the numbers, because it is an emotional topic, and it is not seen as sufficiently serious to entail a citation by many.
      An associated problem is one that we have brought in. Generally, they are locked in hot cars or tied to a tree or wherever they can be left unnoticed. Many pets in the campground result in noise complaints and littering problems, and leave messes for the next group.
   d. Authority
      Park officials have authority to enforce laws and Department rules on state land only. Unfortunately, the park includes navigable waters, public roads, railroad tracks, and private lands all of which cause problems that spill over onto state land.
   e. User Conflicts
      Conflict with the park's goals and objectives, at effort made to accommodate by wide a variety of recreational uses as possible without conflicting with one another. Over time as activities vary in popularity and new types emerge we experience various conflicts between users emerge. At present the following use conflicts are appearing:
1. Scuba diver vs. fishermen. Both groups seek to use the same water resources at the same time.
2. Rock climbers vs. hikers. Climbers block the trails and throw their ropes down on hikers. Hikers roll rocks down on climbers, get in the way, and leave litter which the climbers feel reflects negatively on them.
3. Day users vs. campers. Different objectives, different values, sharing the same area and disturbing one another.
4. Family campers vs. individual group campers. Different values being imposed on one another.
5. Deer hunters vs. fishermen.
6. Cross-country skiers vs. hikers, snowshoers, and dogs.
7. Rock climbers vs. indoor group camp users. Sharing the same parking.
8. Environmentalists, naturalists, preservationists vs. urban users who use the park as a pretty place to socialize.

A problem underlying all the above is a lack of data base upon which to base decision-making.

f. Miscellaneous

In addition to the above topics, following are rule violations frequently encountered which require enforcement action: no park self-laxation sticker or sticker (improperly attached), possession of controlled substances, campers in undesignated areas, various motor-vehicle violations such as one-way roads, numerous types of vandalism, various fish and game and boating violations on and around the lake.

2. Resource Management Problems

a. Lake Water Quality

The Millipan growth increases every year. It is invading the swimming areas, causes problems for boats, and creates an expensive cleanup operation after washed to shore.

Swimmers itch. Although not a water quality problem, it crops up each June and creates public relations problems, negatively affects attendance, and the treatment is costly and questionable from an environmental standpoint.

Recent years have witnessed algae blooms. Same say this is new.

b. Fluctuating Water Levels

In low years this is negative for swimming, scuba diving, boat launching, boat mooring. High years cause erosion problems, boat launching and mooring problems, less sand for sunbathers, and at the extreme, water over the South Shore Road.

Other associated problems include loss of sand from shore either washed deeper or blown into gullies.

c. Fire

The vast majority of the fires at Devil's Lake occur on the bluffs and are visitor caused. Due to the topography the fires are costly, difficult, and dangerous to suppress. A second major cause of fire is the railroad. They either spread to the east bluff or endanger the South Shore campground.

d. Upland

The acquisition program has included several farms. Opinions vary as to the best use to make of this crop land. Most of it is marginal from a production standpoint. There are groups opposed to each of the options which include allowing it to go fallow, slowing, or burning to keep down brush invasion, rental of land, and shorecapping.

e. Hunting and Fishing

By statute, the park is a wildlife refuge. It is open to deer hunting for the rifle and late bow seasons. At public meetings and at sportmen's group meetings there has been some pressure to open extensive areas of the park to small game hunting. There have been overpopulations of squirrels and raccoons. Hunting does occur illegally primarily due to the difficulty to keep acquisition boundaries posted. Fishing has been put end take for Trout. Fishing at stocking sites sometimes occurs. Some illegal spearing by scuba divers does take place.
Open Field (1,195 acres)

The open field cover type includes former pastures, grassy areas and farmlands, the open fields which are characterized by many species of grasses, old field cinquefoil, common St. John's-wort and evening primrose. This community is often under varying stages of shrub invasion around its perimeters, and if continued disturbances were ended, it soon would evolve into one of the shrub communities.

White Pine

White pine plant communities are uncommon in this part of the state, and within the park are found only in the bluffs and deep cool gorges. Pine hollow for example, (Section 15) is dominated by white pines and is very boreal in character, with many northern plants because of the cool seepage that flows into the narrow gorge. The area along the bluffs at the southwestern corner of the lake, is also dominated by large white pines. Components of the pine stands are mainly white pine, with a few red pines. White birch, beaver and some oaks are also associated with the pines. Ground cover, includes such northern tree plants as lichens, mosses, rock fern, marginal ferns, and Canada mayflower.

Upland Brush (450 acres)

Typically, the upland brush community occurs where an open field community has evolved to the point where shrub species dominate. There are many small scattered pockets of upland brush in the park. Plants included in the cover type are grey dogwood, staghorn and smooth sumac, several species of bramble (Rubus), prickly ash, red cedar, and chokecherry.

Rock Outcroppings

The rock outcropping communities are found only along the steep slopes of the quartzite bluffs. They are typified by widely scattered white pines, white birches, red cedar, and Virginia creeper. Nonwoody species include lichens, mosses, rock fern, leather leaf fern, wild columbine, pale corysalis, and Dutchen's baneberries.

Scrub Oak (185 acres)

Found mainly along the talus slopes, the scrub oak communities are similar to rock outcroppings, but include several species of oaks as well.

Dry Prairie

The dry prairie on top of the south end of the east bluff is the site of a prairie restoration project where trees were cut and the stumps treated to prevent sprouting. It is an area of about five acres bordering the edge of the bluff. Plants present include big and little bluestem grass, lead plant, bush clover, creamy false indigo, several goldenrods, smooth aster, amethyst aster, blazing star, tickseed, shooting star, round-lobed false toothwort (cardelia gottschalki), violet wood sorrel, upland poppy, bletilla violet, and prairie buttercup. Another dry prairie, located on Devil's Nose at the east end of the south bluff, is the only place in the park where prickly pear cactus grows.

Wet Prairie

A wet prairie in the NE 1/4 of Section 19 includes several acres with such plants as gayfeather, white false indigo, scarlet cup, golden alexander, cardinal, water hemlock, and Michigan lily.

Fern Gardens and Boreal Thickets

Fern gardens and boreal thickets located on the cool, moist north face of the south bluff consists of rock and marginal ferns and thickets of mountain maple and red (northern) elder.

Marsh

The marsh close to the southeastern corner of the lake where the creek discharges is the only marshy habitat remaining by the lake and even this area was altered in the past. The small area consists of a thicket of sandbar willows, elms, and cottonwoods, a sedge meadow, small marshy openings, and with receding water mudflats.
Old Growth Forest

The South Shore old growth forest is the only area of undisturbed shoreline and is the place where large virgin trees are located. Large white pines, red and white oaks, and basswoods make this a unique habitat.

Aquatic Vegetation

The limited littoral zone of Devil's Lake has resulted in a scarcity of rooted aquatics. Four pockets of submerged rooted aquatics exist. The major one is located at the mouth of the creek in the southeastern corner of the lake along the alluvial plain created by the stream entering there. Two pockets are located in the southeastern corner and one pocket is found in the northwest corner of the lake. These pockets are known as Atlantic milfoil. They have been introduced into Devil's Lake. Also found in the lake are two quillworts, Isoetes maritima and J. lurida. Quillwort is a fairly common bottom-rooted aquatic plant of northern lakes, but in the southern half of Wisconsin Devil's Lake is the only lake with these species.

Gold water springs found in Messenger Creek valley, at the southwest corner of the lake harbor such plants as water moss and golden saxifrage.

Endangered and Threatened Plants

There are no endangered plants known within Devil's Lake State Park. One threatened species, prairie parsley (Pseudoria nutallii) was found within the park in 1996, but it is probably extirpated. No individuals have been found in recent years. Another threatened species, northern monsoon (Aconitum noveboracense) is found at nearby Portage's Glen.

5. Water Resources

Devil's Lake is a natural lake encompassing 391 acres and lies in the glaciated valley of the Baraboo Range. The lake is 1.29 acres long, with 3.3 miles of shoreline, and a maximum depth of 51 feet. Water quality data indicates that Devil's Lake is a clear, deep oligotrophic lake with exceptionally soft water that is low in productivity. Seepage is the primary water source for the lake. Bottom material of the lake consists of quartzite boulders to a depth of 10 feet along the east and west shores and the central portion of the southern end of the lake. The north end and the remainder of the south have a sand bottom. In areas where the water depth exceeds ten feet, the sand bottom is covered with a layer of mud. Messenger Creek flows into the southeastern corner of the lake. Water quality data for the lake is found in Appendix C.

Located in Sections 23 and 26, T13N, R10E, Messenger Creek is a small intermittent creek originating from a spring in the talus slopes between the southern and western bluffs in the Devil's Lake State Park. The creek, approximately one-half mile long and has an average flow of 391 cfs and flows into the southeastern corner of Devil's Lake.

There are very few remaining wetlands in Devil's Lake State Park. The following wetlands and swamps have been located and typed on Figure 17. They correspond to the U.S. Fish and Wildlife Service classifications as shown in Appendix K.

- Southwestern part of Devil's Lake near the boat landing
  - 0.25 acre Type 3, Island Fresh Marsh
  - 2.00 acre Type 7, Wooded Swamp Marsh
- Southwestern segment of the park
  - 8.00 acre Type 1, Seasonally flooded basins or flats
  - 2.00 acre Type 2, Island Fresh Marsh
  - 8.00 acre Type 6, Shrub marshes
- Northeast section of the park
  - 15.00 acre Type 1, Seasonally flooded basins or flats
  - 2.00 acre Type 3, Island fresh marsh
  - 3.00 acre Type 3, Island shallow fresh marsh

6. Historical and Archaeological Features

At nearby Natural Bridge State Park, in a rock-shelter, is the oldest authenticated site for man in the upper midwest. It is believed that people were living at this site from 10 to 12 thousand years ago, or near to the time when the Wisconsin glacier retreated from the area. In historic times, the Winnebago was the most important tribe of the area, but also represented were the Sauk and Fox, the Kickapoo and probably several other tribes. Another group of people known as the "Effigy Mound Builders" were active in this region about a thousand years ago. They left behind mounds, usually in the shape of animals, but some which were burial mounds. Three mounds have been located in Devil's Lake State Park. One which "resembles a bird" is near the existing nature center, another resembling a bear is near the north end of the lake, and the third mound, resembling a bird, is located at the southeastern corner of the lake. (See Figure 181.)
f. Potentially hazardous tree removal - disposal.
Removal of dead and dying trees in the use areas of the park has always been a costly operation, yet necessary.
g. Damage to Trees
Campers often chop trees as sources of firewood. This is especially severe during those times of the year when the firewood vendor is not in operation. The North Bear Scientific Area is immediately adjacent to the outdoor group camp and this area gets hit hard. Other similar problems include nails in trees for hanging clothes lines, tarpans burned, burning of tires and glass in bear, and removal of branches for warmer sticks. The oaks in the park have suffered from drought and the two-lined chestnut borer - especially in the south bluff.
h. Erosion
There are various causes, including pedestrian volunteer paths, 4-wheel drive vehicles, trails on slopes, and cropland practices.
i. Vehicles Off The Roads
In spring when the ground is soft and wet, considerable damage occurs from vehicles operating off-the-road and from camper’s vehicles in the campground.
j. South Bluff
Very little use is made of the south bluff at present. This is a block of some 2000 acres of relatively pristine land. There is disagreement as to whether trails should be developed on the south bluff. Reasons for trail construction include spreading use, provability to gladial formations, and energy potentials. Reasons against include the cost and difficulty of construction, increased fire hazard, increased illegal camping, root climbing spreading to new areas, and no demonstrated need for more trails.

3. Design/Facility Problems
a. Working around and living with the many private facilities within the park boundary causes problems. These include town and country highways, railroads, private land, and homes. (See Figure 20).
b. Old facilities. Much of the present development occurred in the thirties by the CCC’s. This includes roads, buildings, trails, dikes, etc. Although well constructed, they are reaching an age such that considerable repair is needed. It is a costly type of repair (much masonry), and the design is no longer adequate for modern needs. The question arises “Should they be repaired or replaced with more functional new ones?”
c. South Shore: The quality of the South Shore campground - including the sites themselves the roads, and some of the buildings - lends itself to improper uses and a poor recreational experience.
d. Water access. Boat launching facilities are inadequate to adjust to the fluctuating water levels. No good access points for some divers. No boat mooring facilities.
e. Many of the parking areas, as well as the west campground, are located prior to the contact of terraces. This makes it difficult to collect the revenues due and provide adequate directions and information.
f. Facilities for winter use are not well organized. There are toilets and water only at the headquarters and in the west campground. Parking for skiers is located at St. Luke Beach on CTH LA. There is shelter in the east campground.
g. The sewage treatment system is not usable in the off-season. Water must be turned off in mid-October and not turned on again until mid-April. This conflicts with increased off-season park use as well as demands of the users for more modern facilities.
h. Due to the topography and shallow soils, trails at Devil’s Lake are extremely difficult and costly to construct and maintain.
i. Employee housing. Each year it is more difficult to recruit good employees who work park work experience due to their inability to find and afford housing. Most national parks provide housing for their summer employees to overcome this problem. Park management would like to do likewise.
D. RECREATIONAL NEEDS OF THE REGION

The 1977 Wisconsin Outdoor Recreation Plan (SCOOP), referring to region 3, consisting of Grant, Green, Iowa, Lafayette, Richmond, and Sauk Counties, will 14 state parks, 9 county parks, and 26 public hunting and fishing areas indicate the following recreational needs:

1. Expansion of the swimming resources through careful location of swimming pools and maintaining existing resources through correction of water quality problems will improve the scarce supply of natural lakes in the region.

2. Improvement of surface water activities through an increase in public boating access sites.

3. Development of additional canoe access sites and streamline protection of the region's rivers.

4. Improvement of fishing resources through improving water quality and fishing management techniques with agency preservation of lake and river frontage.

5. Development of campsites in which present demand exceeds supply by 40% for developed sites and is over twice the supply for primitive types.

6. Expansion of the canoeing resources (trails and areas) in which the region's residents rated canoeing the most popular activity; some of the deficiencies in supply will be satisfied through proposed community parks.

7. Protection of nonrenewable resources of scenic, historical, and natural area sites. Development of a scenic byways system is needed in region 3 with the Department of Transportation's Rustic Roads Program being one potential alternative.

8. Hunting resources require protection of wildlife habitat and control over the number of hunters in relation to the game resources. Landowners require agency sportman cooperative programs may be the key to enhancing hunting opportunities is region 3. (See Appendix B)

E. ANALYSIS OF ALTERNATIVES

1. No Action

This alternative would have Devil's Lake remain as it is today. This alternative does not satisfy the park objectives. It does not develop and maintain recreational and interpretive facilities consistent with the protection and preservation of the park, and it does not match use to design capacity. It does not control the automobile access to the major use areas of the park. Also, the Ice Age Interpretive Center could not be adequately served without the careful implementation of an Ice Age Visitor Center.

2. Alternative Location for the Office/Ice Age Interpretive Center

In planning for the Office/Ice Age Interpretive Center, several premises were assumed:

a. Camper registration would best be located at the north end of the park, near the campground.

b. The Office/Ice Age Interpretive Center (and possibly a major contact facility) should be combined into one building for energy and staffing efficiency.

c. A contact station could be located prior to the office for use during busy summer weekends.

d. The South Shore will have its own entrance.
the Shuttle System

To discourage unnecessary automobile traffic, a shuttle system was considered for the park. It was not deemed to be possible to institute the system in the near future - for the life span of this plan. Nonetheless, it is still a long-term goal for the park, and should not be lost sight of.

The system envisioned would not replace all automobile traffic within the park. It would have the following main purposes:

a. To transport visitors from peripheral parking lots in the old quarry area to the south shore day-use area. At both the North Shore and South Shore day-use areas, the parking that will be provided will not be sufficient to completely handle the demand. But rather than devote valuable space to parking, the parking could be provided elsewhere and people could be shuttled to the use areas. This system would be a supplementary system and would not replace parking in the use areas.

b. As a long-range objective, to transport visitors between the North and South Shores using the railroad grade if and when it is abandoned.

c. To move people from their respective campgrounds to the north shore day-use area. This would reduce the number of campers who drive to the beach, take up valuable parking space, and make unneeded drives. Campers could be transported to evening programs, trailheads, and the existing nature center.

d. To serve as an interpretive tool. Interpretive tours will originate from the interpretive center, and/or campgrounds and day-use areas. Utilizing existing roads, the tours would provide a method to interpret the scattered geologic features of the park and its environs to large numbers of visitors.

The shuttle system would operate during high use periods as the park's rapid transit system. There would be three shuttle service times in the park giving preference to the shuttle system. To accomplish this, the following actions should be taken:

1. Shuttle stops would be made right at both beaches. The shuttle could get people closer to the lake than their automobiles can.

2. Three separate routes would operate within the park during peak use periods. (1) A campground shuttle would circulate between all three campgrounds and the North Shore day-use area. (2) The North Shore/South Shore shuttle would circulate via the abandoned (reopened) railroad track if it becomes available. Park users would have access to either shore without driving. (3) A shuttle would run between the quarry and the South Shore. Day users could park in the peripheral lot and be transported to the South Shore. This route could also serve the indoor group camp area and would operate only when day-use parking lots were filled.

3. At each of the major shuttle stops, a covered shelter would be provided for waiting users.

4. The shuttle vehicles would be designed to accommodate bulky items such as picnick supplies and recreational equipment.

The shuttle vehicles would operate mainly on existing roads. However, if the Chicago and Northwestern Railroad line or part of the line through the park is ever abandoned, the Department will make an attempt to acquire the right-of-way and convert it to a shuttle path.
APPENDICES
WILDLIFE OF DEVIL'S LAKE STATE PARK

Mammals Common to Devil's Lake State Park

- Opossum
- Short-tailed shrew
- Pipistrelle
- Mouse
- Fox squirrel
- Eastern flying squirrel
- Meadow mouse (Microtus pennsylvanicus)
- Meadow jumping mouse
- Gray fox
- Long-tailed weasel
- Striped skunk

Reptiles

- Painted turtle
- Eastern garter snake
- Red-bellied snake
- Hog-nosed snake
- Fox snake
- Timber rattlesnake

Amphibians

- Common toad
- Pickerel frog (threatened)
- Green frog
- Gray tree frog
- Tiger salamander

Birds (not a complete list)

- Red-tailed hawk
- Horned owl
- Screech owl
- Red-bellied woodpecker
- hairy woodpecker
- Blue jay
- Black-capped chipping sparrow
- White-breasted nuthatch

Residents

- Rusty grouse
- Boreal owl
- Plotted woodpecker
- Downy woodpecker (when good corn crop)
- Crow
- Tufted titmouse (rare)
- House sparrow

Nesting species (in addition to the residents)

- Green heron
- Wood duck
- Brown creeper
- Mourning dove
- flicker
- Phoebe
- Least flycatcher
- Rough-winged swallow
- Black vireo
- Brown thrasher
- Wood thrush
- Bluebird
- Yellow-throated vireo
- Warbling vireo
- Blue-winged warbler
- Carolina wren
- Louisiana water-thrush

- Masked shrew
- Little brown bat
- Cotton tail rabbit
- Thirteen-lined ground squirrel
- Gray squirrel
- New squirrel
- White-tailed mouse (Peromyscus leucopus)
- Musket
- Red fox
- Raccoon
- Rhea
- White-tailed deer

- Spiny softshell
- Northern water snake
- Brown (Garter's) snake
- Milk snake
- Black rat (Pluto's) snake

- Leopard frog
- Wood frog
- Spring peeper
- Chorus frog

- Blue-winged teal
- Turkey vulture (suspected)
- loon
- Great blue heron
- American coot
- Wood peewee
- House wren
- Catbird
- Oriole
- Cuckoo
- Red-eyed vireo
- Black and white warbler
- Golden-winged warbler
- Swainson
- Canada warbler
### Nesting Species (continued)

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</tr>
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<tr>
<td>Meadowlark</td>
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<tr>
<td>Baltimore oriole</td>
</tr>
<tr>
<td>Cowbird</td>
</tr>
<tr>
<td>Rose-breasted grosbeak</td>
</tr>
<tr>
<td>Goldfinch</td>
</tr>
<tr>
<td>Chipping sparrow</td>
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<td>Song sparrow</td>
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### Migrants

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<tr>
<td>Common loon</td>
</tr>
<tr>
<td>Pied-billed grebe</td>
</tr>
<tr>
<td>Common and red-breasted mergansers</td>
</tr>
<tr>
<td>Osprey (endangered)</td>
</tr>
<tr>
<td>Solitary sandpiper</td>
</tr>
<tr>
<td>Red-brown suetlatch</td>
</tr>
<tr>
<td>Hermit thrush</td>
</tr>
<tr>
<td>Gray-cheeked thrush</td>
</tr>
<tr>
<td>Ruby-crowned kinglet</td>
</tr>
<tr>
<td>Number of species of warblers</td>
</tr>
<tr>
<td>Fox sparrow</td>
</tr>
<tr>
<td>Horned grebe</td>
</tr>
<tr>
<td>Number of species of diving ducks</td>
</tr>
<tr>
<td>Sharp-shinned hawk</td>
</tr>
<tr>
<td>Spotted sandpiper</td>
</tr>
<tr>
<td>Herring gull</td>
</tr>
<tr>
<td>Brown creeper</td>
</tr>
<tr>
<td>Swainson’s (olive-backed) thrush</td>
</tr>
<tr>
<td>Golden-crowned kinglet</td>
</tr>
<tr>
<td>Solitary (blue-headed) visna</td>
</tr>
<tr>
<td>White-throated sparrow</td>
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</table>

### Winter Visitors

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<tr>
<td>Bald eagle (endangered)</td>
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<tr>
<td>Purple finch</td>
</tr>
<tr>
<td>Pine sialis</td>
</tr>
<tr>
<td>Slate-colored junco</td>
</tr>
<tr>
<td>Evening grosbeak</td>
</tr>
<tr>
<td>Redpoll</td>
</tr>
<tr>
<td>Red crossbill</td>
</tr>
</tbody>
</table>

**NOTE:** Eagles soar over in winter, juncos are regular and common visitors, and the others are irregular.
APPENDIX B
RARE AND UNCOMMON PLANTS
OF DEVIL'S LAKE STATE PARK

Endangered

None

Threatened

Northern Hoaryloch (Aquilegia nemorosa var.)*

Prairie Parsley (Polygona nuttallii)

Uncommon

White Stewort (Callitriche heterophylla)

A Sedge (Carex sp.)*

A Sedge (Carex sp.)*

Slender Bog Crapper (Cardamine virginica)

Cancer-root (Oxycoccos sp.)*

*Also federally threatened; found in Parfrey's Glen.
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<th>Parameter</th>
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<th>7/31/74</th>
<th>11/13/74</th>
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<tbody>
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<td>Water Volume (surface acres)</td>
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<tr>
<td>Max. depth (ft.)</td>
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<td>-</td>
<td>-</td>
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<tr>
<td>Mean depth (ft.)</td>
<td>29</td>
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<tr>
<td>Shore length (miles)</td>
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<td>7.2</td>
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<tr>
<td>pH</td>
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<td>7.4</td>
<td>7.8</td>
<td>7.3</td>
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<td>Total Organic N (mg/l)</td>
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<td>.20</td>
<td>.18</td>
<td>.32</td>
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<tr>
<td>NO3 + NO2 + N (mg/l)</td>
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<td>.05</td>
<td>.05</td>
<td>.14</td>
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<tr>
<td>NH4 - N (mg/l)</td>
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<td>.03</td>
<td>.03</td>
<td>.45</td>
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<tr>
<td>Total PO4 (mg/l)</td>
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<td>.01</td>
<td>.01</td>
<td>.04</td>
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<td>Total Alkalinity (mg/l)</td>
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<td>20</td>
<td>20</td>
<td>21</td>
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<tr>
<td>Conductivity (microhm)</td>
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<td>77</td>
<td>90</td>
<td>81</td>
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<td>Secchi Disk (ft)</td>
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<td>10</td>
<td>20</td>
<td>17</td>
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<tr>
<td>Dissolved Oxygen (mg/l)</td>
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<td>11.8</td>
<td>14.4</td>
<td>10.2</td>
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<tr>
<td>(20 feet)</td>
<td>13.5</td>
<td>11.0</td>
<td>14.4</td>
<td>10.0</td>
</tr>
<tr>
<td>(30 feet)</td>
<td>11.8</td>
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<td>10.0</td>
<td>10.0</td>
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<td>Temp °F (surface)</td>
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<td>41</td>
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<td>47</td>
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<td>Chlorine (mg/l)</td>
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<td>3</td>
<td>7</td>
<td>3</td>
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<tr>
<td>Ca (mg/l)</td>
<td>9</td>
<td>17</td>
<td>2.0</td>
<td>7</td>
</tr>
<tr>
<td>Mg (mg/l)</td>
<td>7</td>
<td>8</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Na (mg/l)</td>
<td>2</td>
<td>8</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>K (mg/l)</td>
<td>4</td>
<td>1.5</td>
<td>1.3</td>
<td>2.3</td>
</tr>
</tbody>
</table>
APPENDIX D
SCIENTIFIC AREAS

1. Red Oak
2. Pine Glen
3. Koshawgo Springs
MAN OF AREA: Devil's Lake Red Oak Forest

LATEST INSPECTION DATE: 1-Octubre 1976

QUARTER: SW COUNTY: Sauk TEM. 14 N. RANGE: T. E. Sections: 10, 35

BOUNDARIES AND ACREAGE: Approximately 100 acres within 35 1/4 section 24, SW 1/4 10, and SW 1/4 35. See the map and the reverse side for legal description.

ACCESS TO AREA: The scientific area is within Devil's Lake State Park located about 3 miles south of Baraboo, and east of the largest south shore campground. The South Shore Road accesses the scientiic area.

DESCRIPTION OF AREA: Dominating features are primary and secondary hardwood communities, dominant white oak and red maple, tamarack, willows, palms pond and bracken. The scientific area is part of a deep, forested gorge called in the Baraboo Hills by an ancestral Wisconsin River, and later abandoned and partially filled with glacial debris. The wooded portion south of the talus slope is dominated by an even aged stand of nearly pure red oak (164.9 Importance Value) which originated between 1856 and 1879 according to tree core data. Red maple (0, 7 II) and white oak (25.6 IV) are the two other common tree species. White oaks are substantially larger and the other canopy trees are open grown. In contrast, the red maples are small trees and dominate the sapling layer. James L. Larsen documented the forest invasion by red maple in "A study of an invasion by red maple of an oak woods in southern Wisconsin" Am. Mid. Nat. By 505-514 (1953). Forest soils are Baraboo and Millikilt silt loam; many quartzite and some liasous bedrock is visible on the forest floor. The forest is situated on top of the terminal moraines of Lake Woodfordian (Carr) age which blocked the ancient river channel. The northern portion of the scientific area includes a portion of the talus slope of angular blocks of jointed quartzite below vertical cliffs. Only scattered trees of red oak, hickory, white pine, white birch, red cedar and basswood occur on the talus slope which rises some 400 feet. The nearly level upland summit above the talus slope is wooded with a mixed forest of young oaks and hickory.

HISTORY OF LAND USE AND LIMITING FACTORS: In recent years some of the red oak has been harvested by rabbit farmers. This pressure, along with the loss of 1940 and crop competition with the red maples, has significantly reduced the size of some red oak and permitted invasion by the two-lined chestnut borer. An estimated 2000 trees are infected. Heavy deer browsing pressure on barberry plants, autumn 1976.

ADMINISTRATIVE INFORMATION: Landscapers are not responsible for providingDIVISIONS OF USE, although they have responsibility for the area. The Division of Parks and Recreation, the U.S. Forest Service, and the Department of Natural Resources, Bureau of Parks and Recreation, Superintendant, Devils Lake State Park, Mt. 9 Box 32, Baraboo, 53913.

This area is to be protected for wildlife, recreational, and scenic uses.

REFERENCE INFORMATION: Forest management area, vegetation, wildlife and other biological data and data on various plans and reports for management planning.

This report was prepared by J. T. Curtis and is available at the Group Office. It is based on the 1957 forest inventory, and the map was developed as part of the forest inventory. The map was developed as part of the forest inventory. The map was developed as part of the forest inventory.

REPORTED BY: William Evans

DATE: October 1976
LEGAL DESCRIPTION: T.11 N. R. 7E.

Begin at the SW corner of Section 19, town and range aforesaid, thence East 440' m.o.l. to the place of beginning; thence South to the R.R. right-of-way, thence easterly along the R.R. right-of-way to a point 3410' West of the east line of Section 19 and 30, town and range aforesaid, thence North parallel to the east line of Section 30 and 19, 3150' m.o.l. to a point 180' North of the North line of S+E SW-S of Section 19, thence West parallel to said North line of S+E SW-S to 2375' m.o.l. to a point, thence southerly 1470' m.o.l. to the South Shore Road to a point, thence easterly 1430' along South Shore Road to a point, thence South 640' m.o.l. to the place of beginning.
**DEVIL'S LAKE AND OAK FOREST SCIENTIFIC AREA**

**QUANTITATIVE DATA SHEET**

| Location: Sauk County, Wisconsin, T13N R17E, Section 30, 33 |
| Data and Source: June 4, 1970 Gary Hinsch |
| Method: Total Quadrat Method, 25 points |

<table>
<thead>
<tr>
<th>Tree Species</th>
<th>No. Points of Intersection</th>
<th>No. of Trees</th>
<th>Mean Area</th>
<th>Percent of Total</th>
<th>Relative Importance</th>
<th>Relative Dominance</th>
<th>Importance Value</th>
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<tbody>
<tr>
<td><em>Quercus rubra</em></td>
<td>26</td>
<td>26</td>
<td>15,304</td>
<td>40%</td>
<td>43.1%</td>
<td>4.2:1</td>
<td>164.9</td>
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<tr>
<td><em>Acer rubrum</em></td>
<td>27</td>
<td>27</td>
<td>1,683</td>
<td>12%</td>
<td>42.1%</td>
<td>4.2:1</td>
<td>99.7</td>
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<tr>
<td><em>Fagus grandifolia</em></td>
<td>1</td>
<td>1</td>
<td>374</td>
<td>1%</td>
<td>37.4%</td>
<td>3.7:1</td>
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<tr>
<td><em>Betula alleghaniensis</em></td>
<td>1</td>
<td>1</td>
<td>137</td>
<td>1%</td>
<td>21.7%</td>
<td>3.7:1</td>
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<tr>
<td><em>Populus tremuloides</em></td>
<td>1</td>
<td>1</td>
<td>113</td>
<td>1%</td>
<td>11.3%</td>
<td>3.7:1</td>
<td>1.1</td>
</tr>
<tr>
<td><em>Aspen</em></td>
<td>1</td>
<td>1</td>
<td>15</td>
<td>1%</td>
<td>1.5%</td>
<td>3.7:1</td>
<td>1.1</td>
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<tr>
<td><em>Tilia americana</em></td>
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<td>2</td>
<td>15</td>
<td>1%</td>
<td>1.5%</td>
<td>3.7:1</td>
<td>1.1</td>
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<tr>
<td><em>Total</em></td>
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<td>3</td>
<td>15</td>
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<td>1.5%</td>
<td>3.7:1</td>
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<table>
<thead>
<tr>
<th>Relative Importance (R)</th>
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<tr>
<td>43.1%</td>
<td>4.2:1</td>
<td>164.9</td>
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<tr>
<td>42.1%</td>
<td>4.2:1</td>
<td>99.7</td>
</tr>
<tr>
<td>37.4%</td>
<td>3.7:1</td>
<td>1.1</td>
</tr>
<tr>
<td>21.7%</td>
<td>3.7:1</td>
<td>1.1</td>
</tr>
<tr>
<td>11.3%</td>
<td>3.7:1</td>
<td>1.1</td>
</tr>
<tr>
<td>1.5%</td>
<td>3.7:1</td>
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**Eualing Relative Importance**

<table>
<thead>
<tr>
<th>Tree Species</th>
<th>Percent of Total</th>
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<tbody>
<tr>
<td><em>Quercus rubra</em></td>
<td>40%</td>
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<tr>
<td><em>Acer rubrum</em></td>
<td>12%</td>
</tr>
<tr>
<td><em>Fagus grandifolia</em></td>
<td>1%</td>
</tr>
<tr>
<td><em>Betula alleghaniensis</em></td>
<td>1%</td>
</tr>
<tr>
<td><em>Populus tremuloides</em></td>
<td>1%</td>
</tr>
<tr>
<td><em>Aspen</em></td>
<td>1%</td>
</tr>
<tr>
<td><em>Tilia americana</em></td>
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**Diameter Relative Importance**

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<td><em>Populus tremuloides</em></td>
<td>1.12</td>
</tr>
<tr>
<td><em>Aspen</em></td>
<td>1.12</td>
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**Herbaceous and Shrub Relative Importance**

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<td><em>Aster ageratoides</em></td>
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<tr>
<td><em>Aster cordifolius</em></td>
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<tr>
<td><em>Aster filifolius</em></td>
<td>33%</td>
</tr>
<tr>
<td><em>Aster novae-angliae</em></td>
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<td><em>Aster vomitorius</em></td>
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<td><em>Aschleris longiloba</em></td>
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<td><em>Eupatorium perfoliatum</em></td>
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<tr>
<td><em>Solidago canadensis</em></td>
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<tr>
<td><em>Solidago rugosa</em></td>
<td>33%</td>
</tr>
<tr>
<td><em>Solidago virgaurea</em></td>
<td>33%</td>
</tr>
</tbody>
</table>

**Original Method:** Points were located on chains east (130 feet) at logging lines perpendicular or compass lines. At each of the 25 points, four trees and five saplings were selected for measuring according to the point method. For specific instructions on measuring, see Grimes, C. and J. T. Curtis, 1956. The use of distances between measuring points and the compass method. Ecological Monographs 27:435-460. At each point, two points of measurement, one on each side of the tree, was tilled to gather seedling data from which the data were gathered. All trees were measured in 2.5 cm. saplings between 1" and 1" were not measured. The tree diameter data were gathered at 12 points (45 saplings) only.

**Scientific Area:**

- **Tree Diameter - Inches**
  - *Quercus rubra* (6-8 in)
  - *Acer rubrum* (4-6 in)

**Scientific Area Map:**

- **Route Followed**
  - **Scale:** 1/2 mile

**Additional Data Available:**

- Continuous data 1760.3
- Points per acre = 176
- Saplings per acre = 21.9
- Average basal area per tree = 10.9 sq. ft.
- Average diameter = 1.12 ft.
- Censuses made: 13 points
- Data collected: June 1st 1970

---

**Scientific Area Diagram:**

- **Tree Diameter - Inches**
  - *Quercus rubra* (6-8 in)
  - *Acer rubrum* (4-6 in)

---

**Scientific Area Map:**

- **Distance:** 0.3 miles
- **Scale:** 1/2 mile

---

**Scientific Area Description:**

- **Scientific Area:**
  - *Quercus rubra* (6-8 in)
  - *Acer rubrum* (4-6 in)

---

**Scientific Area Notes:**

- **Route Followed:**
  - **Scale:** 1/2 mile
  - **Distance:** 0.3 miles
# Wisconsin Scientific Areas Preservation Council
## Scientific or Natural Area Report

**Name of Area:** Pine Glen  
**Inspection Date:** January 9, 1967  
**Quarter Section:** 36, NW, Range 6E, Section 55  
**County:** Sauk

** boundaries and scope:**科学面积大约为120英亩，描述如下：

- **Section 35, NE 1/4, SE 1/4, SW 1/4:** North of the Pine Glen Road, north of the western boundary, north of the northern boundary.
- **Approximately 60 acres west of Old Highway 17 and Badger Access to area "from Devil's Lake State Park on South Shore Road, south 1 1/2 miles on Old Highway 17, then west by foot into area."

**Description of area:** Outstanding features, primary and secondary biotic communities, dominants, understory and rare species, topography, soils, geology and archaeology.

- Pine Glen is a deep, spectacular cut in the south fork of the South Baraboo Range formed by a deep, narrow gorge incised in a broad flat-topped ridge. Unlike some of the other gorges, in the Baraboo Hills, it has no younger sediments. An intermittent stream flows through the glen, which contains many large white boulders and white sand exposures. On a smooth bedrock ridge there is a small red rock cliff. Some typical ground flora includes tall red sandstone glade. Tree species: Basswood, sugar maple, yellow birch, red oak and a blue oak. Near the lower end of Pine Glen is a coldwater drainage which provides habitat for northern plants such as oak fern, astilbe, club-moss, blue-bead lily, twisted stalk, small Solomon's seal, Canada mayflower, starflower and northern enchanter's-nightshade.

**Plant list by Ken Lange.**

**History of land use and limiting factors:**

**Administrative information:** Land owner and administrator, existing and proposed management, degree of scientific, educational and recreational use of area, Department of Natural Resources, Bureau of Parks and Recreation within Devil's Lake State Park.

Area is removed from the state park's high use areas, and is utilized to a limited degree for nature hiking and bird watching. Surrounding lands, except for Badger Ordinance in the north, are pinched.

**Reference information:** person recommending area, references, quadrangles and other publications and date of action toward designation of area.

Area recommended by Ken Lange. See Baraboo and North Freedom Quadrangles and State Park folders.

Established as the 97th Scientific area March 31, 1972.


**Rev. 3/71 Report by: Clifford E. Gorman**

**Date:** January 27, 1972
NAME OF AREA: Keshawage Springs  
LATEST INSPECTION DATE: 21 April 1977

QUARTER 8V  COUNTY: Cook  
TWP.  11N  RANGE  58  SECTIONS  23

BOUNDARIES AND ACREAGE: 40 acres described as: Disoffset, and Wahl, L. C.  23

ACCESS TO AREA: The area is located near the southwest corner of Devil’s Lake, about 4 miles south of Baraboo. Follow Highway 123 and then South Shore Drive into Devil’s Lake State Park to Messenger Creek, then follow a dead-end driveway westward several hundred feet. Walk along Messenger Creek into area.

DESCRIPTION OF AREA: Outstanding features, primary and secondary birds, vegetation, domes, and greenery and atmosphere. Keshawage Springs scientific area is centered on Messenger Creek between 1 and 1/4 miles from its outlet at Devil’s Lake. In its upper reaches within the scientific area, the stream is small and fluctuates according to the amount of local rainfall; for the watershed is only 1.5 square miles of forested slope. Keshawage, Ryan, and numerous other springs sources flow through and over the rocky valley floor and collect in Messenger Creek.

The creek occupies an ancient valley cut into the Precambrian Baraboo quartzite which was later filled in with Upper Cambrian sandstone and subsequently partly eroded. Quartzite outcrops on the eastern valley wall, while sandstone remains on the western slope. Red bed and basawood with burtwood dominate the moist western valley slope, while the dry eastern slope contains white oak, hickory, large-toothed aspen, and scattered white pine. Along the stream and spring sources are sugar maple basawood, yellow birch, and blue beech. A well developed shrub layer includes red elder, mountain maple, Viburnum, dogwood and hazelnut.

One of the primary features of the area is the presence of several uncomon to rare species of plants. Water moss, Fontinalis, and the fresh water red alga, Stropharia sarma.

HISTORY OF LAND USE AND LIMITING FACTORS: White pine stands on eastern valley slope and young to medium size of most of the dominant tree species, as well as forest grain aspect of all trees, indicate former logging in most of the scientific area, possibly during the early 1900s.

ADMINISTRATIVE INFORMATION: Landowner and administrator, existing and proposed management, degree of scientific, aesthetic and recreational use of area, adjacent lands and jurisdiction, managed as part of Devil’s Lake State Park. Contact: Park Superintendent, Route 4, Box 54, Baraboo 39131. Management consists of protection from all manipulations. Surrounding lands nearby entirely under state ownership. A trail through the area permitted hiking from what was formerly the Chicago Mountaineer’s Club to South Shore Road. But now trail is low and the trail itself is indicated in portions as it receives only light to moderate use.


REPORT BY: C. E. Germain; revised by William Tend. DATE: April 1977
occur in Messenger Creek. The ferns Botrychium obliquum, B. dissectum and Thelypteris hexagonoptera occur in the rocky valley floor, while Carex praecox grows in cold, wet soil of the creek bed—here its only known station in the state.

At least three species of orchids are known from the area: yellow lady’s-slipper, purple-fringed orchid, and Hooker’s orchid.

Breeding birds include the Acadian flycatcher, Cerulean warbler, Louisiana water-thrush and broad-winged hawk.
Recreational travel in Wisconsin is predominately by personal car. In a 1970 state line survey, 49 percent of summer weekend trips were for recreational driving, in contrast to only 38 percent on average weekdays. Summer weekend day volumes are 65.4 percent larger than weekday traffic volumes. In a 1974 analysis, about 65 percent of the automobile traffic during the months of June to September is recreation-oriented.

**FIGURE 6**
OUTDOOR RECREATION PLANNING REGIONS
REGION 3

DESCRIPTION OF REGION

Planning Region 3, located in southwestern Wisconsin, includes Grant, Green, Iowa, Lafayette, Richland, and Sauk Counties.

The 1974 population of the planning region was 174,214, or 3.8 percent of the state’s population (Table 103). The region is predominantly rural with 70 percent of the population living in rural areas. Major cities include Platteville (9,599), Monroe (8,654), Baraboo (7,931), Richland Center (5,086), and Reedsburg (4,585).

The 1974 population density is 14.7 people per square kilometer (38.2 persons per square mile) (Table 104).

Per capita adjusted gross income of $3,420 is 83 percent of the state average (Table 109).

Region 3 is relatively rich in recreation resources. There are 14 state parks and nine county parks in the region. There are 26 public Hunting and Fishing Areas in the region, mostly along the Wisconsin River. The largest, the Blue River Wildlife Area with 1,700 hectares (4,206 acres), is located in Grant County. The Mississippi and Wisconsin Rivers, two outstanding resources, form the border for part of the region. Portions of the Upper Mississippi Wild Life and Fish Refuge are found along the Mississippi River in Grant County.

SWIMMING

Supply. Natural lakes are scarce in Region 3. The majority of those present are concentrated in Sauk and Grant Counties. The rivers and streams of the region provide the major surface water resource. The Wisconsin and Mississippi Rivers are particularly important in this respect.

Containing 35% of the state’s total surface water area, Region 3 supplies approximately 4% of the state’s swimming beach area and 6% of its swimming pool area. Over 50% of the region’s beach area is owned by the state; about 41% by county and municipal governments and only 9% by private enterprise (Table 109). Eighty-three percent of the swimming area is owned by municipalities, 17% by private enterprise (Table 109).

Inadequately treated sewage, agricultural runoff and harmful land use practices have led to pollution of many of the region’s waters. Both water quality and swimming opportunities are thereby reduced. Efforts have been made to improve sewage treatment. Significant programs for investigation and management of agricultural runoff and land use practices have yet to be established.

Demand. Five percent of the total state swimming participation occurs within the region (Table 110). On an average weekday, nonresident participation is 2% of the resident participation. Resident participation levels are, however, near average.

Need. No need for additional swimming facilities is forecast for Region 3 through the year 1960 (Table 111). This forecast is based on the total available resources and does not take into account the quality of the resource or its relative availability to participants. Localized deficiencies in the swimming resource resulting from the general absence of natural lakes, the uneven distribution of available surface waters and the reduced quality of many of the region’s waters may therefore be masked. Management to improve or prevent such situations would best be aimed at a) expanding the resource by careful location of swimming pools and b) maintaining and improving the existing resource through correction of water quality problems.

BOATING

Supply. Much of Region 3 lies in the driftless area and is almost entirely forested. The Driftless Area and Wisconsin Rivers provide the bulk of the region’s surface water area (Table 112).

Public access to water in Region 3 is reasonably good; that is the number of access sites relative to the region’s water area and population is near the state average (Table 110). In addition, a greater-than-average percent of the region’s inland lakes are accessible to the public.

Demand. Boating participation in Region 3 is below the state average for residents and nonresidents alike, together accounting to only half the average regional share (Table 114). This low level of demand can be attributed to limited surface water supply and to the concentration of that supply in two major rivers. Water quality problems exist, but are not generally seen as deterrents to boating.

Needs. According to design standards, 20 access sites could be added without threatening to overcrowd the region’s surface waters (Table 115). Demand pressure suggests a need for 4 to 5 access sites, indicating that a program to provide access facilities up to the optimum design number would be justified.

CANOEING

Supply. Region 3 has 415 kilometers (258 miles) of recognized canoe streams that flow through the Pecosintons, Kickapoo and Baraboo Rivers. In addition, other canoeing opportunities exist. The backwaters of the Mississippi and Wisconsin Rivers are examples of such areas.

Most of the canoeable waters in Region 3 traverse diverse scenery. The Baraboo River, in particular, flows through some areas of remarkable scenery, most notably the Rock Springs Area. Navigation of these streams generally does not require a high level of canoeing expertise. Public access in Region 3 is reasonably good. About 14% of the state’s total public developed and undeveloped canoe access sites are found on designated streams in Region 3 (see Table 21).

Demand. Region 3 generates 4,000 canoeing occasions per average seasonal weekend day or 6% of the state’s canoeing participation (Table 116). Residents account for 92% of the region’s canoeing participation; nonresidents account for the remainder. Residents do not participate heavily in canoeing since most of the canoeable bodies of water can also be traversed with conventional small boats which eliminates the stimulus for canoeing.

Need. Development of nine additional public developed and undeveloped canoe access sites is required to provide maximum access on designated canoe streams in Region 3 (Table 117). Shoreline protection along the Kickapoo River, in particular, and better access on the Mississippi and Wisconsin Rivers are needed if the potential for canoeing is to be realized.

FISHING

Supply. The surface waters of Region 3 are well suited to both recreational and commercial fishing. The Wisconsin and Mississippi Rivers provide the majority of fishing opportunities (Table 118). Both rivers provide fishing opportunities for the fly fisherman as well as the freshwater angler. Large areas of state and federal land bordering these waterways contribute to the uniqueness of the experience.

The region’s rivers suffer from various types and degrees of pollution, which are almost always detrimental to fish populations. Recent research indicates the potential exists to improve the quality of many of the region’s rivers. Use of rivers as recreation resources could be further increased if programs to improve land use practices in the region were initiated and carried through.

Demand. Regional resident fishing participation is above the state average and a large percentage of this activity takes place outside of the region (Table 119). Out-of-state residents fishing in the region equal the number of local participants.

Need. The need for accommodating increased fishing participation can be alleviated by improving and increasing public access to the fishery (e.g., boat launching sites, improved transportation systems), by improving water quality and by improving fishery management techniques. To minimize the disparity between the supply of and the demand for quality aquatic water resources in this region, governmental agencies must be committed to preserving lake and river frontage wherever it is available.

CAMPING

In the following analysis, camping facilities have been divided into two categories: developed and primitive. By definition, developed campgrounds are accessible by automobile and include improvements such as drinking water, picnic tables and toilets. Analysis of present and future
recreation demand and need assumed 50 camping occasions per hectare (20 per acre) with four campers per camper at the maximum which could comfortably be accommodated. In contrast, primitive campsites are generally limited to a cleared tent site and a fire ring. In more intensively used areas, pit toilets and drinking water may also be provided. In analysis of present and future recreation demand and need a general guideline of 2 campers per hectare was assumed in order to maintain the desired quality of remoteness associated with primitive camping.

Unlike previous recreation plans, sites not directly accessible by automobile, but located on the undeveloped countryside were counted as developed sites, rather than primitive.

Developed Camping

Supply. The Mississippi River, the Wisconsin River and its Delta area and the Southern Coulee Region attract many recreationalists to Planning Region 3. Nine of the region's 13 state parks provide camping opportunities (Tables 103, 106). Governor Dodge and Yellowstone Lake State Parks are among the more popular. Private campgrounds offer additional quality camping opportunities. Located near state parks, many of these campgrounds offer ready access to the parks' recreation opportunities. The region provides 3,608, or about 8% of the state's developed campgrounds (Table 129). Private enterprise supplies 58% of this resource. State parks provide about 32%. County, municipal and federal properties supply the remaining percentage. The quality of campgrounds varies, but is generally good.

Demand. Region 3 supports about 12% of the state's developed camping. The most recent estimates indicate that demand for developed camping is about 12% of the available supply (Table 121). This excess demand serves both to aggravate problems of localized congestion in more popular campgrounds, e.g. Devil's Lake, and to limit the individual's options for different types of camping experiences. On a seasonal weekend nonresident camping participation is more than two times greater than resident participation.

Need. Management plans for the region should investigate the strategies for expansion of the resource (Table 122). The region's large tracts of state parks offer some potential for expansion, however, care should be taken not to jeopardize the natural resource base. The greatest contribution public agencies can make is in training and technical assistance focusing on quality campground maintenance, development and location.

Primitive Camping

Supply. Region 3 contains 68 primitive campgrounds, approximately 14% of the state total (Table 128). Twelve of these are located in New Glarus Wood State Park; the remainder are scattered throughout the region.

Demand. The region's demand for primitive camping is more than two times the available supply (Table 124). As a whole, the state supplies 5% of the state interpreted primitive camping experiences. The nonresident participation level is about three times that of residents.

Need. The demand for primitive camping already exceeds the supply of primitive campgrounds (Table 125). Uncontrolled primitive camping has been noted in nondeveloped areas—e.g., along major rivers, in public hunting ground areas and at highway waysides. Camping in these areas is generally discouraged.

The management policies of individuals or agencies controlling tracts of undeveloped land will have important effects on the availability of resources for primitive camping. Site development should be investigated and might be considered a priority area for public government involvement since the private sector has little financial incentive for providing primitive camping facilities. In this regard, the region's federally-owned land provide potential for site development with additional land should be explored.

PICKNICING

Supply. Some of Wisconsin's more popular state parks, like Wyalusing (Grant), Governor Dodge (Iowa) and Devil's Lake (Sauk), are located in Region 3. These parks and sites like White Mount County Park (Sauk), Blackhawk Lake County Park (Iowa) and Oshkosh City Park (Sheboygan) contribute significantly to the provision of quality picnicking opportunities. The "Driftless Area" in Region 3 offers an environment of scenic and natural beauty that enhances the picnicking experience. In addition, the shores of the Mississippi and Wisconsin Rivers sustain picnicking and a number of restricted recreational activities. Region 3 provides 8% of the state's supply of picnic tables and 7% of the state's supply of picnic area. The state and the municipal units of government are the major providers of picnic tables in the region as presented in Table 128. The county and the state are the major providers of picnic area as presented in Table 128.

Demand. Over 22,000 picnicking occasions per average weekend day, or 8% of the state's total picnicking participation, take place in Region 3. The levels of picnicking participation for residents and nonresidents alike are above average (Table 127). In fact, picnicking is ranked the most popular activity by residents in Region 3. Recreational accounts for 75% of all nonresident picnicking, and the remainder are generated by nonresidents. Both residents and nonresidents believe nature is the main reason for picnicking. Region 3 is the region with the greatest number and concentration of picnic tables located throughout the region. The federally owned Upper Mississippi Wild Life and Fish Refuge, comprising about 6,800 acres or 70,000 acres of total land area, is the primary setting for picnicking. High level maintenance of picnic area and support facilities are needed to prevent site deterioration.

SCENIC AND HISTORIC RESOURCES

Some of the more significant scenic recreational resources are found in Region 3. Included are the Wisconsin Delta, the Coulee Region, and the Mississippi, Wisconsin, Pecatonica, and Sugar Rivers.

Two of the ten scenic roadways identified in the State Scenic and Historic Resources sections are included in Region 3. They are the Great River Road along the Mississippi River and the Wisconsin River route.

A number of the region's historic sites are listed in the National Register of Historic Places. These are presented by county in Table 128. Other sites in Region 3 considered to have archaeological and historical and scientific significance are listed in the Wisconsin Historic Preservation Panel. Volume II (1973). Two of the region's natural areas, Abraham's Woods (Green) and Wyalusing Hardwood

127
HUNTING

Supply. A very small percentage (less than 1%) of the lands open for public hunting in the state is located in Region 3 (Tables 130 and 131). As in most regions of the state, private property owners accommodate a major portion of hunting demand. Loss of private lands for public hunting, intensive agriculture and shifts in population all encourage hunting-oriented activities such as hunting. Hunting opportunities will decrease in the future unless habitat is preserved and improved and more private lands become available to hunters.

Demand. Per capita hunting participation by Region 3 ranks in the upper average (Table 132). Wildlife and habitat resources supply adequate opportunities, thus, levels of participation are high.

Need. Intensification of land use and loss of wildlife habitat have greatly affected the quality of the hunting experience. Preserving hunting as a recreation experience requires the protection of the remaining vestiges of wildlife habitat, the authority to control the number of hunters in relation to productivity of the game resource and the development of hunting customs and a code of ethics. Local government agencies and private organizations are the key to enhancing hunting opportunities in Region 3.

REGIONAL RECOMMENDATIONS AND ACTION PROGRAMS

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

With the exception of Sauk County, which has never been a member of a regional planning commission, both the Southwestern Wisconsin Regional Planning Commission (SWWRPC) and SCORP Planning Region 3 serve Grant, Green, Iowa, Lafayette and Richland Counties (Figures 6 and 16).

In general, emphasis should be focused on the primary environmental corridors: the Mississippi and Wisconsin Rivers. SWWRPC's recommendations focus on the need to protect the scenic amenities of the Mississippi River, to utilize the river's recreation potential, and to develop fully the Great River Road by zoning, scenic easements, acquisition and relocation. It was further proposed that Grant County, in cooperation with the Department of Natural Resources, establish a linear park along the bluffs of the Mississippi River. The main feature of such a park would be a hiking and nature study trail. The advantage of such a proposal lies in its ability to protect the bluffs from undesirable and unsightly developments.

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

The Lower Wisconsin River is the focal point of another federal-state sponsored study. This joint Bureau of Outdoor Recreation, Wisconsin Department of Natural Resources study will survey the feasibility of classifying the Lower Wisconsin as a scenic or a recreational river. The main purpose of such designation, of course, will be to aid in the preservation of the scenic and recreation aspects of the Lower Wisconsin. Any recommendation at this time by the SWWRPC or the DNR for the Lower Wisconsin would preempt the federal-state study.

An interagency-private approach to the development of a management plan for the Upper Mississippi River has been underway since late 1974 when the U.S. Congress authorized funding for a Mississippi River Study. Numerous Federal and state agencies, private organizations and individuals are working together as a unit called Great River Environmental Action Team (GREAT) to resolve some of the short-term and long-term management problems, in particular the disposal of dredge spoil, on the river. A special work group on recreation has been formed to improve the quality and opportunity for outdoor recreation on the river, particularly as it relates to commercial navigation and the dredging needed to maintain the navigation channel.

The final management plan will undoubtedly affect existing Wisconsin programs, particularly recreation programs. State agencies, such as the Geological and Natural History Survey, State Planning Office, Business Development, Transportation, UW-Extension, Regional Planning Commissions and the Department of Natural Resources must all participate in order to increase the potential that the final product will contribute to the betterment of outdoor recreation on the Mississippi River.
### TABLE 108
Summary of Data on Land and Water Resources, Population and General Economy in Region 3

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land and Water Resources</td>
<td></td>
</tr>
<tr>
<td>Land</td>
<td>1,181,265 (2,919,009)</td>
</tr>
<tr>
<td>No. hectares (acres)</td>
<td>1,181,265 (2,919,009)</td>
</tr>
<tr>
<td>Percent of region</td>
<td>1,181,265 (2,919,009)</td>
</tr>
<tr>
<td>Water</td>
<td>15,536 (38,391)</td>
</tr>
<tr>
<td>No. hectares (acres)</td>
<td>15,536 (38,391)</td>
</tr>
<tr>
<td>Percent of region</td>
<td>15,536 (38,391)</td>
</tr>
<tr>
<td>Total</td>
<td>1,196,801 (2,957,400)</td>
</tr>
<tr>
<td>No. hectares (acres)</td>
<td>1,196,801 (2,957,400)</td>
</tr>
<tr>
<td>Percent of state</td>
<td>8.2</td>
</tr>
<tr>
<td>Population</td>
<td></td>
</tr>
<tr>
<td>Density per square kilometer (per square mile)</td>
<td>14.7 (38.2)</td>
</tr>
<tr>
<td>Total 1970</td>
<td>168,010</td>
</tr>
<tr>
<td>Percent of state</td>
<td>3.8</td>
</tr>
<tr>
<td>Total 1974</td>
<td>174,214</td>
</tr>
<tr>
<td>Percent of state</td>
<td>3.8</td>
</tr>
<tr>
<td>Total 1980</td>
<td>179,755</td>
</tr>
<tr>
<td>Percent of state</td>
<td>5.7</td>
</tr>
<tr>
<td>Economy</td>
<td></td>
</tr>
<tr>
<td>Per capita adjusted gross income</td>
<td>$5,420</td>
</tr>
<tr>
<td>Percent of state average</td>
<td>8.8</td>
</tr>
</tbody>
</table>

**NOTE:** See footnotes 1-6 in Summary of Data on Wisconsin's Land and Water Resources, Population and General Economy on page 20.

### TABLE 109
Swimming Facilities in Region 3, 1975

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Beaches</th>
<th>Pools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal State</td>
<td>63,938</td>
<td>688,248</td>
</tr>
<tr>
<td>County</td>
<td>14,529</td>
<td>160,640</td>
</tr>
<tr>
<td>Municipal</td>
<td>34,221</td>
<td>269,261</td>
</tr>
<tr>
<td>Subtotal</td>
<td>112,708</td>
<td>1,019,159</td>
</tr>
<tr>
<td>Private</td>
<td>5,990</td>
<td>64,476</td>
</tr>
<tr>
<td>Total</td>
<td>118,708</td>
<td>1,083,635</td>
</tr>
</tbody>
</table>

*Includes an estimate for Grant County facilities based on average size of municipal beaches reported in 1970.
**Includes an estimate for Richland County facilities based on average size of private pools reported in 1975.

### TABLE 110
Swimming Participation in Region 3 in 1975 and Projected Participation in 1980, 1985 and 1995

<table>
<thead>
<tr>
<th>No. of Recreation Occasions Per Average Weekday</th>
<th>1975</th>
<th>1980</th>
<th>1985</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents</td>
<td>15,200</td>
<td>15,800</td>
<td>16,500</td>
<td>17,700</td>
</tr>
<tr>
<td>Nonresidents</td>
<td>19,000</td>
<td>19,900</td>
<td>20,900</td>
<td>23,000</td>
</tr>
<tr>
<td>Total</td>
<td>34,200</td>
<td>35,700</td>
<td>37,400</td>
<td>40,700</td>
</tr>
</tbody>
</table>

### TABLE 111
Swimming Supply, Demand & Need in Region 3*

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Recreation Occasions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>Supply 39,690, Pool 10,642, Demand 34,200</td>
</tr>
<tr>
<td>1980</td>
<td>Supply 39,690, Pool 10,642, Demand 35,700</td>
</tr>
<tr>
<td>1985</td>
<td>Supply 39,690, Pool 10,642, Demand 37,400</td>
</tr>
</tbody>
</table>

*Expressed in terms of recreation occasions

### TABLE 112
Boating Resources in Region 3, 1974

<table>
<thead>
<tr>
<th>Name</th>
<th>Hectares</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Named Lake</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Number with Public Access</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>Percent with Public Access</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Surface Water Area Suitable for Boating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inland Lake</td>
<td>1,245</td>
<td>3,077</td>
</tr>
<tr>
<td>Mississippi River</td>
<td>8,970</td>
<td>22,166</td>
</tr>
<tr>
<td>Wisconsin River</td>
<td>3,823</td>
<td>9,446</td>
</tr>
<tr>
<td>Total</td>
<td>14,038</td>
<td>34,699</td>
</tr>
</tbody>
</table>

**Note:** The table does not include all relevant data due to the nature of the conversion process.
### Table 113
**Boat Access Sites in Region 3**

<table>
<thead>
<tr>
<th>Ownership/Facility Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td></td>
</tr>
<tr>
<td>Developed</td>
<td>68</td>
</tr>
<tr>
<td>Undeveloped</td>
<td>144</td>
</tr>
<tr>
<td>Type not amenities</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
</tr>
<tr>
<td>Private</td>
<td></td>
</tr>
<tr>
<td>Developed</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>218</td>
</tr>
</tbody>
</table>

### Table 114
**Motor Boating Participation in Region 3 in 1975 and Projected Participation in 1980, 1985 and 1995.**

<table>
<thead>
<tr>
<th>No. of Recreational Occasions Per Average Weekend Day</th>
<th>Participants</th>
<th>1975</th>
<th>1980</th>
<th>1985</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents</td>
<td>2,300</td>
<td></td>
<td>2,400</td>
<td>2,500</td>
<td>2,600</td>
</tr>
<tr>
<td>Nonresidents</td>
<td>4,800</td>
<td>5,100</td>
<td>5,400</td>
<td>5,900</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7,100</td>
<td>7,500</td>
<td>7,900</td>
<td>8,500</td>
<td></td>
</tr>
</tbody>
</table>

### Table 115
**Public Boat Access Site Needs, Region 3, 1975**

<table>
<thead>
<tr>
<th>No. Developed Access Sites</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimum Design*</td>
<td>94</td>
</tr>
<tr>
<td>Supply</td>
<td>74</td>
</tr>
<tr>
<td>Design Need**</td>
<td>20</td>
</tr>
<tr>
<td>Expressed Need***</td>
<td>35</td>
</tr>
</tbody>
</table>

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

**Optimum design less supply.

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

### Table 116
**Canoeing Participation in Region 3 in 1975 and Projected Participation in 1980, 1985 and 1995.**

<table>
<thead>
<tr>
<th>No. of Recreational Occasions Per Average Weekend Day</th>
<th>Participants</th>
<th>1975</th>
<th>1980</th>
<th>1985</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents</td>
<td>2,100</td>
<td>2,200</td>
<td>2,300</td>
<td>2,400</td>
<td></td>
</tr>
<tr>
<td>Nonresidents</td>
<td>1,900</td>
<td>2,000</td>
<td>2,100</td>
<td>2,200</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4,000</td>
<td>4,200</td>
<td>4,400</td>
<td>4,700</td>
<td></td>
</tr>
</tbody>
</table>

### Table 117
**Public Canoe Access Site Needs in Region 3, 1975**

<table>
<thead>
<tr>
<th>No. of Developed and Undeveloped Access Sites</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimum Design*</td>
<td>22</td>
</tr>
<tr>
<td>Existing Supply</td>
<td>13</td>
</tr>
<tr>
<td>Design Need**</td>
<td>9</td>
</tr>
</tbody>
</table>

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

**Optimum design less supply.

### Table 118
**Fishing Participation in Region 3 in 1975 and Projected Participation in 1980, 1985 and 1995.**

<table>
<thead>
<tr>
<th>No. of Recreational Occasions Per Average Weekend Day</th>
<th>Participants</th>
<th>1975</th>
<th>1980</th>
<th>1985</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents</td>
<td>5,200</td>
<td>6,100</td>
<td>6,400</td>
<td>6,800</td>
<td></td>
</tr>
<tr>
<td>Nonresidents</td>
<td>5,000</td>
<td>6,200</td>
<td>6,500</td>
<td>7,200</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>10,200</td>
<td>12,300</td>
<td>12,900</td>
<td>14,000</td>
<td></td>
</tr>
</tbody>
</table>

### Table 119
**Streams and Lakes Suitable for Fishing in Region 3, 1975**

<table>
<thead>
<tr>
<th>Water Type</th>
<th>Kilometers (Miles)</th>
<th>Hectares (Acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trout Streams</td>
<td>932 (579)</td>
<td></td>
</tr>
<tr>
<td>Class I</td>
<td>8 (3)</td>
<td></td>
</tr>
<tr>
<td>Class II</td>
<td>631 (392)</td>
<td></td>
</tr>
<tr>
<td>Class III</td>
<td>233 (142)</td>
<td></td>
</tr>
<tr>
<td>Trout Lakes</td>
<td>-</td>
<td>294 (127)</td>
</tr>
<tr>
<td>Warmwater Streams</td>
<td>3,841 (2,387)</td>
<td></td>
</tr>
<tr>
<td>Warmwater Lakes</td>
<td>-</td>
<td>3,542 (2,023)</td>
</tr>
</tbody>
</table>

### Table 120
**Developed Camping Facilities in Region 3, 1975**

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Sites</th>
<th>Hectares</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>13</td>
<td>1.2</td>
<td>3</td>
</tr>
<tr>
<td>State</td>
<td>1,189</td>
<td>166.7</td>
<td>412</td>
</tr>
<tr>
<td>County</td>
<td>251</td>
<td>38.4*</td>
<td>59*</td>
</tr>
<tr>
<td>Subtotal</td>
<td>1,561</td>
<td>193.3</td>
<td>572</td>
</tr>
<tr>
<td>Municipal</td>
<td>114</td>
<td>8.0*</td>
<td>18*</td>
</tr>
<tr>
<td>Subtotal</td>
<td>1,561</td>
<td>197.3</td>
<td>589</td>
</tr>
<tr>
<td>Private</td>
<td>2137</td>
<td>386.5</td>
<td>708</td>
</tr>
<tr>
<td>Total</td>
<td>5,088</td>
<td>489.8</td>
<td>1,300</td>
</tr>
</tbody>
</table>

*Estimated for Richland Co.
### TABLE 121

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Recreation Occasions Per Average Weekend Day</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residents</td>
<td>6,700</td>
<td>6,900</td>
<td>7,300</td>
<td>7,800</td>
</tr>
<tr>
<td>Nonresidents</td>
<td>14,100</td>
<td>14,760</td>
<td>15,400</td>
<td>16,300</td>
</tr>
<tr>
<td>Total</td>
<td>20,800</td>
<td>21,660</td>
<td>22,700</td>
<td>24,700</td>
</tr>
</tbody>
</table>

### TABLE 122
Picnicking Supply, Demand & Needs By Year, Region 3.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Recreation Occasions Per Average Weekend Day</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants</td>
<td>160</td>
<td>170</td>
<td>180</td>
<td>190</td>
</tr>
<tr>
<td>Residents</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Nonresidents</td>
<td>100</td>
<td>110</td>
<td>120</td>
<td>130</td>
</tr>
<tr>
<td>Total</td>
<td>260</td>
<td>300</td>
<td>340</td>
<td>390</td>
</tr>
</tbody>
</table>

### TABLE 123
Primitive Camping Facilities in Region 3, 1975.

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Sites</th>
<th>Hectares</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td>12</td>
<td>9.3</td>
<td>23</td>
</tr>
<tr>
<td>State</td>
<td>56</td>
<td>5.6</td>
<td>9</td>
</tr>
<tr>
<td>County</td>
<td>7</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Municipal</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>88</td>
<td>12.9</td>
<td>32</td>
</tr>
</tbody>
</table>

*Estimated from average acres/acre reported for state-owned properties.

### TABLE 124
Picnicking Facilities in Region 3, 1975.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Recreation Occasions Per Average Weekend Day</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants</td>
<td>20</td>
<td>30</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>Residents</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Nonresidents</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>45</td>
<td>55</td>
<td>65</td>
</tr>
</tbody>
</table>

*Adjusted for Grant, Green, and Richland Counties.

### TABLE 125

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Recreation Occasions Per Average Weekend Day</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
<tr>
<td>Residents</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
<tr>
<td>Nonresidents</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
<tr>
<td>Total</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
</tbody>
</table>

### TABLE 126

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Recreation Occasions Per Average Weekend Day</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
<tr>
<td>Demand</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
<tr>
<td>Needs</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
<tr>
<td>Total</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
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</table>

### TABLE 127

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Recreation Occasions Per Average Weekend Day</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
<tr>
<td>Demand</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
<tr>
<td>Needs</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
<tr>
<td>Total</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
</tbody>
</table>

### TABLE 128

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Recreation Occasions Per Average Weekend Day</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
<tr>
<td>Demand</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
<tr>
<td>Needs</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
<tr>
<td>Total</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
</tbody>
</table>

### TABLE 129

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Recreation Occasions Per Average Weekend Day</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
<tr>
<td>Demand</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
<tr>
<td>Needs</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
<tr>
<td>Total</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
</tbody>
</table>

### TABLE 130

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>No. of Recreation Occasions Per Average Weekend Day</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
<tr>
<td>Demand</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
<tr>
<td>Needs</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
<tr>
<td>Total</td>
<td>1,075</td>
<td>1,100</td>
<td>1,125</td>
<td>1,150</td>
</tr>
<tr>
<td>Community</td>
<td>County/Site</td>
<td>Other Designations*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------------------------</td>
<td>---------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Casville</td>
<td>Old Dannahup House</td>
<td>HABS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Casville Vicinity</td>
<td>Stonefield</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Platteville</td>
<td>Mitchell/Roentgen House</td>
<td>HABS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Roentgen Hall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monroe</td>
<td>Bingham, Judge John, House</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>First Methodist Church</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jennings, Janet, House</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>West, Gen. Francis, Octagon Hocan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iowa</td>
<td>Iowa County Courthouse</td>
<td>HABS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mineral Point Hill</td>
<td>HABS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mineral Point Historic District</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pendantis</td>
<td>NHL</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shot Tower</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Taliesin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unity Chapel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lafayette</td>
<td>First Capital</td>
<td>HABS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>St. Augustine Church</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richland</td>
<td>German, A. D., Warehouse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank</td>
<td>Ringling Bros. Circus Headquaters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>NHL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* HABS — Historic American Buildings Survey
NHL — National Historic Landmarks

**TABLE 136**

<table>
<thead>
<tr>
<th>Area Open to Hunting in Region 3, 1975</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Owner</strong></td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Public</td>
</tr>
<tr>
<td>Federal</td>
</tr>
<tr>
<td>State</td>
</tr>
<tr>
<td>County</td>
</tr>
<tr>
<td>Municipal</td>
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<tr>
<td>Total</td>
</tr>
<tr>
<td>Private</td>
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132
### TABLE 3.1

<table>
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<th>County</th>
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<th>State Forest</th>
<th>State Public Hunting</th>
<th>County Forest Hunting</th>
<th>County Forest Other</th>
<th>Private Hunting</th>
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<td>Grant</td>
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<td>530</td>
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<td>-</td>
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<td>-</td>
<td>2,090</td>
<td>-</td>
<td>506</td>
<td>130</td>
<td>305</td>
<td>-</td>
<td>-</td>
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<td>-</td>
<td>1,859</td>
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<td>560</td>
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### TABLE 1.2

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<td>Residents</td>
<td>432,100</td>
<td>477,000</td>
<td>447,000</td>
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173
EXCERPTS FROM THE REPORT TO THE SECRETARY OF THE DEPARTMENT OF NATURAL RESOURCES

From
THE CITIZEN'S AD HOC COMMITTEE FOR DEVIL'S LAKE STATE PARK

June, 1978
SUMMARY OF THE COMMITTEE’S RECOMMENDATIONS

The Committee recommends that the design capacity of Devil’s Lake State Park be limited to 8,000 visitors at any one time, that the boundary remain as is, that the South Shore area be devoted to day use and that the current number of family camping sites be retained. The Committee also recognizes that the existing park road system and internal transportation is inadequate and that some improvements can be made.
BACKGROUND

Devil's Lake State Park is located in the Baraboo Hills of Sauk County, fourteen miles south of the City of Baraboo and fifteen miles north of Sauk City-Prairie du Sac.

Wisconsin's first State Park Board of 1907 was directed by the Governor to "make recommendations regarding the acquisition of any new parks." At that time Interstate was Wisconsin's only state park. The Board commissioned John Nolan, a Boston landscape architect, to make recommendations in that regard. In his report to the Board, Nolan identified four major areas that he recommended for state park acquisition. They included: the Dells of the Wisconsin River, Peninsula State Park, Houghton State Park, and Devil's Lake State Park. The Board concurred and all but the Dells became state parks. Devil's Lake became a state park in 1917.

Today Devil's Lake is one of the most popular recreation areas in the midwest. Over 1.4 million people visited the park in 1977 making it by far Wisconsin's most heavily used state park.

In May 1971 Devil's Lake State Park became a unit of the Ice Age National Scientific Reserve when the boundaries for the Reserve were published in the Federal Register. A preliminary master plan for the Reserve was approved by the Natural Resources Board in May 1974. At that time, the Board also approved the current park boundary as recommended in the preliminary Ice Age master plan.

Contained within Devil's Lake State Park is one of the most varied assemblages of geological-glacial features to be found in Wisconsin. The quartzite bluffs of the Baraboo range are among the oldest rocks in the world. Ancient shallow seas covering the area over a billion years ago laid down deposits of sand that eventually became the hard quartzite that has survived many subsequent inundations and erosion cycles. When the Wisconsin glacier advanced into the area 10 to 15 thousand years ago it deposited debris at the north and south ends of the present day lake basin in what was then the Wisconsin River channel, thereby damming and diverting the river into its present channel and creating Devil's Lake. Numerous other glacially derived features are found within the park, including a section of terminal moraine that geologists have called one of the best examples in the world.

Most of the park is wild in character and undeveloped. The south bluff area contains about 3000 acres of forested bluff lands and is one of the most remote areas in southern Wisconsin.

Existing recreational facilities include 471 campsites in 3 family campgrounds, a group campground, group camping facilities, 3 picnic areas, 3 swimming beaches, trails, nature center and a concession.

- 3 -
The present design capacity of the park is 4,814 people at any one time. This number is greatly exceeded on any average summer weekend.

Devil's Lake State Park now has status as both a state park and as an element of the National Park System. It is administered to meet the objectives of both.
MISSION STATEMENTS

DEVIL'S LAKE STATE PARK

Section 27.07 of the Wisconsin Statutes outlines in broad terms the mission or purpose of the state park system. Its language relates quite directly to the older and larger scenic parks. Since Devil's Lake Park is specifically named in the section its language can be applied directly to a park mission statement.

Section 27.07..."The purpose [mission] of the state parks (Devil's Lake) is to provide areas for public recreation and for public education in conservation and nature study."

In addition to directing the Department to acquire lands and waters for state park purposes, Section 27.01 directs the Department to "classify state parks as to their most logical employment and greatest usefulness as, for example, scenic, recreational or historical, and establish boundaries for each state park."

NR 1.30, Wisconsin Administrative Code, classifies the state parks as follows:

1. Scenic parks
2. Historical memorial parks
3. Roadside parks
4. Recreation parks
5. Park trails parks

Scenic parks, as Devil's Lake is classed, are defined as follows in NR 1.30(a): "Scenic Parks. Parks having unusual scenic charm and beauty, distinctive landscapes, and particular appeal to nature lovers, and of sufficient size to enable use by large numbers of people without destruction of the qualities essential to their purpose.

ICE AGE NATIONAL SCIENTIFIC RESERVE

Public Law 88-165 (Ice Age National Scientific Reserve) states that it is the purpose of the act "to assure protection, preservation, and interpretation of the nationally significant values of Wisconsin's continental glaciation, including moraines, eskers, kames, kettleholes, drumlins, swamps, lakes and other reminders of the ice age."

The mission statement for the park consists of the above underlined sections of federal law, state law and administrative code.
PLANNING GUIDELINES

The language of Chapter 27, Wisconsin Statutes, VR 1.30 and NR 45 of the Wisconsin Administrative Code and the Ice Age National Scientific Reserve Act make it very clear that the Department is required to develop and manage Devil's Lake State Park to both accommodate large numbers of people for recreational purposes and to provide interpretive facilities and to do it in such a manner that the preservation of the geologic and other natural features of the area is not compromised.

The present level of use of the park, the inadequacy of the present road system and the concentration of both day use and camping close to the lake shore make it apparent that long-range carefully planned changes designed to make it possible to limit the numbers of people using the park are necessary if the Department is to meet its statutory obligations.

It is, therefore, recommended that the following guidelines be used in the development of the master plan for Devil's Lake State Park:

A. Design Capacity

The committee recommends that Devil's Lake State Park be developed at a design capacity of about 8,000 people at any one time, and provide for usage of about 1.2 - 1.4 million visitations during the period from May 15 to September 15. This design capacity will accommodate expected off-season use.

B. Land Acquisition

The committee recommends that:

As a long range principle, the committee recommends that Devil's Lake State Park should contain all of the scientifically, educationally, recreationally and scenicly significant land in the vicinity of Devil's Lake.

For the near future, except for minor modifications, the present boundary for Devil's Lake State Park should remain in effect.

All land within the park boundaries should ultimately be owned in its entirety. Because complete ownership is not immediately possible, use should be made of options, land purchases subject to a life or lives in being, the right to meet other bona fide purchase offers, the right of first refusal, purchases and lease backs, easements, zoning, and such other legal tools as will protect the land of eventual incorporation into the park.

Condemnation should be used only as a last resort to prevent the use of land within the boundaries of the park in a manner incompatible with its ultimate incorporation into the park.
Negotiations with landowners for the purchase of their land should be carried out in a good faith and open manner. They should be offered the full fair market value for their land - no less and no more.

C. Land Use

A substantial portion of the park should be designated as preservation area of various types under the Natural Resources Board Wild Resources Policy (Manual Code 1031).

Steinke Basin is very valuable for its glacial features and solitude. It should not be used for a campground or any development other than trails.

There should be no development on the west bluff except for unobtrusive interpretive signs.

B. Hunting

Hunting should be allowed in some areas of the park, at times when it would not be incompatible with other uses of the park.

E. Accessibility

The centers of attraction in the park should, so far as is reasonably possible, be made accessible to the aged and infirm.

F. Day Use

The present south shore day use and campground area should be redesigned for day use only.

The department should explore redesign of the north shore day use area to provide for closure of the day use area during normal park closed hours.

In developing the south shore, the natural environment shall be disturbed as little as possible, in particular the woods and beach south and west of the present bathhouse should have no developments.

G. Camping

The plan should provide for approximately the same number of family campsites as are provided at this time (471 at present).

Camping should be eliminated from the south shore.

The plan should provide for continuance of the present indoor group camp and should also provide an area for tent camping for large organized groups, i.e., boy and girl scouts.
Provisions should be made for pack-in primitive campsites.

H. Trails

Viking trails, nature and interpretive trails, cross-country ski trails and bicycle trails, which are now provided, should be expanded. Also, snowshoe trails should be provided if demand justifies. Provisions should be made for horse trails, however, special consideration should be given to topography and soil conditions.

Provisions should also be made for a pass through snowmobile trail.

I. Interpretation

The park should have a major Ice Age interpretive center well away from the park's scenic amenities, and integrated with the park administrative facilities.

The existing park nature center should be retained at least for the next several years to augment and complement the Ice Age interpretive center.

J. Road System and Internal Transportation

Considering present and projected use of the park, the present road system both inside and immediately adjacent to the park does not provide for safe and efficient movement of large volumes of traffic.

It is recognized that financial (and jurisdictional) limitations preclude immediate major road system redevelopment, however, it is necessary that long-range road system guidelines be established which will address safety and efficient management requirements.

It is also recognized that short-range improvements can be made which will substantially reduce traffic problems relating to safety, public convenience and efficient management.

In view of the preservation mission of the park and requirements of the Environmental Protection Acts (state and federal), there should be as few roads inside the park as possible. All roads within the park should be rustic in character and practical use of one-way roads should be made.

Ideally there should be as few through roads in the park as possible.

There should be sufficient parking within walking distance of the day-use facilities to accommodate normal weekday use. Additional parking should be provided elsewhere in the park and the feasibility of alternate internal park transportation should be studied.

The Ice Age Interpretive Center/Park Headquarters should be located near the north end of South Shore Road.

The attached schematic plan is recommended by the committee.
In October, 1977, 6000 survey forms were sent to parties who had camped at Devil's Lake State Park between May and September, 1977. 2,468 completed surveys were returned. The names were randomly sampled from the park's registration records.

A cover letter explained the reason for the survey and asked them to describe only their most recent visit if they camped at Devil's Lake more than once during the year.

The information was coded and computerized. Selected results are as follows. All percentages were rounded to the nearest whole number.

**QUESTION**

1. To begin, when was your most recent visit to Devil's Lake?

   - May 95
   - June 195
   - July 315
   - August 285
   - Sept. 125

2. How many people were there in your camping party?

   - 0 295
   - 1 125
   - 2 235
   - 3 135

**How would you classify your camping party?**

   - Family 635
   - Non-Family 215
   - Mixed 165
3. How did you get to Devil's Lake State Park?
   Car - 92%
   Camper - 7%

4. Did you have any problem getting into the park from the highway?
   No - 95%

5. Was this your first visit ever to the park?
   Yes - 95%
   No - 7%

If not the first, about how many times have you ever been to Devil’s Lake?

- 2 - 11%
- 3 - 9%
- 10 - 6%

6. What kind of camping equipment did you use?
   Tent - 60%
   Tent/trailer - 20%
   Travel trailer - 9%
   Pickup camper - 9%
   Van - 3%
   Motor Home - 6%

7. What route did you take to get to the park?
   Primary route - Hwy 33 from the East 815
   Hwy 12 from the South 245
   Hwy 12 from the North 195
   Hwy 113 from the South 205
Secondary Route: Hwy 127  -  405
Hwy 159  -  245
Ski-Hi Rd.  -  115
Co. Hwy. 36  -  75
S. S. Rd. from E. 145

Destination shores for camping - North 645
South 365

8. What were the major attractions of the park for your party?
   a. Camping  -  90%
   b. Other Rec. activity  -  35%
   c. The Environment  -  82%
   d. Loc./convenience  -  39%
   e. Clean facilities, safety, etc.  -  48%
   f. Sunbathing  -  24%
   g. Other  -  12

9. What did you do at the park?

<table>
<thead>
<tr>
<th>Primary</th>
<th>Checked</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Sightseeing</td>
<td>65%</td>
</tr>
<tr>
<td>b. Relaxing</td>
<td>15%</td>
</tr>
<tr>
<td>c. Swimming</td>
<td>8%</td>
</tr>
<tr>
<td>d. Hiking</td>
<td>14%</td>
</tr>
<tr>
<td>e. Nature study</td>
<td>1</td>
</tr>
<tr>
<td>f. Boating</td>
<td>1</td>
</tr>
<tr>
<td>g. Canoeing</td>
<td>10%</td>
</tr>
<tr>
<td>h. Picnicking</td>
<td>7%</td>
</tr>
</tbody>
</table>

10. How many nights did you stay at Devil's Lake?
    1. 143
    2. 315
    3. 425
    4. 75
11. Was this the main destination of your trip?

Yes - 415
No - 105

12. Would you please estimate your party's expenditures in the communities outside the park. These communities include Baraboo, Wisconsin Dells, Lake Delton, Merrimac, Sauk City, and Prairie du Sac. (This may be difficult to answer. Your best estimate will do, however.)

The following categories were listed: lodging, restaurants and taverns, souvenirs and gifts, food stores, auto and related expenses, sporting goods, amusement admission fees.

In each category, the greatest percentage of the people indicated they spent only 50-5.

13. Did you visit other attractions in the Devil's Lake area?

Yes - 555
No - 455

The two most frequently mentioned attractions were Wisconsin Dells in general (23% of those who visited other attractions) and the Circus World Museum (28%).

14. Would you please give some information about yourself?

Current residence: Cook Co., IL 222
Milwaukee Co. 82
Dane Co. 92
DuPage Co., IL 62
Sauk Co. 12

Age:
0-17 25
18-24 28C
25-44 347
45-64 152
65 & over 22

Your family size:
Single 325
2 (H & V) 185
3 132
4 117
5 135
6 65

15. If there were fewer camping sites available at the Park so that your chance of getting a site was less than it is now, would you come anyway?

Yes 47
No 357
Yes - would make reservation - 135
Yes - Would go to private campground - 12
16. If, in the future, you were unable to get a campsite in the Park, would you stay in a private campground in the area and just use the park for the lake, beach, etc.?  
Yes - 37  
No - 57
17. As you know, prices and costs of everything are going up rapidly. What, in today's prices, is the maximum you think you would pay to stay per night at Devil's Lake State Park?  
4.00 - 4.05  
5.00 - 5.25  
6.00 - 7.00  
9.00 - 10.00  
18. What did you like most about the Park?  
Natural environment - 39%  
Eating trails - 8%  
Camping facilities - 7%
19. What do you think could be improved in the Park?  
Quality of campsites - 45%  
More showers - 11%  
Visitor services - 13%  
Beaches - 6%  
Road conditions - 6%  
Traffic control - 4%  
Reservation system - 5%
20. What would you like to see offered in the area surrounding the park that would make your stay more pleasant and meaningful?  
Nothing - 28%  
Less commercialism - 24%  
Nighttime entertainment - 11%  
More restaurants, taverns, stores - 11%
21. It is reasonable to limit the number of people within the Park by turning away cars at the entrance when the Park is full.  
Strongly Disagree - 57%  
Disagree - 27%  
No opinion - 8%  
Agree - 4%  
Strongly Agree - 3%
22. Most of the circulation within the Park should be by foot, bicycle, or shuttle bus.

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<thead>
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<th>Strongly Disagree</th>
<th>85</th>
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</thead>
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<tr>
<td>No opinion</td>
<td>75</td>
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<tr>
<td>Agree</td>
<td>145</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>275</td>
</tr>
</tbody>
</table>

23. Campsites should be located within sight of one another.

<table>
<thead>
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<th>Strongly disagree</th>
<th>145</th>
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</thead>
<tbody>
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<td>Disagree</td>
<td>285</td>
</tr>
<tr>
<td>No opinion</td>
<td>145</td>
</tr>
<tr>
<td>Agree</td>
<td>375</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>6</td>
</tr>
</tbody>
</table>

24. Campsites should be provided for large groups.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>85</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>135</td>
</tr>
<tr>
<td>No opinion</td>
<td>145</td>
</tr>
<tr>
<td>Agree</td>
<td>485</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>165</td>
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</table>

25. Hiking trails in the Park should be as primitive as possible.

<table>
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<th>25</th>
</tr>
</thead>
<tbody>
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<tr>
<td>No opinion</td>
<td>75</td>
</tr>
<tr>
<td>Agree</td>
<td>145</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>505</td>
</tr>
</tbody>
</table>

26. Sanitation facilities should be provided along hiking trails.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>125</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>265</td>
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<tr>
<td>No opinion</td>
<td>155</td>
</tr>
<tr>
<td>Agree</td>
<td>375</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>95</td>
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</table>

27. Concession stands should include more products.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>95</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
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<tr>
<td>No opinion</td>
<td>385</td>
</tr>
<tr>
<td>Agree</td>
<td>205</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>65</td>
</tr>
</tbody>
</table>

28. More interpretive programs should be offered.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>165</td>
</tr>
<tr>
<td>No opinion</td>
<td>145</td>
</tr>
<tr>
<td>Agree</td>
<td>365</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>95</td>
</tr>
</tbody>
</table>
29. From the descriptions A through E below, which one best describes
the outdoor recreation experience you most prefer (check one):
A. I enjoy visiting areas where I can engage in activities
   with other individuals and groups. ....................... 6 %.
B. I enjoy areas where few outdoor skills are required. .... 7 %
C. I enjoy areas that allow me to be close to nature. ....... 51 %
D. I enjoy the adventure and challenge of going into
   areas without motorized access. ..................... 20 %
E. I enjoy exploring areas that are difficult to reach
   and require physical effort & skill. ................... 16 %

30. 1,107 people made additional comments. Positive comments
    (liked the following):
    Cleanliness of toilets. .................. 5% (of 1,107)
    Visitor services. ...................... 45 %
    Natural resources. ...................... 35 %
    Camping facilities. ...................... 25 %

Negative comments (did not like the following - or
    Suggestion for improvement):
    Should develop more primitive campsites. .... 10 %
    Visitor services ......................... 7 %
    Need more campsites. .................... 7 %
    Reduce stereo noise. ..................... 6 %
    Too many out-of-state users. ............. 6 %

The answers to 19 of the questions were cross-tabulated with answers
from all or some of the other questions. Following are my interpretations
of some of the highlights.

1. The most common (highest percentage of total) length of stay was
   2 nights for all months, May through September. In May and
   September the second most common length of stay was 1 night. In June,
   July, and August. The second most common was 3.

2. The major attraction of the park varies little by the month other than the
   fact that May and September campers are less concerned with safety
   and clean facilities.

3. No doubt because of the school year, there is a variation in the
   age and type of party between summer (June, July, August) - the
   higher percentage of families and 25-64 age group category highest
   percentage - and May & September.

4. The unmarried camper is more likely to go to the south shore than to
   the north shore.

5. The larger the group size, the more significant other (than camping)
   recreational activities become as far as being major attractions of
   the park. Camping is also not the primary activity for singles (23% versus
   45% overall)
7. Of the campers that checked "Other Recreation Activity Opportunities" (33%) as a major attraction, only 20% of those over age 65 checked it and 57% of those under age 18 checked it.

8. Safety and cleanliness of facilities increase in importance with age as a major attraction.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>48%</td>
</tr>
<tr>
<td>Under age 18</td>
<td>30%</td>
</tr>
<tr>
<td>Over age 65</td>
<td>64%</td>
</tr>
</tbody>
</table>

9. Young campers are less likely to visit other area attractions.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>55%</td>
</tr>
<tr>
<td>Under age 18</td>
<td>22%</td>
</tr>
</tbody>
</table>

10. Should campers be within sight of one another?

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under age 18</td>
<td>17%</td>
</tr>
<tr>
<td>Age 25-44</td>
<td>35%</td>
</tr>
<tr>
<td>Over 65</td>
<td>60%</td>
</tr>
</tbody>
</table>

11. Should hiking trails be as primitive as possible?

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under age 18</td>
<td>37%</td>
</tr>
<tr>
<td>Over age 65</td>
<td>60%</td>
</tr>
</tbody>
</table>

However, under age 18 - 41% strongly agree, and over 65 - 10% strongly agree.

12. Should more interpretive programs be offered?

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under age 18</td>
<td>64%</td>
</tr>
<tr>
<td>Over age 65</td>
<td>24%</td>
</tr>
</tbody>
</table>

13. Concerning the type of outdoor recreational experience sought, most (55%) wanted a middle of the road experience. Of those seeking a rugged experience, the percentage decreased with age. Similarly, of those seeking a controlled, safe, more social experience, the percentage increased with age.

14. A surprising number (40%) of the campers agreed with the statement "It is reasonable to limit the number of people within the park by turning away cars at the entrance when the park is full." Those seeking a controlled experience were more likely to agree (55%) than those seeking a rugged experience (15%).

15. Seemingly contradictory is the fact that those desiring the rugged experience are more likely (43%) to strongly agree with limiting internal park circulation to foot, bike or shuttle than those seeking a controlled experience (13%).
16. Other recreation activity opportunities are a major attraction of the park more for those who have camped here before (33%) than for first time visitors (25%).

The same is also true for the major attractions of natural environment, location, and cleanliness of the facilities.

17. Camping was the primary activity for 42% of the first time visitors and 48% of the repeaters.

Sightseeing was the primary activity of first visitors more than repeaters 12% vs. 4%, but the repeaters indicated relaxing (17% vs. 12%), swimming (9% vs. 6%), and hiking (15% vs. 11%) were their primary activity more so than first timers.

18. Single campers like it here. 33% of the first time visitors were single while 33% of those who had been here before were single.

19. Of those who camped here just once, 11% came via Hwy. 33 East and 24% from Hwy. 12 South. However, of those who camped 5-10 times, 21% came on Hwy 33, and 36% on Hwy. 12.

20. 12% of those that camped here only once sought a rugged recreational experience compared to 25% of those that camped 5-10 times.

21. People camped in pickup campers were more likely to list sightseeing and less likely to check swimming as a major attraction, as compared to campers with other types of units.

22. Those with pickup campers and motor homes were more likely to stay just one night. Devil's Lake was less frequently their ultimate destination. Those with tent trailers stayed the greatest number of nights.

23. Tents were the most popular type of camping unit for those under 18 (93%) and the least popular for those over 65 (10%).

Tent trailers are most popular for those 45-64 years of age.

Motor homes are primarily owned by those over 65.

24. Those most likely to agree with the statement "Campsites should be located within site of one another" are most likely to own a tent trailer (40%).

25. Large groups were most likely to feel a need for improvement in visitor services.

26. Families (as opposed to non-families) were less likely to want to see better private campgrounds, nighttime entertainment, and less commercialism in the area around the park.
Mr. Bill Moorman  
Mr. Stephen Hanson  
Department of Natural Resources  
P. O. Box 7921  
Madison, Wisconsin  
53701  

Dear Sirs:  

On Thursday, August 9, Dorothy Berlin and I from Sauk County Planning and Zoning, along with D.N.R. personnel inspected pits for a septic system for the proposed Devil's Lake Nature Interpretation Center.  

The soil type in the area investigated was a Baraboo stony. All pits dug in this area showed some limiting factor to the installation of a conventional septic system, either bedrock or mottling was evidenced at a depth of less than 3 feet.  

A mound system would be the only suitable system for this site providing variance from the proper authorities can be obtained.  

Soils were then investigated for the possibility of a mound installation. The proposed area for this mound was east of the proposed building site and downslope from it. The most northwest pit showed mottling at 35". The second pit was located 300' south of pit #1 and showed mottling at 24". The third pit is 120' northeast of pit #2 and mottling was visible at 26". Pit #4 is 165' north of pit #3 and mottling was evident in this pit at 23". The slope in the area was 5% to the east.  

A mound system would seem feasible in this area and would be the recommended system for this site.  

Sincerely,  

Jos. Van Berkel  
Soils Analyst  

JVB/mw
August 24, 1979

J. O. Slack
Department of Natural Resources

James Sargent, Chief
Section of Plumbing and Fire Protection Systems

Devil's Lake State Park Development - Sauk County

Mound systems cannot be approved for new construction of public buildings at this time. As a result of a lawsuit brought by an environmental group against the Department of Health and Social Services, the judge restricted the number of mounds for new residences and prohibited mound systems for new commercial buildings. An Environmental Impact Statement regarding the use of mound systems has been written. After it is released and public hearings are held, a decision will be made. A mound cannot be approved for the Devil's Lake Facility at this time.

JS:JP:1s
APPENDIX 3

Legislative Acts

Public Law 88-655
88th Congress, H. R. 1096
October 13, 1964

An Act
N. Y. S. 20, 1967,

To authorize the Secretary of the Interior to cooperate with the States of Wisconsin, in cooperation with the Secretary of the Interior, in the designation and administration of the Ice Age National Scientific Reserve in the State of Wisconsin, and for other purposes.

Sec. 1. (a) To effectuate the purpose of this Act, the Secretary of the Interior (hereinafter called the "Secretary"), in cooperation with the States and local governmental authorities of Wisconsin, may formulate within two years after the Act takes effect a comprehensive plan for the protection, preservation, and interpretation of outstanding examples of continental glaciation in Wisconsin; but he shall not spend more than $50,000 of Federal funds therefor.

(b) When the comprehensive plan is completed and the Secretary is satisfied that State legislation exists for the preservation of the nationally significant features of the reserve, upon the request of the President of the Senate and the Speaker of the House of Representatives, and may, ninety days thereafter and after consulting with the Governor of the State of Wisconsin, publish notice in the Federal Register of the establishment of the Ice Age National Scientific Reserve and of the boundaries thereof, which boundaries shall comprise lands owned or to be acquired by the State and local governments of Wisconsin in the following areas:

1. Eastern area (portions of the northern unit of the Kettle Moraine State Forest and Campbellsport drumlin area);
2. Central area (portions of Devil's Lake State Park);
3. Northwest area (portions of Chippewa County);
4. Southern area (other areas in the State of Wisconsin which the Secretary and the Governor of Wisconsin agree upon as significant examples of continental glaciation).

(c) Any area outside of the national forest that the Secretary and the Governor of Wisconsin agree has significant examples of continental glaciation but not observed in the original notice may be included in the reserve by the Secretary after notice to the President of the Senate and the Speaker of the House of Representatives and publication in the Federal Register, as heretofore provided, and areas that they consider to be no longer desirable as part of the reserve may be excluded from it by the Secretary in the same manner.

Sec. 2. The Secretary may grant financial assistance to the State of Wisconsin for its acquisition of lands and interests in lands lying within the area designated as the reserve. Any grant made under this section shall be only for lands or interests in land acquired by the State after establishment of the reserve, as provided in section 3, subsection (6), of this Act, and the total of all grants under this section shall not exceed $750,000 or 50 per cent of the fair market value of the lands or interests in land so acquired, including incidental acquisition costs, whichever is less, and shall be subject to terms and conditions prescribed by the Secretary.

The comprehensive plan prepared by the Secretary in accordance with the provisions of section 1, subsection (a), of this Act, and the total of all grants under this section, shall be submitted to the President of the Senate and the Speaker of the House of Representatives for consideration. Such recommendations, if any, as he and the Governor of the State of Wisconsin may wish to make with respect to financial assistance to Wisconsin.
PACIFIC AND SOUTHERN TERMINAL CORPORATION
TERMINATION OF CONTRIBUTIONS

(A) Whenever the Secretary determines that appropriate management and protection set down in the comprehensive plan are not being afforded the nationally significant values within the reserve or that funds are not being provided on the prescribed matching basis by the State of Wisconsin or other non-Federal sources, he may terminate contributions under this Act,

(B) Any payment made by the Secretary under the provisions of subsection (3) of section 3 of the Act shall be made subject to the understanding and agreement by the State of Wisconsin that the conversion, use, or disposal, for purposes contrary to the purposes of this Act, as determined by the Secretary, of any land acquired by said State with funds supplied in part by the United States pursuant to said subsection, shall result in a right of the United States to compensation therefor from said State in the amount of one-half of the fair market value of the land, exclusive of any improvements thereon, as determined at the time of such conversion, use, or disposal.

APPROPRIATION

SEC. 6. There are hereby authorized to be appropriated, not to exceed $800,000 to carry out the provisions of this Act.


LEGISLATIVE HISTORY

HOUSE REPORT No. 941 (Comm. on Interior & Insular Affairs), Senate Report No. 1256 (Comm. on Interior & Insular Affairs, Appropriations Bill 1965). Pub. No. 110 (1964)

Feb. 17, 1965; Apr. 15, 1965; June 22, 1965, considered and passed Senate.

Act 161-62
Public Law 91-463
91st Congress, H. R. 6172
October 21, 1970

An Act
To authorize the Secretary of the Interior to provide financial assistance for development and operation costs of the Ice Age National Scientific Reserve in the State of Wisconsin, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Act of October 18, 1964 (20 Stat. 1087) is amended as follows:

(1) Section 3 is reenacted.
(2) Section 4 is amended by deleting everything after the word "amounts" and inserting the word "corporation."
(3) Section 6 is amended to read as follows:
"Sec. 6. (a) The Secretary is authorized to provide technical assistance to the State of Wisconsin for planning and development of the reserve in accordance with the comprehensive plan.

"(b) In addition to grants pursuant to the Land and Water Conservation Fund Act of 1965 (20 Stat. 897; 16 USC 460-i), the Secretary is authorized to make payments not to exceed $50 per acre of the actual cost of such development work within the reserve in accordance with the comprehensive plan provided that the maximum amount of such grants for all projects shall not exceed $100,000.

"(c) The Secretary, pursuant to an agreement with the State of Wisconsin, may pay up to 50 percent of the annual cost of management, protection, maintenance, and rehabilitation of the reserve.

"(d) Whenever the 5-century determinations that appropriate amounts and protection are shown in the comprehensive plan are not being afforded the scientifically significant values within the reserve or that funds are not being provided or the prescribed matching funds for the projects of the Wisconsin - other non-Federal sources, he may terminate contributions under this Act."

"(e) Section 6 is repealed.

Approved October 21, 1970.

LEGISLATIVE HISTORY

H职权 REPOB. NO. 91-98 (Comm. on Interior and Insular Affairs), SRISE SPOB. No. 91-130 (Comm. on Interior and Insular Affairs), CONGRESSINAL RECORD, Vol. 116 (1970).

Aug. 20, considered and passed House.
Oct. 7, considered and passed Senate.
Management Agreement

AGREEMENT BETWEEN THE SECRETARY OF THE INTERIOR AND THE STATE OF WISCONSIN FOR THE DEVELOPMENT, MANAGEMENT, PROTECTION, MAINTENANCE AND REHABILITATION OF ICE AGE NATIONAL SCIENTIFIC RESERVE

This Agreement, made and entered into this 25th day of September, 1972, by and between the Secretary of the Interior, hereinafter referred to as Secretary, and the State of Wisconsin, hereinafter referred to as State.

WITNESSETH

WHEREAS, Public Law 88-655 (78 Stat. 1087) authorizes the Secretary of the Interior to cooperate with the State of Wisconsin in the designation and administration of the Ice Age National Scientific Reserve in the State of Wisconsin; and

WHEREAS, Public Law 91-403 (84 Stat. 1083) authorizes the Secretary of the Interior to provide financial assistance for development of the Ice Age National Scientific Reserve; and

WHEREAS, the above legislation provides that the Secretary of the Interior, pursuant to an agreement with the State of Wisconsin, may pay up to 50 per centum of the annual cost of management, protection, maintenance and rehabilitation of the Reserve; and

WHEREAS, the Secretary of the Interior and the State of Wisconsin are desirous of cooperating to assure the protection, preservation and interpretation of the nationally significant values of Wisconsin continental glaciation, including moraines, eskers, kames, kettleholes, drumlins, swamps, lakes, and other natural phenomena of the Ice age; and

WHEREAS, the Secretary and the State through the National Park Service (NPS) and the Wisconsin Department of Natural Resources (DNR), their respective representatives, have formulated a Comprehensive Plan for the Ice Age National Scientific Reserve and further desire to cooperate in the management, protection and development of the Ice Age National Scientific Reserve;

NOW, THEREFORE, the Secretary and the State mutually agree as follows:
1. Objects of Agreement: This agreement is intended to provide
for the acquisition, development, operation and financing of
the Ice Age National Scientific Reserve, and for orderly and
harmonious cooperation between the National Park Service of the
United States Department of the Interior, and the Wisconsin
Department of Natural Resources, in implementing the provisions
of Public Laws 88-655 and 91-483 and the Comprehensive Plan for
the Ice Age National Scientific Reserve.

2. General Planning Procedure: Although planning in general
is the joint responsibility of the NPS and the DNR, specific
responsibility for certain phases of planning shall be the prime
responsibility of one or the other agency as set forth herein.
Each agency shall finance its own planning work and shall consult
with and secure review and approval of the plans for each other.

3. Master Plan: A detailed Master Plan and an Interpretive
Prospectus shall be prepared by NPS for the Reserve. The Master
Plan and Interpretive Prospectus shall be programmed for completion
during Fiscal Year 1973.

4. Detailed Site Plans: Detailed site planning to implement the
schematic development plans of the Master Plan shall be prepared
by DNR as shall all construction drawings.

5. Land Acquisition: The DNR shall have sole responsibility for
all land acquisition, including appraisals, negotiations, obtaining
of options, recordation of deeds, and initiation of applications
for Federal grants-in-aid under the Land and Water Conservation
Fund. Title to all real property acquired shall be taken in the
name of the State of Wisconsin.

6. Land Acquisition Financing: All acquisitions of real property
by DNR for inclusion in the Reserve shall be financed through
applications for acquisition project grants-in-aid under the Land
and Water Conservation Fund. Such grants-in-aid shall be based upon
the regular Land and Water Conservation Fund procedure under which
50% of the acquisition cost is borne by the applicant and the
remaining 50% is derived from the state's apportionment of the Land
and Water Conservation Fund.

7. Development Financing: The cost of outdoor recreation
development projects within the Reserve shall be financed in the
following manner: 25% of the project cost shall be borne by the
State, 25% of the project cost shall be borne by the NPS out of
appropriated construction funds, and the remaining 50% of the
project cost shall be derived from the state's apportioned share of the Federal Land and Water Conservation Fund. Provided, that the maximum amount of such development project costs to be paid directly by NPS for all such projects shall not exceed $425,000. At each development project is programmed, the DNR will advise the NPS by September 1 of each year of the engineering estimates for allocation of funds by the Service in the following fiscal year. The transfer of funds for expenditures incurred by DNR shall be by quarterly billing to the NPS Finance Office of the Northeast Region, National Park Service.

8. Costs of Operation and Maintenance: The annual cost of management, protection, maintenance and rehabilitation of the Reserve shall be shared equally by DNR and NPS with the NPS 50% share being derived from funds appropriated specifically for this purpose. The DNR will advise NPS by August 15 of each year of budgeted funds required for the following federal fiscal year. The following chart specifies the procedure.

<table>
<thead>
<tr>
<th>Funding required for Federal FY</th>
<th>Cost Figures to be provided by:</th>
<th>To assure that funds will be available on:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974</td>
<td>August 15, 1972</td>
<td>July 1, 1973</td>
</tr>
<tr>
<td>1975</td>
<td>August 15, 1973</td>
<td>July 1, 1974</td>
</tr>
<tr>
<td>1976</td>
<td>August 15, 1974</td>
<td>July 1, 1975</td>
</tr>
</tbody>
</table>

etc., etc., etc.

The DNR request for funding assistance shall be transmitted to the Director, Northeast Region, via memorandum in the following format:

Requirements by the State of Wisconsin for the National Park Service share of management, protection, maintenance and rehabilitation for the Federal Fiscal Year (July 1, ____ thru June 30, ____ ) are as follows:

<table>
<thead>
<tr>
<th>Management &amp; Protection</th>
<th>$ __________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Services</td>
<td>$ __________________</td>
</tr>
<tr>
<td>Other related expenses</td>
<td>$ __________________</td>
</tr>
</tbody>
</table>

| Buildings & Utilities Maintenance | $ __________________            |
| Personal Services             | $ __________________            |
| Other related expenses        | $ __________________            |
Roads & Trail Maintenance
Personal Services $_________
Other related expenses   $_________
Grand Total $_________

The above figures are based on 50% of the direct costs incurred by the State of Wisconsin in conducting the Management and Operation of the Ice Age National Scientific Reserve in accordance with the legislation contained in Public Law 88-655, October 13, 1964, as amended by Public Law 91-433, October 21, 1970.

The DNR will bill NPS quarterly for its share of the annual costs as prescribed above by a method to be agreed upon between the finance offices of DNR and NPS (Northeast Region).

9. Ice Age Trail: The NPS and DNR shall jointly assist the Ice Age Park and Trail Foundation in a study of the proposes Ice Age Trail in Wisconsin.

10. NPS Review of Land and Water Conservation Fund Projects: The DNR shall submit all Land and Water Conservation Fund project proposals for acquisition within the Reserve to the NPS for review and concurrence at the time the project proposals are sent to the Bureau of Outdoor Recreation, Department of the Interior.

11. Development of Facilities: The DNR shall have overall responsibility for development of facilities in the Reserve. It shall determine development priority based upon land control and needs, and shall be responsible for preparation and administration of construction contracts in accordance with Land and Water Conservation Fund grant requirements. Construction drawings and development proposals shall be prepared by the DNR and submitted to the NPS for review and approval prior to submission to the Bureau of Outdoor Recreation for Land and Water Conservation Fund Grants. The DNR shall notify the NPS when BOR grant approval is received. The NPS shall budget for and construct interpretive exhibits and audio visual aids with construction to be financed from appropriated funds. The NPS shall notify the DNR of annual expenditures for this purpose.
12. Interpretive Programs: Interpretive programs are a key element in the Comprehensive Plan for the Reserve and shall play a major role in the operation of the Reserve. The NPS will provide the expertise and information necessary to carry on interpretive programs. The DNR shall place particular stress and emphasis upon Ice Age interpretation, correlating such interpretation to the Ice Age where possible. Informational and interpretive brochures shall be prepared by the NPS in order to insure that the entire program for the Reserve is based upon the most up-to-date scientific knowledge and current research.

13. Operation and Maintenance: Overall administration and management of the Reserve shall be the responsibility of the DNR and the actual operation and maintenance shall be carried out by employees of DNR. The NPS shall conduct biennial reviews of the administration and management of the Reserve.

14. Recreational Activities: Outdoor recreational activities shall be permitted throughout the Reserve: Provided, however, that such activities shall be compatible with preservation of the Ice Age resources.

15. Jurisdiction Over the Reserve: The individual units of the Ice Age National Scientific Reserve are state areas subject to the normal requirements of Wisconsin law with respect to such matters as use fees, state or local taxes, licensing and wildlife management, provided, however, that such areas shall remain subject to applicable Federal regulations regarding migratory birds.

16. Golden Eagle Passport: In recognition of the substantial Federal investment in the financing of the acquisition, development and operation of the Reserve, and the national significance of the Reserve, the Golden Eagle Passport or equivalent annual passport or sticker shall be honored throughout the Reserve so as to permit entrance into the Reserve without the necessity of paying any entrance fee that might be otherwise required by the State. Holders of a Golden Eagle Passport will be required, however, to pay any other fees imposed by the DNR for use of facilities within the Reserve, it being intended that the Golden Eagle Passport shall be accepted in lieu of an entrance fee only.

17. Exchange of Personnel or Equipment: To the extent permissible, NPS and DNR may cooperate in the assignment of personnel or equipment in order to carry out the responsibilities of the respective parties under the terms of this agreement.
18. Exchange of Information: The DNR and the NPS shall make available to each other any additional information relating to the Reserve that is not otherwise specifically provided for in this agreement.

19. Nondiscrimination: The State of Wisconsin shall not discriminate against any person on the basis of race, color, or national origin in the use of any property or facility acquired, developed or operated pursuant to this agreement, and the State further agrees to comply with the terms and intent of Title VI of the Civil Rights Act of 1964, (78 Stat. 241), and with the regulations promulgated pursuant to such Act by the Secretary of the Interior and contained in 43 CFR 17.

20. Equal Opportunity: In all construction contracts entered into by the State relating to the Reserve which are either directly or indirectly Federally assisted, there shall be incorporated therein the Equal Opportunity clause provided for in 41 CFR 1-12.803.

21. Officials Not be Benefit: No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

22. Periodic Review: This agreement shall become effective when signed by the parties hereto and shall continue in force until terminated by mutual agreement or at the option of either party upon one year's notice given in writing upon any anniversary date hereof. The agreement shall be reviewed by the NPS and the DNR biennially and at such other times as may be requested by either party on 60 days' written notice.

23. Liaison and Coordination Responsibility: To provide for a primary point of contact between DNR and the NPS, the Director of the Bureau of Parks and Recreation of DNR and the Assistant to the Director in charge of the Chicago Field Office of the NPS are assigned.

24. Availability of Funds: Nothing herein contained shall be construed as binding the Secretary of the Interior to expend in any one fiscal year any sum in excess of appropriations made by Congress for that fiscal year, or to involve the United States in any contract or other obligation for the future expenditure of money in excess of such appropriations. Funds for cost sharing shall be requested by the parties hereto.
IN WITNESS WHEREOF, the parties hereto cause this agreement to be executed on the date hereinabove first set forth.

/s/ Roger C. B. Morton  /s/ Patrick J. Lucey
SECRETARY OF THE INTERIOR  GOVERNOR, STATE OF WISCONSIN
APPENDIX L

ICE AGE TRAIL MEMORANDUM OF AGREEMENT

The purpose of this memorandum of agreement is to outline the responsibilities of the Wisconsin Department of Natural Resources, the Ice Age Park and Trail Foundation and the Ice Age Council regarding the Ice Age Trail.

The Ice Age National Scientific Reserve was authorized by PL-88-655 in October, 1964. PL-91-483 which provides the basis of financing the Reserve was signed in October, 1970. A subsequent cooperative agreement between the State of Wisconsin and the National Park Service in September, 1972 stated that both agencies should jointly assist the Ice Age Park and Trail Foundation in a study of the proposed Ice Age Trail in Wisconsin.

The 1,000 mile Ice Age Trail serves as a link between most of the nine units of the Reserve and other glacially significant areas as it follows the terminal moraines through Wisconsin. The Ice Age Trail is now partially operational under the auspices of the Ice Age Trail Council and the Foundation. The Ice Age Trail crosses federal, state, county, town, and other governmental lands, as well as private lands.

The Foundation is a private, non-profit corporation that originally sponsored the Ice Age Trail. The Foundation raises money and provides guidance for the Trail project. The Council is currently comprised of eleven chapters, each responsible for the location, maintenance, and care of specific Trail segments. Council members work with landowners to secure permission to locate the Trail and arrange volunteer labor for maintenance of the Trail.

The Wisconsin Department of Natural Resources, the Ice Age Park and Trail Foundation of Wisconsin, Inc., and the Ice Age Trail Council agree as follows:

1. The Department, the Foundation, and the Council will cooperate in the completion and maintenance of the Ice Age Trail, as defined in this agreement.

2. The Department shall have responsibility for laying out, designing, constructing, and maintaining the Trail over Department lands. For the purposes of this agreement, county forest lands shall not be considered "Department lands."

3. The Council shall have responsibility for constructing and maintaining the Trail over private lands.

4. The Department and the Council shall have joint responsibility to advise and provide guidance to other governmental units in laying out, designing, constructing, and maintaining the Trail over other public lands. For the purposes of this agreement, county forest lands shall be considered "other public lands."
5. As an additional part of its obligations under this agreement, the Department will:
   a. Provide leadership and coordination for the Ice Age Trail.
   b. Appoint various Department personnel along the route of the Ice Age Trail to work with the Council and its chapters on specified segments of the Trail.
   c. Advise the Council and Foundation on Trail layout, design, construction, and maintenance for those parts of the Trail they are responsible for.
   d. Provide Trail easement and other right-of-way acquisition expertise.
   e. Provide Trail mapping expertise.
   f. Provide Trail publications expertise.
   g. Provide Trail publicity and public relations expertise.
   h. Make application to secure National Recreational Trail designation for the Ice Age Trail in Wisconsin.

6. Except as is authorized by the Legislature, the Natural Resources Board and the Department have no obligation to:
   a. Acquire any lands for the Trail outside other authorized Department projects.
   b. Construct or maintain any portion of the Trail over non-Department lands.

7. As an additional part of its obligations under this agreement, the Council and its various local chapters will work with the advice of the Department in:
   a. Laying out, designing, constructing, and maintaining the Trail.
   b. Securing Trail easements and other rights-of-way.
   c. Mapping the Trail.
   d. Publishing Trail maps and other Trail information.
   e. Providing Trail publicity and public relations.

9. As an additional part of its obligations under this agreement, the Foundation will use its best efforts to provide such non-public funds as may be needed to carry out this agreement.
9. The parties agree to meet annually on a date to be mutually agreed upon to discuss the workability of this agreement. "Either party may cancel this agreement upon three months written notice to the other party."

10. In connection with the performance of work under this agreement, the Council agrees not to discriminate against any employee, applicant for employment, member, volunteer or trail user because of age, race, religion, color, handicap, sex, physical condition, developmental disability as defined in s. 51.01(5), Stats., or national origin. This provision shall include, but not be limited to, the following: employment, up-grading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Council further agrees to take affirmative action to ensure equal employment opportunities. The Council agrees to post in a conspicuous place available for employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of the nondiscrimination clause.

11. Should the Council at any time have paid employees working on the Ice Age Trail on Department lands, they shall furnish proof of Worker's Compensation coverage in the form of a Certificate of Insurance indicating such for these individuals. The insurance policy shall contain a provision by which the insurer agrees to notify the Department upon any lapse or change in coverage.

Failure to satisfy the provisions of this paragraph will result in the voiding of the agreement.

APPROVED:

Norman C. Huth
Ice Age Park and Trail Foundation of Wisconsin, Inc.

Julius J. Werner
Ice Age Trail Council

Anthony S. Carl, Secretary
Department of Natural Resources

7-26-80
7-13-80
7/28/80

Date

Date

Date
The symbols used to show relative waterfowl values by flyway areas are standardized for all the type maps. These symbols show what proportion of the habitat of a particular type in a particular flyway area is judged to be of primary importance to waterfowl, as follows:

![Map showing wetlands classification with flyway areas labeled North, Central, South, Pacific, and Midwest.]

**INLAND FRESH AREAS**

Type 1: Seasonally flooded basins or flats (pl. 1). The soil is covered with water, or is waterlogged, during variable seasonal periods but usually is well drained during much of the growing season. This type is found both in upland depressions and in overflow bottom lands. Along river courses, flooding occurs in late fall, winter, or spring. In the uplands, basins or flats may be filled with water during periods of heavy rain or melting snow.

Vegetation varies greatly according to the season and the duration of flooding. It includes bottom-land hardwoods as well as some herbaceous growths. Where the water has receded early in the growing season, smartweeds, wild millet, fall panicum, tealgrasses, chufa, redroot cyperus, and weeds (such as marsh elder, ragweed, and cockleburs) are likely to occur. Shallow basins that are submerged only very temporarily usually develop little or no wetland vegetation.

Upland depressions included in the inventory are confined largely to the three Lake States, the two Dakotas, Montana, and the Panhandle of Texas. In the northern States the presence of this temporary water stimulates high waterfowl production by providing greater area for the establishment of territories by breeding pairs. When water occurs abundantly in the Panhandle, the temporarily flooded basins (playas) are used extensively by migrating and wintering waterfowl.

The overflow bottom lands in the southern part of the Mississippi Flyway provide a major wintering area for ducks as well as good shooting sites for hunters. Particularly in good mast years,
feeding during use bottom lands when they are flooded. Although there remain more than 10 million acres of overflow lands in Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana, most of the wintering waterfowl in this flyway concentrate in certain key areas.

Type 2—Inland fresh meadows (pl. 2). The soil usually is without standing water during most of the growing season but is waterlogged within at least a few inches of the surface. Vegetation includes grasses, sedges, rushes, and various broad-leaved plants. In the North, representative plants are cresses, oxalis, redtop, reedgrasses, marshgrasses, prairie cordgrass, and minna. In Florida, cordgrasses and various species of sedge and beakrushes are common. Meadows may fill shallow lake basins, sloughs, or farmland slacks, or they may border shallow marshes on the landward side. Wild fowl sometimes are cut from such areas.

Fresh meadows are used somewhat in the North by nesting waterfowl, but in most of the country their value is mainly as supplemental feeding areas. If shallow water can be impounded on them, their value can be increased considerably.

Type 3—Inland shallow fresh marshes (pl. 3). The soil is usually waterlogged during the growing season, often it is covered with as much as 6 inches or more of water. Vegetation includes grasses, sedges, spikerushes, and various other marsh plants such as cattails, arrowheads, Pickerelweed, and smartweeds. Common representatives in the North are red, white-top, rice cutgrass, cresses, and giant arrowhead. In the Southeast, marshes, sawgrass, arrowhead, and pickerelweeds are characteristic. These marshes may merely fill shallow lake basins or sloughs, or they may border deep marshes on the landward side. They are also common as deep areas on irrigated lands.

Marshes of this type are used extensively as nesting and feeding habitat in the pothole country of the North Central States and elsewhere. In combination with deep fresh marshes (Type 4), they constitute the principal production areas for waterfowl. Florida and Georgia are the only States where the majority of the shallow fresh marshes is considered to be of lesser importance to waterfowl. Florida contains more than 2 million acres of this type.

Type 4—Inland deep fresh marshes (pl. 4). The soil is covered with 6 inches to 3 feet or more of water during the growing season. Vegetation includes cattails, reeds, bulrushes, spikerushes, and wildrice. In open areas, pondweeds, Najas, cattail, watermold, watermilfoil, waterhyacinth, water-lilies, or spatterdock may occur. Waterhyacinth and watermold beakrushes form surface mats in some localities in the Southeast. These deep marshes may almost completely fill shallow lake basins, potholes, limestone sinks, and sloughs, or they may border open water in such depressions.

Deep fresh marshes constitute the best breeding habitat in the country, and they are also important feeding places. In the Western States they are heavily used by migrating birds, especially diving ducks. Florida and Texas are the only States in which the vast majority of these marshes are not rated as being of primary importance to waterfowl.

Type 5—Inland open fresh water (pl. 5). Shallow ponds and reservoirs are included in this type. Water is usually less than 10 feet deep and is fringed by a border of emergent vegetation. Vegetation (mainly at water depths of less than 6 feet) includes pondweeds, irises, wildrice, cattail, watermold, waterhyacinths, watermilfoil, spatterdocks, and (in the South) waterlily.

In the pothole country of the North Central States, Type 5 areas are used extensively as food
areas when, in midsummer and late summer, the less permanent marshes begin to dry out. The bottom of such areas are used for nesting throughout the Northern States. Where vegetation is plentiful, they are used in all sections of the country as feeding and roosting areas by ducks, geese, and coots, especially during the migration period.

**Flyway area:**

<table>
<thead>
<tr>
<th>Area</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pacific north</td>
<td>40,500</td>
</tr>
<tr>
<td>2. Pacific south</td>
<td>51,600</td>
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<tr>
<td>3. Central north</td>
<td>676,600</td>
</tr>
<tr>
<td>4. Central south</td>
<td>827,500</td>
</tr>
<tr>
<td>5. Mississippi north</td>
<td>1,060,900</td>
</tr>
<tr>
<td>6. Mississippi south</td>
<td>1,461,600</td>
</tr>
<tr>
<td>7. Atlantic north</td>
<td>823,500</td>
</tr>
<tr>
<td>8. Atlantic south</td>
<td>821,500</td>
</tr>
</tbody>
</table>

**Type 6—Shrub swamps (pl. 6).** The soil is usually waterlogged during the growing season, and is often covered with as much as 6 inches of water. Vegetation includes alders, willows, black birch, dogwoods, and swamp privet. Shrub swamps occur mostly along sluggish streams and occasionally on flood plains. They are used to a limited extent for nesting and feeding in the North and for roosting and feeding in some of the Mississippi Alluvial Valley States. Elsewhere, shrub swamps are little used except in a few special situations.

**Flyway area:**

<table>
<thead>
<tr>
<th>Area</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pacific north</td>
<td>11,900</td>
</tr>
<tr>
<td>2. Pacific south</td>
<td>10,600</td>
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<td>3. Central north</td>
<td>75,600</td>
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<tr>
<td>4. Central south</td>
<td>97,800</td>
</tr>
<tr>
<td>5. Mississippi north</td>
<td>72,622</td>
</tr>
<tr>
<td>6. Mississippi south</td>
<td>102,300</td>
</tr>
<tr>
<td>7. Atlantic north</td>
<td>77,400</td>
</tr>
<tr>
<td>8. Atlantic south</td>
<td>622,100</td>
</tr>
</tbody>
</table>

**Type 7—Wooded swamps (pl. 7).** The soil is waterlogged at least to within a few inches of its surface during the growing season, and is often covered with as much as 1 foot of water. Wooded swamps occur mostly along sluggish streams, on flood plains, on flat uplands, and in very shallow lake basins. In the North, trees include tamarack, arborvitae, black spruce, balsam, red maple, and black ash. In the South, water oak, tupelo gum, swamp black gum, and cypress are dominant. In the Northwest, western hemlock, red alder, and willows are common. Northern evergreen swamps usually have a thick ground covering of mosses. Deciduous swamps frequently support beds of duckweeds, smartweeds, and other herbs. Wooded swamps often occur in association with shrub swamps, and waterfowl often use the two types interchangeably. In the Southeast, Type 7 swamps become particularly important in years when lack of sufficient fall and early winter rains leave overflow areas dry. At such times, wooded swamps represent the only shallow water available over wide areas. This type is particularly useful to the wood duck throughout the range of this species.

**Flyway area:**

<table>
<thead>
<tr>
<th>Area</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
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<td>18,200</td>
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<tr>
<td>2. Pacific south</td>
<td>2,200</td>
</tr>
<tr>
<td>3. Central north</td>
<td>72,400</td>
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<tr>
<td>4. Central south</td>
<td>2,606,700</td>
</tr>
<tr>
<td>5. Mississippi north</td>
<td>2,313,800</td>
</tr>
<tr>
<td>6. Mississippi south</td>
<td>956,000</td>
</tr>
<tr>
<td>7. Atlantic north</td>
<td>10,473,200</td>
</tr>
<tr>
<td>8. Atlantic south</td>
<td>15,473,200</td>
</tr>
</tbody>
</table>

**Type 8—Bogs (pl. 8).** These are often called poconics, bogs, and savannas in the South. The soil is usually waterlogged and supports a spongy covering of mosses. Bogs occur mostly in shallow lake basins, on flat uplands, and along sluggish streams. Vegetation is woody or herbaceous, or both. Typical plants are heath shrubs, sphagnum moss, and sedges. In the North, leather-leaves, Labrador-tea, cranberries, sarsaparilla, and cottongrass are often present. In the South, cypress, persimmon, sassafras, sweet bay, pond pine, Virginia chain-fern, and pitcher-plants are common. Scattered, often stunted, black spruce and black willow may occur in northern bogs.

Bogs have the lowest waterfowl rating, country-wide, of all the 20 types. In northern New England, however, they assume considerable significance. In Maine alone, 25,500 acres are classed as being of primary importance to waterfowl.

**Flyway area:**

<table>
<thead>
<tr>
<th>Area</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pacific north</td>
<td>1,400</td>
</tr>
<tr>
<td>2. Pacific south</td>
<td>1,500</td>
</tr>
<tr>
<td>3. Central north</td>
<td>300</td>
</tr>
<tr>
<td>4. Central south</td>
<td>477,400</td>
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<tr>
<td>5. Mississippi north</td>
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<td>46,700</td>
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<tr>
<td>7. Atlantic north</td>
<td>87,600</td>
</tr>
<tr>
<td>8. Atlantic south</td>
<td>2,153,300</td>
</tr>
</tbody>
</table>

**INLAND SALINE AREAS**

**Type 9—Inland Saline flats (pl. 9).** The soil is without standing water except after periods of heavy precipitation, but it is waterlogged to within at least a few inches of the surface during the growing season. Vegetation (often sparse or patchy) consists of salt-tolerant plants such as saltbush, saltgrass, Nevada bulrush, saltbush, and burrow-weed. Type 9 wetlands occur in undrained sumps in many parts of the And West. Sometimes they cover extensive areas.
APPENDIX N
DEVLIL'S LAKE FIRE CONTROL

Men Power - Fire Control

Paynette:
One Forest Ranger
One F.F.C.A. 11

Spring Green:
One Forest Ranger
One F.F.C.A. 1
One Park N.R.A. ;

Wisconsin Dells:
One Forest Ranger
Two 11-month F.F.C.A.'s

Equipment - Fire Control

Paynette:
1 3/4 t. 4X4 w/equipment for 5 men
1 2 t. with crawler, plow, and dozer
Hand tools for 5 line crews of 5 men each

Spring Green:
1 T-34 airplane
2 3/4 t. 4X4 w/equipment for 5 men
1 5 t. with crawler, plow, and dozer
Fire fighting hand tools for 10 line crews of 5 men each

Wisconsin Dells:
1 3/4 t. 4X4 w/equipment
1 5 t. with crawler, plow, and dozer

The following DNR complement is located at Devilil's Lake State Park and should provide an excellent first attack force in the area.

Equipment

2 sedans with radios

Frequency
Sheriff's Dept. 2
Park
Fire Control 2

6 Park frequency portable radios 2 with rem net

Park Unit:
1 Ford van w/radio (park)
1 2 t. 1/2 T. pickups w/park frequency radios
1 bulldozer DNR-TD124 w/4-way blade. Equiv. to JD 350

Hand Tools:
15 axes
33 shovels
21 fire rakes
8 back cans
1 number 000 Portable on skids

- 89 -
Personnel:
Permanent:
  2 Suprs.
  2 LE
  2 Clerical
  1 Maintenance
Seasonal:
  2 LE
  3 Maintenance
LTE
15 that could be used on fire

The following fire departments provide fire protection in addition to DNR to the proposed area. Each fire department has 20 to 30 members and the following equipment:

**Marines**

*Area covered: Town of Marines*

*Equipment*
  - 800 gallon pumper
  - 1,000 gallon pumper
  - 1,300 gallon tanker
  - 50 gallon grass fire unit

**Seld City**

*Area covered: Town of Sumpter*

*Equipment*
  - 300 gallon pumper
  - 500 gallon pumper
  - 1,200 gallon tanker
  - 1,300 gallon tanker
  - 1,800 gallon tanker
  - 50 gallon 4x4 grass unit
  - 4-wheel drive truck

**Baraboo**

*Area covered: Towns of Baraboo, Greenfield, and that part of Sumpter which encompasses Devil's Lake Park*

*Equipment*
  - 600 gallon pumper
  - 500 gallon pumper
  - 1,000 gallon semi tanker
  - 100 gallon Scout grass fire unit
  - Equipment truck
  - Chief's car
Uniform Land Use Classification System for Existing and Proposed Department Properties

Purpose
A uniform land use classification system for Department properties will have a number of uses:

1. Facilitate a uniform and statewide resource management program. Classes with definite criteria and management principles will guide the whole Department in working toward common environmental management objectives.

2. Facilitate a truly Departmentwide land acquisition program by assisting in the formulation of acquisition priorities.

3. Provide a consistent relationship between land acquisition and subsequent development.

4. Provide for many (multiple) uses of Department properties. It will facilitate the attainment of the many environmental objectives of the Department of Natural Resources and insure maximum public benefits consistent with sound resource management principles.

Characteristics of Land Use Classification
A uniform land use classification system recognizes that there may be primary use designations of some Department properties. This results from various statutory definitions and from the sources of funds used to acquire the land. However, a classification system will discourage such designation of whole properties and open the way for more comprehensive resource management. Under a classification system, a property may contain several land use classes. When a land use class is applied to a particular part of a property, that use will be considered the primary use of that part or area. However, collectively the property is managed for all designated uses, or for multiple management.

The large number of specific land use classes can be grouped into broad categories. The broad land use categories are: 1) resource protection, 2) resource development, 3) intensive recreation development, and 4) administrative. Each of these are further divided into subcategories of land use areas:

1. Resource Protection

<table>
<thead>
<tr>
<th>Classification</th>
<th>Land Use Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Wilderness Areas</td>
<td>( U )</td>
</tr>
<tr>
<td>B. Wild Areas</td>
<td>( U_2 )</td>
</tr>
<tr>
<td>C. Public Use Natural Areas</td>
<td>( N )</td>
</tr>
<tr>
<td>D. Scientific Areas</td>
<td>( S )</td>
</tr>
<tr>
<td>E. Federal Wild, Scenic and Recreational Rivers</td>
<td>( FR_1, FR_2, FR_3 )</td>
</tr>
<tr>
<td>F. Wisconsin Wild Rivers</td>
<td>( WR )</td>
</tr>
<tr>
<td>G. Wilderness Lakes</td>
<td>( A )</td>
</tr>
<tr>
<td>H. Wild Lakes</td>
<td>( A_2 )</td>
</tr>
<tr>
<td>I. Habitat Preservation Areas</td>
<td>( JP )</td>
</tr>
<tr>
<td>J. Historical and Archaeological Areas</td>
<td>( HA )</td>
</tr>
<tr>
<td>K. Scenic Areas</td>
<td>( Sc )</td>
</tr>
</tbody>
</table>

5-28-80
II. Resource Development
A. Demonstration and/or Experimental Management Area
B. Fisheries and Wildlife Management Area
C. Forest Production Area
D. Mineral Extraction Area
E. Propagation and Nursery Area

III. Intensive Recreation Development
(This category is not broken down further but will contain intensive recreation developments.)

IV. Extensive Recreation Development
(This category is not broken down further but will contain extensive recreation developments.)

V. Administrative
A. Headquarters Sites (property, area, district, station)
B. Communication Tower Site
C. Fire Control Tower Site
D. Forest Fire Station Site
E. Rough Fish Station
F. Tourist Information Center
G. 1-100
H. Miscellaneous

For the sake of clarity and understanding, it should be emphasized that the names or titles now given to Department properties still should be used. However, the title given a property should closely portray the dominant land use class on that property. Current property titles are:

1. State Parks
   a. Scenic Parks
   b. Historical Parks
   c. Recreational Parks
   d. Roadside Parks
   e. Park Trails
2. Recreational Areas
3. Recreational Forests
4. Northern Forests
5. Wild Rivers
6. Wildlife Areas
   a. Fish Habitat Area (cold water, warm water, spring pond, lake habitat)
   b. Fish Remnant Area
   c. Lake and Major River Access
   d. Waterfall Management Area
   e. Scattered Wetland Area
   f. Extensive Habitat Area
7. Scientific Areas
8. Natural Areas

*Mineral extraction category will not be used for acquisition; it will be used only for designation purposes on existing lands, where appropriate.
c. Public Use Natural Areas

Tracts of land or water where native biotic communities or other natural features, including significant geological or archaeological sites, persist. They are relatively undisturbed ecosystems or sub-ecosystems that can be enjoyed by the public for general nature study, education, and aesthetic appreciation, under certain restrictions, without threat of destruction.

1. Criteria

a. Areas with biotic communities or other natural features of at least county or multi-county significance.

b. Areas of any size, but sufficient to insure maintenance of the integrity of the biotic community or natural feature. Areas may be small (less than 15 acres) if well buffered or could approach or even exceed the minimum recommended size of wilderness areas (5,000 acres).

2. Management Guidelines

a. To the extent possible, maintain natural conditions, allow natural physical and biological processes to operate without human intervention.

b. Interpretive signs, walking trails, and other improvements designed to enhance nature study and nature appreciation are permitted; however, development and management shall be limited to the extent required to facilitate use and prevent degradation and encroachment by non-compatible uses (hiking, off-road motorized driving, camping, etc.).

c. Timber harvest is generally prohibited, but salvage following extensive natural disaster may be permitted.

d. Management designed to simulate natural forces which shaped the natural community is permitted (e.g., fire).

e. Non-commercial and non-mass specimen collecting may be permitted if not otherwise prohibited by law or administrative rule.

3. Scientific Areas

Tracts of land or water containing the best remaining examples of natural biotic communities or other natural features including significant geological or archaeological features. They are natural areas of at least statewide significance especially suited to research and designation as state scientific areas.

1. Criteria

a. Best remaining natural areas recommended as scientific areas by the Scientific Areas Preservation Council.

b. Of any size ranging from remnant prairies or caves of several acres in extent to large tracts of several thousand acres in extent, sufficient to insure maintenance of the biotic community or natural feature.

c. Representative examples of all presettlement terrestrial and aquatic communities, threatened or endangered plant and animal species preserves, or significant geological and archaeological features. Representation is needed in each region of the state where the community or feature occurred naturally in presettlement era.
2. Management guidelines
   a. Inssofar as possible maintain natural conditions. Allow natural
      physical and biological processes to operate with a minimum of human
      intervention.
   b. Development limited to the extent required to facilitate primary
      uses-research and education-and prevent degradation and encroachment
      by noncompatible uses (snowmobiling, off-road vehicle driving, berry
      picking, camping, etc.).
   c. To protect sensitive communities and fragile features, the location
      of scientific areas should generally not be publicized, and public
      recreation use should be directed to suitable alternate areas.
   d. Specimen collections shall be by permit only.
   e. Management designed to simulate natural forces which shaped the
      community is permitted. An example is the use of fire for prairie,
      barrens and savanna types.
   f. Scientific areas will be managed according to specific management
      plans for each site prepared by Scientific Areas staff, jointly
      approved by the Scientific Areas Preservation Council, Bureau and
      District, and implemented by the District and Bureaus.

III. Intensive Recreation Development Areas

Defined as those quality areas adaptable to heavy recreational use and in a
location where active and intensive recreation developments are needed. They
are that part of a Department project where recreation facility developments
will occur or are located now.

A. Criteria

1. Should be of sufficient size to include existing or proposed recrea-
tional facility development and limited buffer zones. Should not con-
tain more than 10 percent of a state park or recreation area, nor
more than 5 percent of a recreational forest or other Department
management areas. Water access sites are exempted from this rule.

2. Resource base should have a carrying capacity to support active type
recreation activities and their associated developments.

3. Recreation areas should contain natural resource values that provide
a high quality recreational experience.
B. Management Guidelines

1. Intensive outdoor recreation shall be recognized as the dominant or primary management objective.

2. Primary emphasis shall be placed on active participation in outdoor recreation in a pleasing environment.

3. Physical developments shall be consistent with the management and use guidelines (1 and 2 above).

4. The scope and type of development, as well as their design, materials and construction shall enhance and promote the use and enjoyment of the recreational resources of the area.

5. Forest fire control and pest control will be carried out as necessary.

6. Utilities may be provided consistent with high aesthetic standards.

7. Mineral extraction shall not be permitted.

8. Hunting will not be allowed within the recreation development area class because of the potential safety hazard. All other recreational activities may be allowed.

9. Adequate public access will be provided.

IV. Extensive Recreation Area

Defined as the area within the boundary of a state property where good examples of native flora and fauna exist, where aesthetics perpetuation or conversion of forest stand management can be carried out and educational programs can be implemented, where vegetative management to control insects and disease and provide for public safety may take place.

The areas may have some scenic attributes but may not necessarily be unique. Extensive Recreation Areas may serve as buffer between Intensive Recreation Development Areas and Natural or Scientific Areas. Types of public uses on Extensive Recreation Areas will include trails, overviews, natural interpretation, etc.

A. Criteria

1. These lands are outside the Intensive Recreation Areas and help preserve the scene. They are, in most cases, the scenic attributes of the property. They contribute toward giving the user a quality outdoor experience.

2. These areas include most of the land within a property boundary in most parks. The exception to this is very small parks which are developed to a high percentage in intensive type facilities.

3. Normally these areas have high resource value, but would be open and available to certain forms of recreation and the outdoor experience.

B. Management Guidelines

1. Aesthetic management may be carried out.

2. Education programs may utilize these sites.
3. Trails, including snowmobile trails, may be permitted.

4. Vegetative management programs can be carried out for safety, aesthetics, purposes or perpetuation or conversion of forest stand.

5. Structures such as roads and toilets and trail development can be accommodated but should enhance and facilitate the use of the area.

6. The style, design or materials used in facilities shall be in keeping with high aesthetic standards.

7. Passive type recreation is the dominant use.

8. Mineral extraction shall not be permitted.

9. Hunting may be allowed depending upon the laws effecting the property.

10. Habitat manipulations may be permitted.
DATE: December 14, 1981

TO: Richard Linberg - PLN/6

FROM: D. L. Weizenicker

SUBJECT: WRAC Comments on Devil's Lake State Park Master Plan

Our Bureau's response to the Wild Resources Advisory Council comments and recommendations on the Devil's Lake State Park Master Plan are as follows:

1. **Introduction Last Paragraph**

WRAC recommends the words and educational be inserted between recreational and experience.

Department Response:

"and educational" was inserted as recommended by the Council.

2. **Goals and Objectives Page 1**

The goal is excellently stated. WRAC recommends that the sentence of the second paragraph under Visitor Use end with and education.

Department Response:

"and education" was added per the Council's recommendation.

3. **Page 2. Item b Park Entrance and Roads**

WRAC wishes to add its support to the recommendation made by the Task Force for the panoramic site for reasons outlined in the section.

Department Response:

We thank the Council for their support.

4. **Page 3c. Shuttle System**

WRAC considers this an excellent layout and supports the program. The Council feels that the shuttle system applied to park use reduces wear and tear on the environment, saves energy, and is more humane to the visitors.

Department Response:

We also feel that the shuttle concept has some very positive aspects especially when considering the physical layout of the park. We will
have to watch operating costs before putting it into operation in the future. Thank you for the comments.

5. Pages 6, 7 and 8. Extensive Use Areas

Devil's Lake State Park is rich in existing and proposed trails. There is more diversity here than any place else in the state. WRAC applauds the managers in keeping bridal and ORV trails out of the park.

Department Response:
So noted.

6. Page 25. Historical and Archeological Features

Second line first paragraph. Typographical error. Please correct 102, somebody might believe you.

Department Response:
The typographical error has been corrected.

7. Page 27. Item j. South Bluff

WRAC recommendations - Put this proposal on the back burner until demonstrated need becomes a roar.

Department Response:
We accept the Council's recommendation.

8. Appendices

a. Appendix A -

The wildlife listings are super, WRAC compliments. Lists such as these reinforce the educational component of the park goal.

Department Response:
We thank WRAC for the compliment.

b. Appendix B -

Very commendable for threatened, endangered, and uncommon plants. RAC is justifiably concerned that a listing of common plants is not included in the appendix or in the text except for the listings in the Scientific Areas. Educationally interested visitors, regular and Ice Age, have a right to know what common plants can be admired, photographed, or generally observed in the park.

Department Response:
Self-guided nature trails, the nature center, guided hikes, and evening naturalist programs provide opportunities for the
TO: A. Lindberg - December 14, 1981

interested visitor to learn more about the park's plant life. The park's "Visitor" newspaper also provides some general information on plant life.

c. Appendix B

The Scientific Areas of Red Oak Forest, Pine Glen, and Koshawago Springs and other such areas in the Baraboo Hills adds to the prestige of the park and the region. Their major challenge is, and should remain as a domain for the serious student of nature. Over exposure would result in decimation of the natural values for which these areas were designated. WRAL is pleased with cautious exposure given to the Scientific Areas in the Devil's Lake State Park by the Task Force in the Concept Element.

Department Response:

So noted.

Thank you for the Council's thorough review and helpful comments on the Devil's Lake Master Plan.

cc: J. L. Treichel - PAR/4
    D. J. Kuhnake - PAR/4
    D. Morrissette - Nevin
Date: December 15, 1981  
File No.: 2510

To:  
F. Klepinger - RES/4

From:  
D. L. Wetzenkter

Subject:  
SAPC Comments on Devil's Lake State Park Master Plan

Our Bureau's response to the Scientific Areas Preservation Council comments and recommendations on the Devil's Lake State Park Master Plan are as follows:

1. First Paragraph

The concept plan describes facilities and uses proposed, but provides little detail on certain aspects such as the type of educational programs to be offered. Since the pre-Cambrian geology of the park is so important we hope that the Ice Age National Scientific Reserve Interpretive Center program does not ignore the textbook pre-Cambrian features of the park.

Department Response:

The Devil's Lake Interpretative Program is currently a well-established program that reached nearly 29,000 park visitors in 1980 with the aid of one full-time and several seasonal naturalists. The Ice Age Interpretive proposals in the master plan (page 8) will compliment and expand upon what is already offered. Details of a specific program are normally not included in a conceptual master plan, but pre-Cambrian geology is included in the program.

2. Second Paragraph

The reference on page 24 and list of Threatened, Endangered and Uncommon Plants in Appendix B might be retitled Rare, Uncommon, and Plants of Special Interest, since these plants are not at this time on the official state or federal lists of threatened and endangered plants.

Department Response:

The Council's comment concerning threatened, endangered and uncommon plants is noted. The reference on page 24 and the plant listing title in Appendix B will be revised according to the recommendations of the Office of Endangered Species.
3. Third Paragraph

This land use classification of 300 acres as scientific areas and 5,900 acres as natural areas is appropriate and necessary in view of the park's high visitation rate.

Department Response:

So noted.

4. Fourth Paragraph

The problem of damage to trees by park users (p. 27, g.) should be given more attention. Park users should not be allowed to cut or remove any firewood, whether live, dead, or down.

Department Response:

Regulations under Chapter NR 45 prohibiting the damage of any natural growth in a state park or forest are enforced. Public Information and education is also a means to reduce this problem. Chapter NR 45 does not prohibit the gathering of firewood.

5. Fifth Paragraph

The relocation of South Shore Drive and removal of camping at the south end of Devil's Lake is appreciated; however, we hope the relocation will not infringe on the talus slope. Talus is not uncommon at Devil's Lake, but it is one of only two good examples in the state and should be protected from further disturbance.

Department Response:

We can assure the Council that the proposed development on the south shore will not infringe upon the talus slope.

6. Sixth Paragraph

The alternative of boundary expansion (p. 31, 3.) which would add 80 acres and connect Devil's Lake State Park with Parfrey's Glen Scientific Area is logical and will aid in protecting the scientific area.

Department Response:

So noted.

We thank the Council for taking the time to review and comment on the Devil's Lake Master Plan.

cc: J. L. Treichel - PAR/4
    D. J. Kolhanek - PAR/4
    D. Morrisette - Nevin