Form 1100-1
Rev. 10-77

Item _____ Minutes of _____

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Madison, Wisconsin

ITEM RECOMMENDED FOR NATURAL RESOURCES BOARD AGENDA

TO THE SECRETARY: Anthony S. Earl Date June 11, 1980

FROM: D. J. Mackie

SUBJECT: MASTER PLANNING - Approval of conceptual master plan for Kinnickinnic State Park in Pierce County.

1. To be presented at June Board meeting by Jim Treichel.

2. Appearances requested by the public:

Name	Representing whom?

3. Reference materials to be used:

Attached master plan for Kinnickinnic State Park.

4. Summary:

Pursuant to Board policy on master planning, this master plan is for review and approval by the Board.

The Wild Resources Advisory Council and the Scientific Areas Preservation Council have reviewed the plan. Their comments appear in the master plan appendix.

5. Recommendation:

That the Board approve the master plan for Kinnickinnic State Park.

APPROVED:

C. D. Besadny, Administrator — 6-11-80 Date

Deputy Secretary — Date

Secretary Anthony S. Earl — 6/12/80 Date

Signed:

D. J. Mackie, Director
Bureau of Parks & Recreation

Attach.

cc: J. Scullion - ADM/5
R. Nicotera - ADM/5
R. Lindberg - PLN/6
C. Germain - RES/4
J. Lissack - Eau Claire
J. L. Treichel - P&R/4
D. J. Mackie - P&R/4
D. L. Weizenicker - P&R/4
L. L. Schuh - P&R/4
J. Huntoon - OL/4

JUN 18 1980

CORRESPONDENCE/MEMORANDUM

STATE OF WISCONSIN

Date: June 11, 1980 *File Ref:* 2510

To: Anthony S. Earl - ADM/5

From: D. J. Mackie

Subject: Kinnickinnic State Park Master Plan

The Kinnickinnic State Park Master Plan was sent to both advisory councils (WRAC and SAPC) for their review in accordance with the approved master plan procedures. Comments from the advisory councils with our response are in the appendix of the master plan.

At the request of the district, the master plan was presented at a public meeting held April 17, 1980, in River Falls.

This 1,264-acre scenic park located at the confluence of the Kinnickinnic and St. Croix Rivers in Pierce County, will provide day-use facilities for picnicking, hiking, swimming and boating. Less than 7 percent of the total park property will be developed. Much of the upland area and fallow fields will be returned to prairie.

An approved environmental impact assessment worksheet for the Kinnickinnic State Park Master Plan is on file.

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

cc: J. Scullion - ADM/5
R. Nicotera - ADM/5
R. Lindberg - PLN/6
C. Germain - RES/4
J. Lissack - Eau Claire
J. L. Treichel - P&R/4
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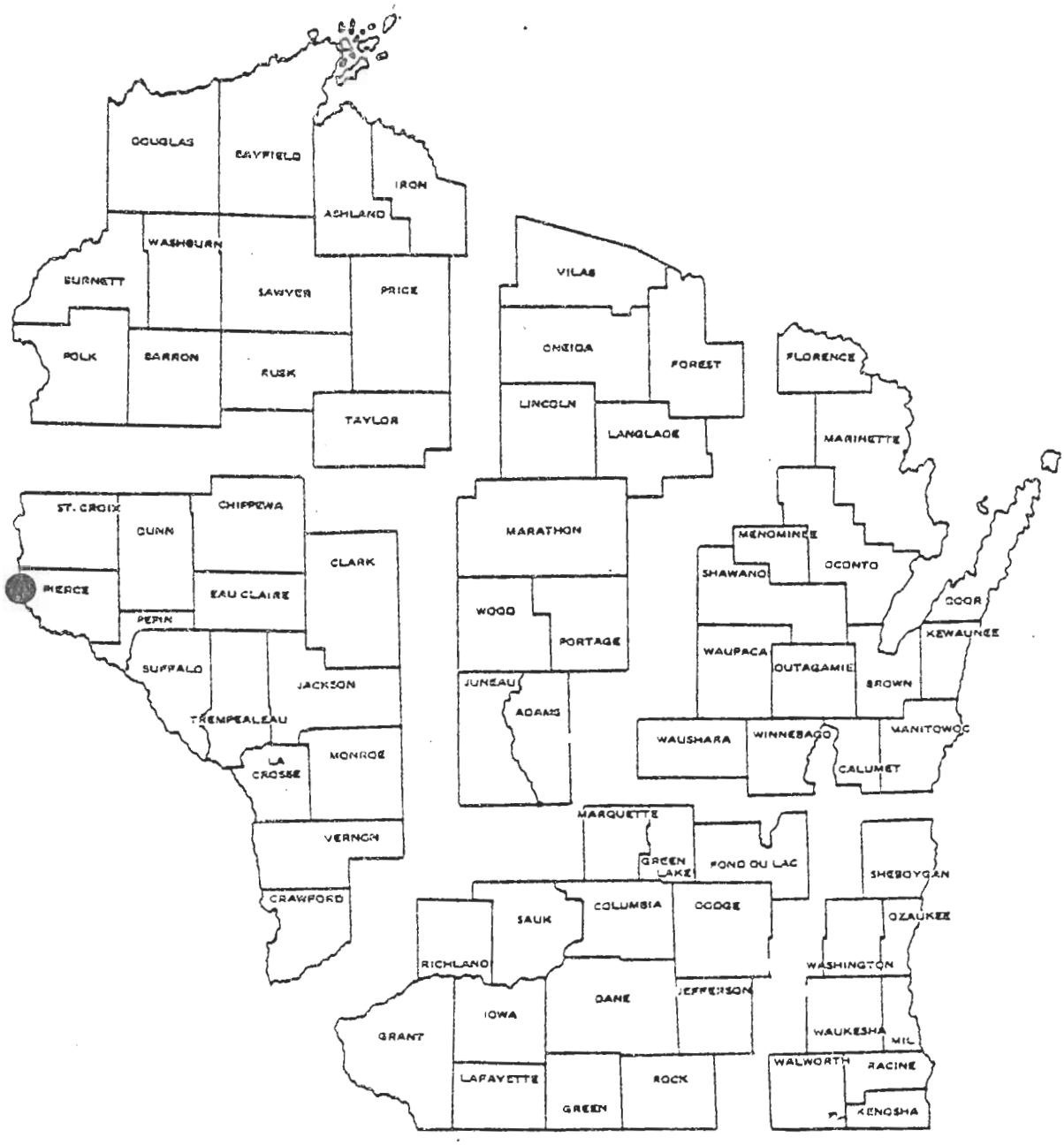
D. L. Weizenicker - P&R/4
J. Huntoon - OL/4
L. L. Schuh - P&R/4

KINNICKINNIC STATE PARK MASTER PLAN

CONCEPT ELEMENT



Property Task Force

Leader - Michael Ries - Planner
John Nesvold - Property Supt.
Bert Apelgren - Fish Management
Bruce Moss - Wildlife Management
Henry Anderson - Forest Mgt.

Approved by Natural Resources Board

JUNE 26, 1980
Date

Submitted: 10/79

Wisconsin Department of Natural Resources
Madison, Wisconsin

Kinnickinnic State Park Master Plan

Table of Contents

KINNICKINNIC STATE PARK

MASTER PLAN

I. Background

A. Location

The property lies within sections 7, 11, 12, 13, 14 and 18, Town of Clifton, Pierce County (T27N, R20W). It encompasses land both north and south of the Kinnickinnic River. It is bounded by County Trunk Highway F on the east and the St. Croix River on the west. Township roads demark most of the north and south boundary. The relationship of the property to surrounding counties as well as the distance and direction to the nearest communities is shown on the Locator Map in Appendix A.

B. Record of Property Creation

The State of Wisconsin foresaw the potential of the land at the confluence of the Kinnickinnic and St. Croix rivers in the early 1960's. This is evidenced by the Wisconsin Outdoor Recreational Plan of 1966 in which the site was recommended for acquisition as a park.

In 1969, the Minnesota-Wisconsin Boundary Area Commission took an active part in promoting the establishment of a state park at this site by arranging for representatives of the DNR to meet with the principal landowners, Carl Pemble, George Richter, and Homer Creswell. These landowners, feeling urban pressures for housing development in the area, chose a course that would retain the land in an open natural state. They enthusiastically supported the establishment of a state park which would encompass most of their lands, and agreed to donate a total of 45 acres to the Wisconsin Department of Natural Resources for park purposes.

Local government units also took a position on the park proposal. Pierce County and Clifton Township resolutions stated that they did not oppose the park, and St. Croix County and the Mississippi River Regional Planning Commission adopted a resolution in support of the proposed park. In 1970 and 1971, as it became apparent that the Wisconsin Department of Natural Resources was seriously considering establishing a state park on the Kinnickinnic, a flood of resolutions from clubs, agencies, and letters from private individuals flowed into the Department. These were overwhelmingly in support of the park. A summation of support is attached in Appendix "B".

At the January 14, 1971, meeting of the Natural Resources Board, establishment of a park on the Kinnickinnic was discussed. At the April, 1972, meeting of the Natural Resources Board, a resolution to establish such a park was deferred until after inspection of the site by the Board. Finally in September, 1972, a resolution was passed by the Natural Resources Board to accept the land gifts of Pemble (20 acres), Richter (20 acres) and Creswell (5 acres). Additional acquisition of 771 acres was also approved, and an acquisition goal of 1,045 acres was established. In November, 1976, the Board approved the inclusion of the Trimbelle Creek Farm property (19 acres in SW of NE¼ of Section 18 T27N-R20W) within the park boundary. In December 1978, the Board approved a boundary expansion of 260 acres thereby bringing the total project acreage goal to 1,324.0 acres.

C. The Lower St. Croix National Scenic Riverway

The Lower St. Croix National Scenic Riverway is a joint project between the National Park Service and the states of Minnesota and Wisconsin. It was authorized October 25, 1972, under Public Law 92-560 and covers the 52-mile long segment of river between Taylor Falls, Minnesota and Prescott, Wisconsin. The overall goal of the program is "to preserve the existing scenic and recreational resources of the Lower St. Croix River through controlled development". The National Park Service administers that portion from Taylor Falls to Stillwater, Minnesota. The states of Wisconsin and Minnesota are responsible for the segment from Stillwater to Prescott. Kinnickinnic is a part of this project, and therefore will be developed and managed to provide major recreational opportunities in accord with guidelines as set forth in the Lower St. Croix Riverway Master Plan. Emphasis will be placed on day-use facilities for boaters, swimmers, picnickers, and hikers.

D. Fish and Wildlife Service - (FWS)

The area of the Kinnickinnic River Valley which lies between River Falls, WI and Pierce County Trunk Highway F has been identified as containing important fish and wildlife habitat. The FWS is currently involved in studying methods of preserving this habitat. This study will result in an environmental impact statement which will assess alternative methods of preservation. These alternative methods include but are not limited to fee title acquisition, easements, zoning, and acquisition by other governmental agencies. The earliest that funding for this proposal could start would be 1983-1984.

E. The Region: Population

As of 1977, Kinnickinnic State Park was located within an hour's drive of over 2 million people, a five hour drive of 3½-4 million people and an eight hour drive of 8 million people. The Minneapolis-St. Paul metro region is located approximately 25 miles northwest of the property. Population estimates for that region are over 1.9 million.

In relationship to nearby Wisconsin communities, the property is 5 miles from River Falls (population 7,850), 7 miles from Prescott (pop. 2,668) and 12 miles from Hudson (pop. 5,909). Distances from other larger Wisconsin communities are Eau Claire, 65 miles, and LaCrosse, 100 miles. See Appendix A.

F. The Region: Transportation

County Trunk Highway F provides primary access to the property. Via CTH F, the property is approximately 12 miles south of I-94 at Hudson and 7 miles north of U.S. Highway 10 at Prescott. U.S. highways 61 and 63 feed into the area as does the Great River Road STH 35. The nearest airport with scheduled flights is located in the Minneapolis-St. Paul area. Hudson is the closest community with intercity bus service.

F. History of the Area

The northwestern portion of Wisconsin, which includes the lower St. Croix River Area, was the traditional lands of the Dakotas, a Sioux tribe. The first Europeans to visit the northwestern district of the state were Frenchmen Sieur des Groseillers and Pierre Esprit Sueur de Raddison. They visited the Chequamegon Bay area in 1656, and built the first whiteman's cabin there in 1658. In 1680 Daniel Greysolon Suer Dulhut (Duluth) ascended the Brule River, portaged to the St. Croix and descended it to the Mississippi, thus initiating an important fur trading route. In 1693, Pierre le Sueur built two forts commanding the St. Croix waterway. One was at the Brule-St. Croix portage near Solon Springs and the other one on an island in the Mississippi just below the mouth of the St. Croix near Prescott. France ceded the remainder of their Louisiana claim to the United States in 1803. In 1804, southern Wisconsin was purchased from the Sac and Fox, and in 1819, Fort Snelling was built at the junction of the Mississippi and Minnesota rivers at St. Paul.

The presence of the military, coupled with the United States 1837 purchase of the Sioux lands east of the Mississippi, opened this region to settlement. From approximately 1840 to 1890, the St. Croix River became a route for driving the pine cut in the northern pineries to Stillwater and hence cut lumber by raft to St. Louis and other more southerly markets.

The immediate area of the park was settled in the 1850's with the establishment of Clifton Hollow. The community was located in the river gorge just east of County Trunk F. At its height, this tiny hamlet consisted of a cluster of houses, a flour and feed mill, sawmill, several blacksmith shops, a cooperage, shoemaker shop, lime kiln, millinery business, general store, school and church. With the advent of the railroad in the 1870's, people left and relocated in villages with rail service. Today nothing remains of Clifton Hollow except for the remnants of the mill dam.

H. Description of the Area

1. Geology and topography

Glacial and post glacial deposition in the bed of the Mississippi raised its water level thus backing up the St. Croix. This, plus a bar built by the Mississippi across the St. Croix's mouth, caused flooding of the Lower St. Croix valley. The flooded area, known as Lake St. Croix, is approximately 1/2 mile wide in the area of the proposed park. The valley walls are steep and rise abruptly about 180 feet to relatively flat uplands which surround the gorge. The St. Croix and Kinnickinnic Valleys were cut into an upland underlain by dolomitic limestone. This upland is covered by glacial deposits. This site is within the area of older drift, or Farmdale substage of the Wisconsin Glacial Advance, and is well weathered. The upland park area is essentially gently rolling to level. The lower Kinnickinnic valley is steep sided like the St. Croix but is narrower and gorge-like and has a more pronounced dendritic pattern of secondary drainageways leading to it.

2. Soils

Portions of the upland near the Kinnickinnic gorge are relatively flat terraces, underlain by a bedrock shelf. This is particularly true north of the gorge. Information presented in the 1968 Pierce County soil survey indicates that the Antigo-Onamia soil association occupies the river terrace within the Kinnickinnic State Park. On this terrace have been deposited various thicknesses of outwash and loess that overlie the bedrock. The association occupies about 2 percent of the county."

Moderately deep Antigo and Onamia soils are dominant in this association. They are silty or loamy and are underlain by sand and gravel. For the most part, they are on the nearly level or gently sloping parts of the terrace in the park.

Dubuque, Tell, and Meridian soils also occur in this association, but less extensively than the Antigo and Onamia soils. The Dubuque soils are near the edge of the terrace, where limestone bedrock is near the surface. The Tell and Meridian soils, which have formed in thicker deposits of soil material than the Dubuque, are between the edge of the terrace and the gently inclined lower slopes of the adjacent hills.

Another minor part of the association consists of Rockton and Whalan soils and areas of Terrace escarpments, Steep stoney and rocky land, and Alluvial land. Still another minor part is made up of Chetek, Edith, Wykoff, Lamont, and Plainfield soils. The gently sloping to moderately steep Rockton soils, and some areas of Whalan soils, are on the edge of the terrace and along the ravines that dissect the rock shelf. Areas of Terrace escarpments and of Steep stoney and rocky land make up the walls of the gorge, and areas of Alluvial land are dominant on the bottoms along the streams.

The soils of this association that formed in outwash - the Meridian and Tell, for example, and to a lesser extent, the Antigo and Onamia-have layers of loamy material within their substratum of loose, sandy or gravelly material.

The major soils of this association, and some of the minor soils, are suitable for crops. The soils are slightly droughty during extended periods of dry weather, but the ones that have loamy material within the substratum are less droughty than the others. The soils in the dissected area in the extreme northwestern part of the association are generally suited to pasture and trees. The slopes in that part of the association are steep and irregular, and the soils are coarser textured, shallower, and more droughty than in other places. Practices that conserve the soils and water are difficult to apply. See Appendix C for soils map and detail.

3. Climate

The closest weather reporting station is at River Falls, about 5 miles east of the park. The climate is classified as continental. Winters are cold with moderate snow (38.4 inches); summers are fully developed and warm (70 degree mean June-Aug). Spring and fall are often short with a tendency to extremes in all climate features.

Precipitation for the 5-month period May through September has approximately 65% of the annual normal of 29.57 inches. Prevailing winds are from the northwest for November through April and from the southeast during the remaining months.

The percentage of possible sunshine has averaged between 60 and 70 percent for June through September, near 40% for November and December and between 50% and 60% for the remaining months. (U.S. Department of Commerce, updated).

4. Vegetation

Because of the wide range of topography, sun exposure, steep slopes, cliffs and water resources in the park, a great variety of habitat is present and consequently there is a rich diversity of flora and fauna. The plant communities present within the area are dry prairie, oak savanna, dry oak forest, mesic hardwood, wet bottomland, bottomland forest plus micro-habitats of wet and dry cliffs. A rather large stand of ground hemlock (Taxus canadensis) is found within the park area, and considerable white pine is also found on the upper steep north facing slopes bordering the Kinnickinnic River.

Of the upland areas, approximately 80% or 558 acres is open and is either being farmed or is fallow at the present time. Of the rolling to steep park areas, approximately 20% or 94 acres is open grass land but is being invaded by woody growth.

No endangered or threatened plant species are known to occur in the park.

Additional discussion of park vegetation and recommendations for its management is found in Appendix D.

5. Animal Life

Kinnickinnic Park has a diverse animal population. A total of 36 species of mammals and 140 species of birds are known or thought to inhabit the park property. A number of mammals such as the deer, cottontail rabbit, squirrel, and raccoon are abundant. The red fox, gopher, and weasel are examples of other species which are commonly present.

The diversity of habitat is reflected in the rich variety of bird life observed in the lower Kinnickinnic valley. As many as 85-90 species may be observed on any one day during the migrating period in May. Over 140 species have been identified as nesting in the river valley. This represents approximately 50 percent of Wisconsin's nesting bird species.

The mouth of the Kinnickinnic River is used as a winter feeding area by the bald eagle and osprey, both an endangered species. The red-shouldered hawk which is a threatened species is also present. A more detailed listing of the parks bird and mammal species and recommendations as to the management is found in Appendix E.

6. Water Resources and Fish

The Kinnickinnic River is a relatively shallow, swift flowing river. It has in its riffles and pools, bottom material ranging from rock to sand to mud. However, its bottom is predominantly sand and it carries a considerable bed load of this material. A witness of this fact is the large sand-delta it has built into the St. Croix. This delta comprises about 57 acres and has built outward to within 400 feet of the west bank of the St. Croix.

In order to maintain navigation, the Army Corps of Engineers has found it necessary to dredge the portion of the river adjacent to the Kinnickinnic delta, on a periodic basis. The spoil from the channel dredging operation has been deposited on the Kinnickinnic Delta in the past. This is no longer possible under current statutes. However, efforts are underway to change the state law. If this happens, the delta can receive high priority for a dredge disposal site if there is a need to replenish the sand. The resulting high sandy areas have made it attractive to boaters as a stop for swimming, sunbathing and picnicking.

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*Goddard, S.V., 1970, Species Composition and Density of Breeding Birds of the Lower Kinnickinnic Valley Passenger Pigeon, 32'(4):151-156.

The area of the delta not raised by spoil deposition is about one and one-half feet above the mean summer water level of the St. Croix and is covered with willow and other bottom-land trees. It has a substory of woodland nettles. Both the Kinnickinnic and St. Croix Rivers have good water quality in the area of the proposed park.

The blue sucker, a threatened species of fish, has been recorded from the St. Croix River in Pierce County.

The lower Kinnickinnic River is designated as a Class I trout stream, and Lake St. Croix is a homothermic warmwater lake. The game fish harvest from the lower Kinnickinnic River is insignificant and angling pressure is light. No data is available on fish harvest from Lake St. Croix. Trout fishermen do, however, fish the lower Kinnickinnic and there is an established access point near the County Trunk F bridge. Additional information on the fishery can be found in Appendix F.

II. Present Use and Management

Present management consists of occasional patrol, minor signing, fence removal and general cleanup of the property. Public use of the upland is light and has not been encouraged; however, boater use of the Kinnickinnic delta is established and continues. Fees are collected for overnight mooring of boats with self-contained toilet facilities. Other boats without toilet facilities must leave by 11:00 p.m. Deer hunting is allowed to control population and protect vegetation within the park, especially the ground hemlock. In addition to these practices, approximately 174 acres of upland area are being cropped under a rental agreement.

III. Resource Capabilities

A. Soils potential

Major soils within the property include the Antigo-Onamia association. The soil association occupies a large portion of the upland park area and is suitable for recreational development. The soils have slight limitations for construction of septic tank absorption fields, buildings without basements and picnic areas. These limitations apply to land areas with slopes under 8 percent. Road construction on slopes to 15 percent have severe limitations on the Antigo soils because of the low strength and moderate limitations on Onamia soils due to frost action.

Generally, the soils are droughty in dry weather, have moderate fertility, are moderately permeable and have medium to high internal drainage. Grassland and timber production potential is high on slopes 12% and under. See soils data and maps in Appendix C.

B. Vegetative potential

The upland area of the park is within that portion of Pierce County that was originally prairie. Presently cropped and fallow fields have great potential for being returned to prairie, with scattered red cedar and black and white oak making up the prairie-oak savanna cover type. On shallow soil areas near the cliffs, the trees are very stunted and gnarled which adds to the picturesque vegetation of the upland area.

The second cover type is the pure oak stand located on the hillside bank along the St. Croix north of the Kinnickinnic River mouth. The bottomland hardwoods (third type) are growing on the high water table sand and are in good condition. The fourth cover type includes the north facing slope, and is basically a white pine stand with a mixture of other hardwoods.

The site is poor for all hardwoods and average for pine. Many of the hardwoods are dead or dying with signs of disease infections on the living trees. The intolerant species in the white pine type are beginning to pass out of the picture in favor of more tolerant hardwoods and shrub species.

In addition to these four main vegetative types, a large number of other biotic communities exist. That associated with the ground hemlock is the most evident example. The vegetative cover types could be studied and managed to maintain the floral composition common to them. The educational and aesthetic benefits derived from such a program could greatly add to the overall use and enjoyment of the property. See Appendix D for additional information.

C. Wildlife potential

Kinnickinnic State Park has large and diverse numbers of wildlife. The mature forested areas, abandoned fields, riverbottom and associated wetlands provide very good habitat. With minor vegetative management to insure against mature mono-type forest growth, the park can continue to provide good habitat.

Primary benefits to be derived from the diverse animal life are recreational in nature. Wildlife observation, photography and general nature study would be possible. Small game hunting would not be possible under present laws. However, deer hunting, which is currently allowed to maintain populations and reduce browse damage, is beneficial and could be continued. See Appendix E for a list of bird and mammal species present and their status.

D. Fisheries potential

The fisheries potential on the lower Kinnickinnic and St. Croix River in and adjacent to the park is adequately utilized according to fish management information. No fish habitat projects are presently recommended for either river. However, maintenance of existing fisherperson access to the Kinnickinnic off of CTH F is suggested. See Appendix F for further fish management information.

E. Recreational potential

Based on the size and diverse natural features within the park, a wide variety of recreational activities could be accommodated. Activities such as swimming, picnicking, fishing, hiking, cross country skiing, nature study, group camping and related activities could take place. These pursuits would meet the stated recreational needs of the people and yet could be in keeping with the day-use mission of the park.

Snowmobiling, horseback riding and off-road vehicle use could not be allowed due to the erosion problems associated with the property's soils and steep slopes. Similarly, other as yet unidentified activities would have to be evaluated and approved or rejected based on individual merit and impact on the resource and other users.

F. Land use potential

Lands within the park are classified as: Extensive Recreation Area (ERA), Intensive Recreational Development (IRD), and Scientific (S). The location of these areas is illustrated on the proposed development map in Appendix J.

Intensive Recreational Development (IRD) accounts for approximately 80 acres or less than 7 percent of the total park acreage. Of this, nearly 9 acres will be devoted to beach use, 26 acres for picnicking, 20 acres for selective use areas including the group camp, 5 acres for the office-contact area, 13 acres for roads and 7 acres for trails.

The Scientific Area (S) is approximately 110 acres of unique vegetation, geological formation and wildlife habitat. It is identified on the development plan. Specific boundaries, descriptive information and management guidelines can be found in Appendix G.

The remaining 1,150 acres within the existing boundary is classified Extensive Recreation Area (ERA). It will be managed in accordance with guidelines as set forth in the uniform land use classification system.

IV. Management Problems

A. Physical

1. Erosion

The soils of the park overly outwash sands and gravels on bedrock. Major soils, the Antigo-Onamia Association, are droughty on steep slopes and are subject to erosion. Due to these conditions, gulleying is evident and enlargement and uphill extension are rapid, especially where sod cover is missing. Therefore, special precautions must be considered during road, trail and day-use area construction.

2. Vegetation succession

Succession of grassland into dense brush and tree cover would, by reducing openness, eliminate variety, overlook potential and generally detract from landscape quality. Allowing total natural succession would also eventually cause a reduction in animal and bird species and numbers.

North slope vegetation is also in a declining state and if some management is not initiated, the present diversity and aesthetic appeal of the white pines will be lost. Finally, if the scrub willow which is overtaking the sand delta is not controlled, use of the delta by boaters and others will be lost.

3. Desposition of dredge spoil

Portions of the Kinnickinnic River delta, where dredge spoil has been deposited in the past, are high, sandy, and very attractive to boaters as sunbathing and picnicking areas; however, some of this dredge spoil has been lost due to wind evacuation, recent channel dredging and river cutting. If this loss continues, it is possible the delta could be eliminated as a recreational area. Under present laws, Chapter 30 Wisconsin State Statutes and NR 116, dredge spoil cannot be placed in the floodway thus preventing the placement of additional sand spoil on the delta. However, efforts are underway to change this state law. If this change comes about the delta will be a first priority site for the placement of dredge material if needed for replacement purposes.

4. Steep areas

Many of the steeper slopes are crowned with cliff formations. As these cliff tops offer vistas of the surrounding terrain, they tend to draw people close to areas where a fall could occur.

5. Deer damage

The park has a high deer population and hunting has been allowed in the past to control numbers. If hunting were eliminated, populations would increase greatly and browse damage would increase accordingly. This is of special concern as relatively unique areas of ground hemlock could be destroyed in a short period of time.

B. Socio-political

1. Off-road vehicle use

Unauthorized off-road vehicle use has occurred in the past. It has resulted in erosion and some deep rutting in certain areas. Reclamation of these areas is difficult and expensive. Fortunately, such activity has nearly been eliminated due to occasional patrol, fencing and signing.

2. Waste disposal on Kinnickinnic Delta

The delta of the Kinnickinnic represents a special problem as regards waste disposal because it is within the floodway and nearly impossible to reach by vehicle. Providing toilet facilities will necessitate the use of specially designed, constructed and approved structures. However, such action is necessary to eliminate present unsanitary conditions. Because of its near inaccessibility and projected quantity of refuse which may be discarded, no trash receptacles will be provided on the delta. People will be required to take their refuse with them for later disposal.

V. Recreational Needs of the Region

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

1. Expansion and protection of swimming facilities.

2. Improvement of surface water activities by providing increased public access, channel clearance and acquisition of shoreline to protect aesthetic and recreational values.

3. Protection of the region's rivers and adjacent uplands.

4. The supply of developed campsites is sufficient in this region until at least 1985 while a demand exists for primitive camping facilities.

5. Protection of scenic and historic sites.

6. Development of additional recreation trails for hiking, biking, nature study, pleasure walking, horseback riding and snowmobiling.

7. Development of additional picnic areas.

VI. Management and Development Alternatives

A. Minimal park development - Alternative #1

This alternative would limit park development to: minimum sanitary facilties located near the delta, an upland park area not having an internal road system but rather having parking areas at the periphery of the park adjacent to town roads. These areas would also include wells for drinking water, toilet facilties and a few picnic tables. Trails would complete the development under this proposal.

The results of this action would be:

1. To appreciably limit development costs.

2. To appreciably limit use to boaters and individuals willing to hike into the property, and thereby indirectly restrict access to the park by people with mobility problems such as the aged and handicapped.

3. To necessitate the collection of user fees by patrol in each of the upland parking areas of the property. This would result in high collection costs and reduced revenue.

4. To under utilize the resource and not provide the types and extent of recreational facilities as identified in the 1977 SCORP.

B. Moderate park development - Alternative #2

This park proposal would have an internal road system with single controlled entry, limited recreational development including a swimming beach, boat mooring area, picnic areas, special use areas with group camp, hiking and nature trails with scenic overlooks and related support facilities. Portions of hiking trails meeting design standards for cross country ski trails will be used for skiing in the winter under a dual use concept. Development would also include a contact station with office space and a shop-storage building.

The results of this action would be:

1. To increase development cost considerably over alternative one.

2. To make user fee collection possible at a single point within the park (except the boat mooring charge collected on the delta) and thereby greatly decrease fee collection costs and increase management efficiency over alternative number one.

3. To provide a greater variety of recreational experiences for all park users regardless of physical capabilities and also increase use of the park's resources.

4. To justify acquisition of the property by providing for recreational activities as identified in the 1977 state outdoor recreational plan.

5. To have greater potential for negative environmental impact than alternative #1 due to increased number of park visitors.

C. Intensive park development - Alternative #3

This proposal would include a family campground in addition to the recreational facilities listed in alternative #2.

The results of this action would be:

1. To increase costs over alternative #2.

2. To utilize more of the park's upland resources for development than alternative #2.

3. To increase park use capacity and duration of stay which may put more stress on the resource than either alternatives #1 or #2.

4. To significantly increase park revenue through camping fees.

VII. Recommended Alternative

Alternative #2 is recommended: Moderate Park Development. This would provide for a full complement of day-use facilities. A park road, contact station, picnic areas, beach, trail system and group camp would be included. The plan would provide for some of the recreational facilities needed in the state and region as identified in the 1977 SCORP. The extent of development, covering less than 7 percent of the total park property, and location, predominantly on former agriculture land, mitigates potential environmental impact.

Family camping would not be included as the 1977 SCORP indicates private enterprise and existing campgrounds can accommodate the needs of the region at this time. In addition, off-road vehicles, horseback riding, and snowmobiling would not be allowed due to soil and slope limitations and their resulting erosion potential.

VIII. Goal and Objectives

A. Goal

To provide a scenic state park which will serve the recreational, educational and natural experience needs of the park visitor while preserving the resource for future generations.

B. Objectives

1. To provide recreational facilties to accommodate 250,000 annual visits for such activities as picnicking, swimming, hiking, nature study, fishing, hunting, boating, group camping, special events and cross country skiing.

2. To manage and enhance the park's scenic and landscape quality by restoring prairie areas and insuring vegetative cover type diversity and health for immediate effects with maintenance continuing for the life of the property.

3. To manage and maintain the park's biotic communities and other resources by actions such as, vegetative sanitation programs, replacement plantings and erosion control, thereby insuring their availability and educational value for present and future generations.

4. To protect the endangered and threatened wildlife species that inhabit the park.

5. To accommodate the recreational needs of individuals who are handicapped and/or disadvantaged through proper planning, construction and management of the property.

IX. Proposed Action

A. Land Acquisition

The present park boundary as approved by the Natural Resources Board in December 1978 encompasses 1,324 acres. Of this, 1,034.29 acres are in state ownership. The ownership map in Appendix H identifies the park boundary and parcels yet to be acquired.

The 60 acres east of County Trunk Highway F are to be excluded from the park because of the high cost of improvements and the fact that the entire 60 acres is not needed for buffer purposes. The area is included as a part of the U.S. Fish and Wildlife Service proposal to protect the Kinnickinnic Riverway.

Should the Fish and Wildlife Service project not materialize it is the intent of the Department to investigate the feasibility of purchasing a scenic easement along the river from the park to River Falls. Such a proposal would be preceded by public meetings and subject to Board approval.

The proposed elimination of 60 acres east of CTH F will result in a final acreage goal of 1,264 acres for Kinnickinnic State Park.

The total estimated land acquisition cost is $1,596,254.00. Of this, $1,146,254.00 has already been spent. 229 acres in the southern portion of the park remain to be acquired. All land is classified priority 1 acquisition.

B. Development

The overall development of the park is shown on the Development Plan Appendix I.

In accord with the park's mission, development will be primarily limited to day-use facilties. Major development will consist of an internal road system (approximately 2.25 miles in length) located north of the Kinnickinnic River. The park entrance will be located off the east-west township road approximately ¼ mile from the junction of CTH F. The park entrance visitor station (PEVS), including administrative offices, and the service building, consisting of a combined shop and unheated storage, will be located near the park entrance and will share common utilities. A secondary park road will run eastward to make available the use of the east end of the property north of the Kinnickinnic.

Four day-use facilities will be located off the main park road. The first one will be approximately 1,400 feet west of the PEVS. It will include parking for 14 cars, several picnic tables, a well, and a pit toilet. The second, a picnic area with associated play area, will overlook the big bend in the Kinnickinnic River located approximately at the east-west midpoint of the park. Proceeding westward, the next major day use area will be at the head of a ravine leading down to the St. Croix. This day use and picnic area will have sufficient parking to accommodate beach users. A change stall will also be included for beach user convenience. The beach's proposed location is on the St. Croix immediately north of the delta at the foot of this ravine. A foot path and narrow gated service road will follow the ravine from this area to the beach. Another picnic area will be served by the main park road and it will overlook the St. Croix River north of the previously described day use site. It will have a play field and equipment associated with it. All of these day use areas will include parking.

On the east end of the park, served by the secondary road, there will be two special use areas including the group camp facilities. Use of these sites will be regulated by the park superintendent and may be open for general day use when not being used by group campers. They will have minimal development with toilets, water and parking provided.

Three shelters will also be included in the park development. They will be located in the far east, central and western day-use areas of the park.

The beach, on the St. Croix River north of the Kinnickinnic River mouth, will include a change stall and sealed vault toilet building. If permission is granted both structures will be placed in the floodway in accord with the state, county and local shoreline zoning ordinances. If not, they will be located in the valley above the flood plain. In addition, the delta, south of the Kinnickinnic River mouth, will have toilet facilities located on a floating barge. Owners of all types of watercraft will then be able to use the delta for overnight use. A houseboat will be modified to serve as an office for boat mooring fee collection and will also be used for minor maintenance work.

Proposed for the park, north of the Kinnickinnic River, are approximately 4 miles of hiking trail, 1.2 miles of nature trail, and 2.30 miles of mowing strip which is suitable for a prairie hiking trail. This will result in about 7.5 miles of trail. As mentioned previously, portions of the hiking trail will serve the dual purpose of a hiking and cross-country ski trail. Development will be in accord with guidelines outlined in the operations and maintenance handbook. Additional trail construction may take place in the future on lands owned south of the Kinnickinnic if use and demand warrant.

Parking will be limited to approximately 320 stalls excluding those provided for fishing access off of CTH F.

In addition to these man-made structures, land restoration must be undertaken to complete the development task. Trees and flowering food producing shrubs should be planted to provide visual buffer from adjacent lands. Furthermore, these plants should increase the amount of "edge" within the park. Edge is where woodlot meets open area; there is usually a transitional zone of shrubs. Edge is highly productive in terms of plants and animals present and should provide nature study benefits. Removal of undesirable tree species and poison ivy should be initiated in areas where the desired cover type is being taken over or lost.

Land restoration should also include planting the large open areas of the park with native prairie grasses and forbs to reduce the maintenance costs, while at the same time adding visual variety to the scene and a more diversified base for a nature interpretive program in the park.

This planting program should be initiated as soon as possible and proceed on a yearly basis.

Erosion control is also important to maintain the resource and in some instances reclaim what has been lost in the past. Water control structures and ravine restoration should be incorporated into the overall development plan based on recommendations provided by the Soil Conservation Service. As with the vegetation restoration, this work should begin as soon as possible.

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

Phase #1 $26,000 (1977-79 budget carryover)

Property cleanup, fencing, gating, tree planting, signing, etc.	$ 8,500
Delta office - boat	$ 12,500
Erosion Control - land reclamation	$ 5,000

Phase II ($610,700)

2½ mile entrance road and Park Entrance Visitor Station (PEVS) loop construction	$405,000
PEVS construction and well	$ 23,500
Valley day use area parking lot (14 cars)	$ 4,200
Kinnickinnic overlook picnic area parking lot (18 cars)	$ 5,400
Delta access and picnic area development	
160 stall parking lot	$ 48,000
well and handpump	$ 4,500
8-unit pit toilet	$ 17,000
change stall	$ 5,000
80 picnic tables and 40 grills	$ 9,600
site preparation and landscaping	$ 10,000
service road to beach	$ 18,000
miscellaneous	$ 2,000
Beach area development	
site preparation and landscaping	$ 5,000
4-unit pit toilet	$ 14,000
change stall	$ 5,000
10 picnic tables and 5 grills	$ 1,500
Delta float toilet	$ 15,000
St. Croix overlook picnic area parking lot (24 cars)	$ 7,200
Prairie view picnic area parking lot (12 cars)	$ 3,600
Nature trail - 24 stall parking lot	$ 7,200

Phase III ($410,860)

Shop-storage building	$150,000
PEVS landscaping	$ 3,000
Entrance sign	$ 4,000
Valley picnic area development	
well and handpump	$ 5,000
4-unit pit toilet	$ 15,000
14 picnic tables and 7 grills	$ 2,100
Prairie View picnic area development	
4 unit pit toilet	$ 14,000
shelter	$ 10,000
site preparation and landscaping	$ 2,500
Kinnickinnic overlook picnic area development	
shelter	$ 10,000
well and handpump	$ 4,500
4-unit pit toilet	$ 14,000
site preparation and landscaping	$ 5,000
18 tables and 9 grills	$ 2,160
miscellaneous	$ 1,000
St. Croix overlook picnic area development	
well and handpump	$ 4,500
4-unit pit toilets	$ 14,000
10 picnic tables and 5 grills	$ 1,200
site preparation and landscaping	$ 2,500
miscellaneous	$ 2,000
Complete use area amenities and playground equipment	$ 15,000
Special use area #1 development	
40 stall parking area	$ 12,000
4 unit pit toilet	$ 5,000
well and handpump	$ 5,000
20 picnic tables and 10 grills	$ 3,000
site preparation and landscaping	$ 3,000
miscellaneous	$ 2,000
Special use area #2 development	
well and handpump	$ 5,000
4 unit pit toilet	$ 14,000
18 picnic tables and 9 grills	$ 2,700
shelter	$ 10,000
18 stall parking area	$ 5,400
site preparation and landscaping	$ 3,000
miscellaneous	$ 2,000
Trail development 7.5 miles	$ 12,300
Trees, shrub and prairie restoration planting	$ 30,000
Water control structures - reclamation of eroded areas	$ 15,000

Total development costs including engineering and contingency are estimated at $1,047,560 (1980 dollars).

C. Management

1. Facilities management

At present, Kinnickinnic State Park is a part of the Willow River park group and is serviced from there. Upon development, a permanent manager will be assigned and have responsibility for the operation and management of the property. As a unit of the state park system, Kinnickinnic will be developed and managed under Chapter 27, Laws of Wisconsin, specifically Section 27.01, which governs state parks. Strict adherence to the Lower St. Croix National Scenic Riverway guidelines will also be met.

The property will be managed under the provisions of Wisconsin Administrative Code 45 which contains the rules pertaining to the conduct of visitors in state parks, forests and other properties under the jurisdiction of the DNR.

Current operations are aimed at preventing damage to existing resources. Approximately 2,400 hours of LTE, labor ($7,200) and $2,000 for support services was expended during 1978-79 fiscal year.

The budget for 1979-80 includes $14,900 for salaries, travel and materials. Funds totaling $15,200 are allocated for similar items during the 1980-81 fiscal year.

Upon development, personnel needs are projected to include a park superintendent, park ranger II, 2-park rangers I's and 3 man years of summer LTE labor. Total yearly cost, based on 1981 salary estimates, is $60,000. Services to be provided by park personnel include fee collection, security patrol, litter and garbage pickup, and maintenance of the use areas. Routine law enforcement duties will be handled by park personnel with support available from local DNR wardens, and from the county's sheriff officers.

A matter related to management and use of the property includes monitoring the size of the delta. In particular, the amount of sand available for recreational use due to past dredge spoil deposit should be closely watched. If it is found that the resource is decreasing in size and quality, a change in present dredge disposal laws will be requested. Such action would be taken with consideration given to the GREAT study report findings.

Projected equipment needs necessary for operation and maintenance of the property include: one automobile, two ½-ton pickups, one 1-ton dump truck, tractor mower, tractor with front end loader, miscellaneous small equipment such as handmowers, chain saws, air compressor, boat and shop tools. In addition, a radio system will be needed for the vehicle, park office and a shop for communications with other Willow River work unit properties, DNR wardens and local police officials. The radio system is already funded under a statewide plan.

Summary of Facility Management Costs

1.	Personnel needs 6.82 FTE	-	$60,000/yr (1981 salary estimate)
2.	Line 2/3 support	-	$12,000/yr (1980 dollars)
3.	Line 4000 equipment needs	-	$48,000 (1980 dollars)

Land south of the Kinnickinnic, of which 98 acres are presently being rented for agricultural crops, will continue for at least the next 5 years. This policy will be reevaluated at that time and if deemed feasible, tree planting and prairie restoration will be initiated to replace farm fields.

2. Vegetative management

Vegetative management techniques will be used in accordance with the tree cutting policies established in Manual Code 2532. For safety, individual trees that may present a hazard to the visiting public are to be removed. Aesthetic objectives may be met and perpetuation of a forest stand may be deemed necessary to prevent an undesirable forest cover. Willow tree growth on the delta will also be controlled to insure against loss of the recreational sand areas.

Edge, which is the area where forest cover meets open land and is usually composed of shrub cover, will be maintained. Edge is highly productive in terms of flora and fauna species and number. It provides the amenity of shade to the park visitor yet gives them the visual pleasures of overlook.

Some open areas of the park will be planted with native prairie grasses and forbs. This will reduce maintenance costs and add visual diversity as well as provide a diversified base for nature interpretation programs in the park. The prairie fire protection mowing strips will provide trails for walking and hiking pleasure.

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

3. Wildlife Management

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

Deer hunting, which has been allowed in the past, should be continued to keep populations at a manageable level and reduce damage to native plants.

4. Fish management

There are no fish management projects (stocking or habitat improvement) existing or proposed for waters within or adjacent to the park. The fishing access and parking area located off CTH F will be maintained by the park.

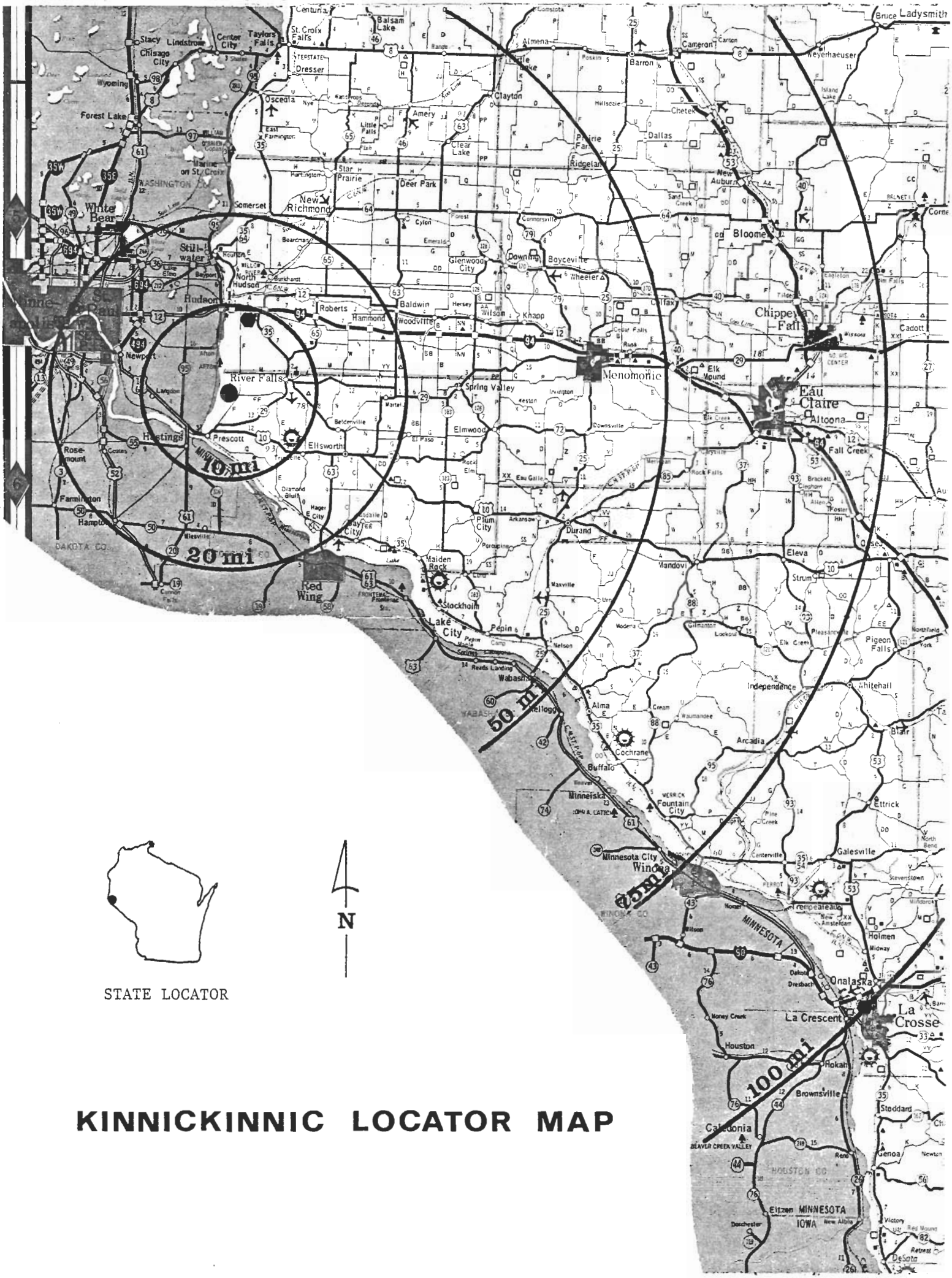
5. Endangered and threatened species

If endangered or threatened animals or plants are discovered in the course of park development, construction will be suspended until the District Endangered Species Coordinator or Office of Endangered and Nongame Species can be consulted. Significant sites will be preserved.

A biological inventory of the park to update past information should be conducted as soon as funds become available.

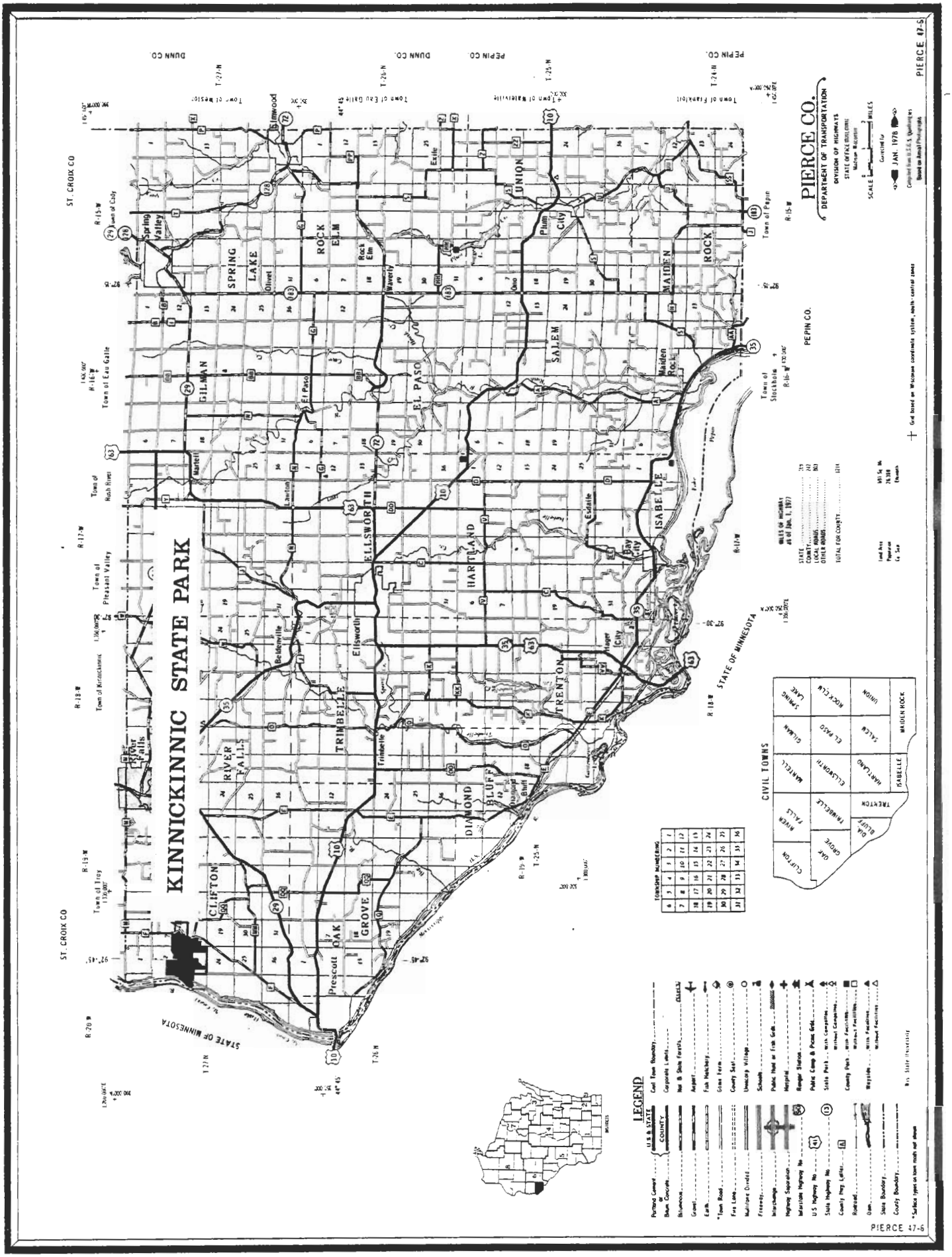
APPENDIX A

LOCATOR MAP



KINNICKINNIC LOCATOR MAP

FIGURE 2. Location: Kinnickinnic State Park, Pierce County



APPENDIX B

PRIOR BOARD ACTION
and
LISTING OF SUPPORT

6.C-8 Establishment of Kinnickinnic State Park, Pierce County. Acceptance of three land donations.

Mr. and Mrs. Carl A. Pemble, River Falls - 20 acres; Mr. and Mrs. Homer Creswell, River Falls - 5 acres; Mr. George E. Richter, St. Paul - 12-15 acres.

Mr. Helland introduced Mr. James M. Harrison, Hudson, Executive Director, Minnesota-Wisconsin Boundary Commission.

Mr. Harrison stated that the Minnesota-Wisconsin Boundary Commission is pleased with the recent progress made in connection with the proposed establishment of the Kinnickinnic State Park. He pledged the continued cooperation of the Commission in providing additional coordination liaison with local governmental agencies, land owners, and other groups. Mr. Harrison pointed out that there is virtually no organized opposition to the project.

The Board was informed by Mr. Harrison that the Commission would be communicating with the Environmental Protection Agency and the Coast Guard regarding waste from watercraft.

Mr. Helland stated the Land and Business Committee recommends, and he moved, that the Department be authorized to negotiate with the landowners to determine acquisition costs for the proposed park area; that the Department estimate the cost for developing the area; and that after these costs have been estimated a report be submitted for consideration by the Committee.

The motion was seconded by Mr. Potter.

Mr. Minahan questioned the irregularity of the boundaries and was informed by Mr. Welsh that the portion that extends to the south is a valley, rugged in nature, which should be protected, while the north portion consists of comparatively good agricultural land. Mr. Welsh further stated that the boundary undoubtedly could be altered somewhat depending on which lands are required.

Mr. Helland further informed Mr. Minahan that Mr. Welsh had been directed to determine what use one of the landowners will make of the land he retains if the park is established.

When put to a vote, motion was carried unanimously.

6.C-9 Authorization for sale of .88 acre of land in Northern Highland State Forest; conveyance to State of 11.96 acres - Martin Krutak.

The Land and Business Committee, Mr. Helland said, recommends, and he moved, approval and adoption of the Findings of Fact and Order authorizing the Department to convey .88 acre of land in Government Lot 3, and NE NW, Section 31, Township 42 North, Range 7 East, valued at $3,000 to Mr. and Mrs. Martin Krutak, Boulder Junction, by quit claim deed for which Mr. Krutak will pay the State of Wisconsin the sum of $750 and in addition convey to the State 11.96 acres of land valued at $2,250; further, that a copy of the Findings of Fact and Order be incorporated in and made a part of these minutes.

The motion was seconded by Mr. Potter.

When put to a vote, motion was carried unanimously.

Wildlife Area in Portage County before making a recommendation to the Board, but he said the Committee does recommend that the Department be authorized to negotiate for options on property in the area, and he so moved.

The motion was seconded by Mr. Dahl.

When put to a vote, motion was carried unanimously.

6.C-8 Proposed automobile purchase.

Mr. Helland said the Land and Business Committee recommends and he moved approval of the purchase of 103 new 1973 automobiles at an estimated cost of $180,725 over and above the value of the trade-out units; also, the purchase of an additional 15 automobiles at an estimated cost of $39,750 with no trade-out units.

The motion was seconded by Mr. Dahl.

When put to a vote, motion was carried unanimously.

6.C-9 Proposed purchase of trucks.

Mr. Helland said the Land and Business Committee recommends and he moved approval of the purchase of 88 trucks at an estimated cost of $296,100, and 24 tractors, 5 pieces of heavy equipment and 13 pieces of miscellaneous equipment at an estimated cost of $163,625.

The motion was seconded by Mr. Dahl.

When put to a vote, motion was carried unanimously.

6.C-10 Proposed purchase of station wagons.

The Land and Business Committee recommended and Mr. Helland moved approval of the purchase of twelve 1973 station wagons and the trade-in of 11 station wagons at an estimated cost of $29,650 over and above the trade-out values.

The motion was seconded by Mr. Dahl.

When put to a vote, motion was carried unanimously.

6.C-11 Pending Land and Business matters.

6.C-11a - Establishment of Kinnickinnic State Park - Pierce County. Acreage goal - 1,045 acres. (Item 6.C-6, Minutes of April 19, 1972.)

Land acquisitions.

1. 332+ acres (9,350' river frontage) from Mr. and Mrs. Carl Pemble, River Falls - $380,000. Price per acre - $1,144.58. Tenure - 1958.

2. 304.50 acres (8,600' river frontage) from Mr. and Mrs. George Richter, St. Paul, Minnesota - $247,000. Price per acre - $811.17. Tenure - 1958.

3. 135 acres (3,036' river frontage) from Mr. and Mrs. Homer Creswell, River Falls - $79,000. Price per acre - $585.19. Tenure - 1948.

Gifts of land.

1. Mr. and Mrs. Pemble - 20 acres ($20,000).
2. Mr. and Mrs. Richter - 20 acres ($17,000).
3. Mr. and Mrs. Creswell - 5 acres ($2,500).

In presenting this item, Mr. Helland stated that the Land and Business Committee inspected the area on two occasions but that he had some reluctance about approving the establishment of the park until the staff agreed upon an alternate entrance.

Mr. Helland said the Land and Business Committee recommends and he moved approval of the establishment of the Kinnickinnic State Park in Pierce County, with an acreage goal of 1,045 acres.
The motion was seconded by Mr. Dahl.

Mr. Potter questioned whether the proposed boundary includes the Donn Anderson property. Mr. Helland replied that it does - that Mr. Anderson has been reluctant to deal with the Department, but is now considering five alternate proposals, and it is hoped that an agreement can be reached.

Assuming that the motion for establishment of the park will be followed by a motion to exercise the listed proposed purchases, Mr. Potter stated that he felt if the Anderson property is ultimately important for development of the park, it should be acquired rather quickly before there is any private development which could increase the value considerably.

Mr. Reinke said the Department has negotiated for the Anderson property, and he thought when Mr. Anderson gets ready to sell, the Department will be able to acquire the land from him. He said Mr. Anderson has reiterated that he does not wish to sell his property at this time - that he wishes to continue to farm it. In the interim, the Department proposes to use the town road for entrance to the park. This would pass through the Kuschel property, on which the Department has an option to purchase. A temporary contact station, rather than a permanent one as initially proposed, would be erected at this location instead of at the entrance road off County Trunk F. Mr. Reinke noted that not buying the Anderson property at this time will not in any way affect the total development of the area for recreation use, but that it will change the entrance pattern.

Mr. Potter recalled that during an inspection of the property, Mr. Reinke had stated that the Anderson property was necessary for development of the park, and he asked him if he had changed his opinion. Mr. Reinke said he had not. In past years, he said, the Board has established projects and then the Department starts negotiating for the various properties. In this instance, the Board instructed the Department to negotiate with the major landowners, after which they would consider establishing the park and exercising the options. Mr. Reinke stated that, in his opinion, it is a rare instance when the Department can buy all of the land within a park boundary prior to establishment of the area. He noted that Devil's Lake State Park is 62 years old and there are still 13 tracts of privately owned land within the initial boundary.

Mr. Potter expressed concern that unless the Anderson property is purchased expeditiously, the State will have to pay a much higher price for the land which will result in more tax dollars for the citizens of the State. He said he knew there has been reluctance on the part of the Department and the Board to even mention the word "condemnation" but he felt there is a time when the Board is going to have to consider this as the governmentally best option.

It was Mr. Potter's opinion that if the land cannot be negotiated reasonably, the Board will have to decide whether the need for the property is sufficient to consider the use of its condemnation powers provided by the Legislature.

Mr. Helland said he felt Mr. Potter's remarks were well taken but that to him condemnation was philosophically repugnant. He noted that the Board has been criticized for condemning property but he pointed out that during the three years he has served on the Board there has been only one condemnation action, and that was a friendly suit in connection with the Bong area. Mr. Helland suggested that the Department accelerate its negotiations with Mr. Anderson for the purchase of his property. Mr. Minahan questioned whether this action should be extended to the Bennett and the Matros properties. In response, Mr. Reinke stated that it is intended to acquire the Matros area by easement rather than in fee as there would not be any development on that area. He said the Bennett property is not critical to the establishment of the park, and the Department has not negotiated for the purchase of it - that the Department feels the available funds should be spent for lands of higher priority.

In answer to Mr. Helland's query about the status of the Richter property, and what restrictions have been placed on it, Mr. Reinke pointed out on a map the location of the Richter home and indicated that Mr. Richter retained ownership of that area. Mr. Reinke said that at the request of Mr. Tyler a check was made and it was learned that the county has a zoning ordinance and a town zoning ordinance, with greater restrictions than those of the county, will be considered by the town board in November. As presently written but not yet approved, the town ordinance will require a setback of 75 feet from the embankment, a maximum of 30 feet in height for any building constructed, a minimum of 20,000 square feet in lot size, and only single family dwellings would be approved. Mr. Tyler said that in addition to the county and town zoning ordinances he had in mind to make it a part of the consideration that Mr. Richter would not create anything that would not be compatible with the park.

Reference was made by Mr. Minahan to Mr. Potter's suggestion. He said he thought the Department should negotiate with Mr. Anderson until the end of this year and if a satisfactory option has not been obtained by that time the matter should be referred to the Board in January for a determination as to whether or not it should proceed with condemnation of the property. He commented that unless the Department uses the facilities of the laws, it is imposing on the taxpayers of the State an unwarranted burden.

Mr. Jordahl concurred in the observations of Mr. Potter and Mr. Minahan regarding additional costs to the citizens of the State, and noted that the Department is incurring a small additional expense at this point in constructing a temporary contact center while negotiations with Mr. Anderson are proceeding. He added that he would like to explore further Mr. Tyler's thoughts with regard to exercising land-use controls on the Richter property. Mr. Voigt said he thought if such action were taken it would require an amendment to the option as no such stipulation was included in it and the option extensions were to expire shortly.

In response to Mr. Tyler's inquiry of whether any other property owners are retaining property adjacent to the boundary of the park, Mr. Reinke pointed

out the tracts which will be retained by Mr. Kuschel and Mr. Creswell. Mr. Tyler said he felt the zoning restrictions, as well as those he had previously discussed with the Department, should apply to these properties.

Mr. Helland agreed to withdraw his motion, and Mr. Dahl his second. Mr. Minahan then moved adoption of the following resolution - resolved that the Kinnickinnic State Park be established with an acreage goal of 1,045 acres; further resolved that the options to purchase the properties of Mr. and Mrs. Carl Pemble, River Falls, Mr. and Mrs. George Richter, St. Paul, Minnesota, and Mr. and Mrs. Homer Creswell, River Falls - a total of 771.5 acres - at the prices set forth be approved; further resolved that the gifts of 20 acres by Mr. and Mrs. Pemble, 20 acres by Mr. and Mrs. Richter, and 5 acres by Mr. and Mrs. Creswell be accepted; further resolved that unless negotiations result in a satisfactory option for the acquisition of the Donn Anderson property within the park boundary by December 31, 1972, the matter be referred to the Board at its January meeting for consideration of condemnation of the property; and further resolved that negotiations be carried out to impose limitations on the remaining property owned by Mr. Richter south of the park boundary to prevent any development on that property inconsistent with the development of the park.

The motion was seconded by Mr. Potter.

Mr. Tyler suggested in the light of the negotiations carried on by the Land and Business Committee with the grantors, that two motions be presented - one to establish the park and approve the purchase of the three properties listed and the gifts of lands, and a second motion which would relate to the condemnation of the Anderson property. Mr. Minahan agreed to amend his resolution.

As amended, Mr. Minahan's motion is -

Resolved that the Kinnickinnic State Park be established with an acreage goal of 1,045 acres; further resolved that the options to purchase the properties of Mr. and Mrs. Carl Pemble, River Falls, Mr. and Mrs. George Richter, St. Paul, Minnesota, and Mr. and Mrs. Homer Creswell, River Falls - a total of 771.5 acres - at the prices set forth be approved; further resolved that the gifts of 20 acres by Mr. and Mrs. Pemble, 20 acres by Mr. and Mrs. Richter, and 5 acres by Mr. and Mrs. Creswell be accepted; and further resolved that the acquisition with Mr. Richter be negotiated to impose limitations on the remaining property owned by him south of the park boundary to prevent any development on that property inconsistent with the development of the park.

The amended motion was seconded by Mr. Potter.

Mr. Jordahl expressed concern about terms of the development plan. He pointed out that the park is situated next to more than two million people and he urged that the Department reexamine the concept of camping in a park as close as this one is to a population center. He said it is obvious the Department will not be able to meet the demands and noted there are alternate solutions to a park that is going to be heavily used by a metropolitan population.

Mr. Jordahl's second suggestion was that the Department explore ways and means of insuring that it is discriminating in favor of those youth groups in society that are discriminated against in terms of usage of a juvenile

group campground. He said his reference is specifically to those who are of low income or minority groups in the metropolitan area of the Twin Cities. Mr. Minahan observed that the action of the Board today is to establish the park - that it is not approving the details of the uses of the area. Mr. Voigt concurred, stating that at this time the plans presented by the Department are preliminary and that when detailed development plans are being prepared for presentation to the Board, Mr. Jordahl's suggestions will be given consideration.

When put to a vote, the amended resolution was adopted unanimously.

Mr. Minahan then moved that unless negotiations result in a satisfactory option for the acquisition of the Donn Anderson property within the park boundary by December 31, 1972, the matter be referred to the Board at its January meeting for the purpose of considering condemnation of the property.

Mr. Potter suggested that the last phrase "for the purpose of considering condemnation of the property" be deleted from the motion.

Mr. Minahan agreed to amend his motion. He moved that unless negotiations result in a satisfactory option for the acquisition of the Donn Anderson property within the park boundary by December 31, 1972, the matter be referred to the Board at its January meeting.
The motion was seconded by Mr. Jordahl.

Mr. Pemble, an owner of land bordering the park boundary, said he is willing to abide by any building restrictions and he was certain that Mr. Richter would, too. He also said he thought the Anderson property could be purchased without instituting condemnation proceedings.

Mr. Dahl stated that he was in attendance at a meeting in Menominee County when the Menominees were told by Federal employes that their lands on the Wolf River would not be condemned provided they did not develop them. He wondered if such a condition could apply in this particular case. Mr. Minahan replied that increases in values are caused not only by virtue of development but by the passage of time, and he thought the Board should take both of these factors into consideration in imposing that burden on the State. Mr. Dahl said he felt this situation could be different - that this could be a case of someone who wanted to continue farming and if such were the case he would support that individual provided it was not his intention to develop the area for the purpose of getting a higher price for the land. Mr. Helland pointed out that one of the five proposals made to Mr. Anderson was that a life tenancy be granted to him and also to his mother.

Mr. Potter recalled that the Department and the Board have opposed, through at least the last three legislative sessions, legislation which would take away the Department's right of condemnation. He said it was his understanding that the rationale that this Department presented before the legislative hearings was that if the right of condemnation were taken away, there would be situations where the State could not acquire certain properties - that someone is going to hold up the State to the point that it cannot develop a park properly.

The following observation was made by Mr. Potter:

Mr. Reinke has advised the Board that the Anderson property is a very necessary part of this park project; the very fact that the park is established around this property is going to increase the value of it; that if the park is established and campgrounds are developed, without making any other changes the Department has raised its own purchase price of the property. Mr. Potter said he thought it was poor government to proceed in that manner; that he did not think the word "condemnation" should be used in the motion because it is inherent when the matter is discussed in January, if negotiations for the property have failed, that the Board will consider all of the alternatives available to it, and certainly condemnation is one of them. However, if the Board wishes to make the motion stronger, use of the word "condemnation" is satisfactory to him. Mr. Minahan said he did not feel the situation should be disguised - that the Board will have no options in January other than a voluntary purchase at a price or condemnation.

Mr. Tyler explained that when the Land and Business Committee, other members of the Board and members of the Department staff called on Mr. Anderson to discuss the purchase of his property, Mr. Anderson brought up the subject of condemnation. Mr. Tyler said he and Mr. Helland assured him they were not there with any threat, and Mr. Tyler stated that that is the reason he asked Mr. Minahan to amend his resolution - that he is in favor of the establishment of the park but that he wants to be consistent in negotiating the purchase of the Anderson property.

When put to a vote, the amended motion was carried unanimously.

6.C-11b Flambeau River State Forest land acquisition - Rusk County.
(Item 6.C-2, Minutes of July 27, 1972.)
120 acres (1,815' flowage frontage) from Edward and Mary Sobieski, Hawkins - $50,000. Price per acre - $416.67. Tenure - 1940.
(Mr. Minahan acting as Chairman).

Mr. Helland reported that the Land and Business Committee inspected the Sobieski property. He said it blocks in well with State-owned lands in Rusk County and will add an excellent tract to the forest. In addition, it will provide 38 acres of excellent flowage for recreational enjoyment and protect against possible infringement by incompatible developments.

Mr. Helland said the Land and Business Committee recommends and he moved that the purchase of 120 acres of land from Mr. and Mrs. Edward Sobieski, Hawkins, at a price of $50,000, be approved.
The motion was seconded by Mr. Dahl.

Mr. Tyler informed the Board that the State now owns the east third of the flowage, which has been stocked with bass and panfish. As the only road to the flowage is through Mr. Sobieski's barnyard, Mr. Tyler felt it was in the best interests of the State to purchase the land rather than have it sold to some individual whose interests might not be compatible with those of the State.

6.B-9 Authorization to request bids - construction of Montello Ranger Station, Marquette County.

Mr. Jordahl informed the Board that the Department is requesting permission to solicit bids for construction of the Montello Ranger Station. Preliminary plans involve a 40' x 100' steel building which will include a 24' x 40' office area, a 24' x 40' heated storage area for fire equipment and a 52' x 40' cold storage area. The estimated cost of construction is $75,000.

The Forestry, Wildlife and Recreation Committee recommended and Mr. Jordahl moved that the Department be authorized to request bids as requested.

The motion was seconded by Mr. Fox.

When put to a vote, motion was carried unanimously.

6.B-10 Pending Forestry, Wildlife and Recreation matters.

None.

6.B-11 Master plans for major facilities of Department of Natural Resources.

Mr. Jordahl stated that an additional item discussed by the Forestry, Wildlife and Recreation Committee relates to the preparation of master plans for all major facilities of the Department of Natural Resources; such master plans should be prepared within the next several years.

Mr. Jordahl said the Committee would like to suggest to the Board that perhaps by the February meeting -- or perhaps in March -- the Department present its plan for developing master plans for important facilities, including their best estimates as to how much time would be required to complete the project.

It was Mr. Jordahl's opinion that the planning should be interdisciplinary, drawing on all the resources within the Department -- fisheries, game, forestry, park management, the economists, the landscape people and the engineers. He said the Committee would like to know how the Department proposes to accomplish working with this kind of a team in the master planning process. In the Committee's judgment, Mr. Jordahl said, the important alternative policy questions with regard to management of State lands should be highlighted and presented to the Board for the policy decision. Plans should also provide for the establishment of very explicit goals, thinking in terms of 25 to 50 years and in shorter term objectives that can be related to the biennial budget process.

Mr. Jordahl further stated: There should be some judgments made in terms of priorities for acquisition and development within each project and then also with conflicts in present

and potential future conflicts in terms of use of private lands adjacent to State facilities. Plans should provide both for written and graphic presentations again with the policy questions and budget implications illuminated. There should be a clear identification within the district organization as to who has the responsibility for overall management once the management plan has been approved by the Board.

Mr. Jordahl noted that since he had served on the Forestry, Wildlife and Recreation Committee there had been a number of instances where, in the absence of a master plan, there have been conflicts. In stating that he had spent considerable time on the policy questions, he referred to the St. Croix Wild River proposal.

Mr. Jordahl further stated that the Sierra Club brought to his attention recently a conflict on the south branch of the Pike River, which is authorized by Wisconsin statutes as a part of the wild river system. In this instance a stream improvement project was instituted by the Department, using private funds.

Reference was made by Mr. Jordahl to Kinnickinnic State Park. He said there were some important policy implications with regard to the development plan that were as important as the authorization of the project in the first instance.

Mr. Jordahl also referred to an article in the Milwaukee Journal regarding the road that was constructed between the two units in the Terry Andrae-Kohler State Park, which he said is an example of the kinds of conflicts that develop. He said he was not taking a position as to what was right or wrong but felt if a team had worked on this project and a master plan had been presented to the Board, the conflict might have been avoided.

Another instance referred to by Mr. Jordahl was the White River project in Bayfield County where some timber cutting and some illegal timber cutting was done. Mr. Jordahl said the question, in his judgment, should have been carefully thought through as to whether there should have been any timber cutting in the first instance, especially in view of the fact that this project is related very closely to areas which are now in the National Wilderness System.

Chairman Minahan said the Department would be instructed to report to the Board as requested by Mr. Jordahl.

Summation of Support for Establishment of A State Park on the Kinnickinnic

a. The Wisconsin Outdoor Recreation Plan 1966.

b. Upper Mississippi National Recreational Plan

c. Mississippi Regional Planning Commission

d. Minnesota-Wisconsin Boundary Area Commission, February 1969.

Petitions and Resolutions

a. River Falls Chamber of Commerce

b. River Falls Common Council

c. River Falls Planning Commission

d. River Falls Park Board

e. Town of Clifton (does not oppose) Pierce County

f. Town of Troy, St. Croix County

g. St. Croix County Board of Supervisors

h. Tuesday Club, River Falls

i. League of Women Voters

j. River Falls University Students

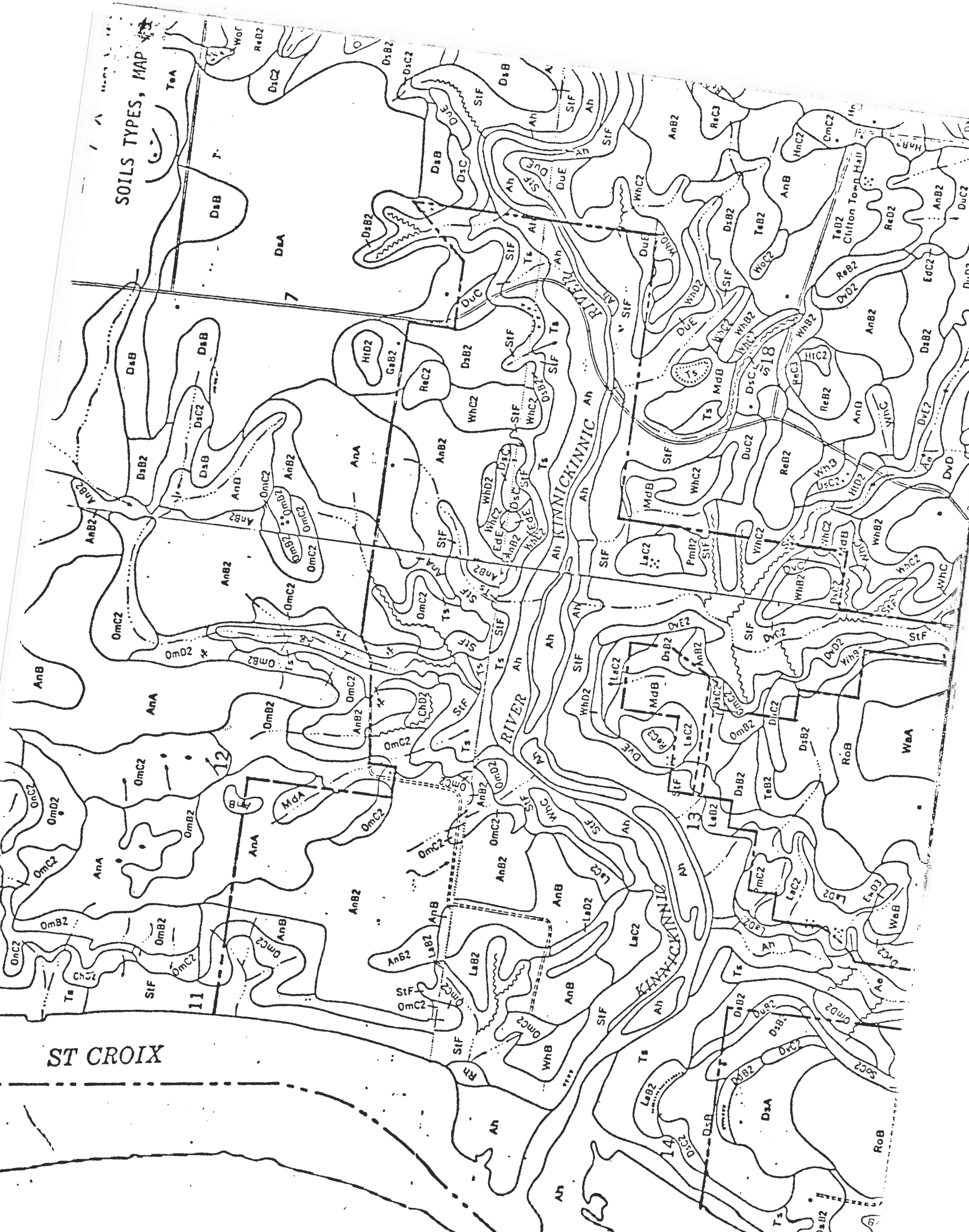
k. Minnesota-Wisconsin Boundary Area Commission

l. Scientific Areas Preservation Council

Also received in support of the park were a large number of letters and petitions from private individuals.

APPENDIX C

SOILS MAP AND SOILS MAP LEGEND


SOILS TYPES, MAP
ST CROIX
KINNICKINNIC RIVER
RIVER
KINNICKINNIC
Clifton Town Hall
7
12
11
18
13
14

SYMBOL	NAME
Ad	Adrian muck
Ae	Alluvial land, loamy, nearly level
Ag	Alluvial land, loamy, gently sloping
Ah	Alluvial land, sandy
Al	Alluvial land, wet
AmA	Almena silt loam, 0 to 2 percent slopes
AmB	Almena silt loam, 2 to 6 percent slopes
AmB2	Almena silt loam, 2 to 6 percent slopes, moderately eroded
AnA	Antigo silt loam, 0 to 2 percent slopes
AnB	Antigo silt loam, 2 to 6 percent slopes
AnB2	Antigo silt loam, 2 to 6 percent slopes, moderately eroded
Ar	Arenzville silt loam
AsB	Ariand loam, 2 to 6 percent slopes
AsC2	Arland loam, 6 to 12 percent slopes, moderately eroded
Au	Auburndale silt loam
BfE2	Boone fine sand, 12 to 35 percent slopes, eroded
BnB2	Boone loamy fine sand, 2 to 6 percent slopes, eroded
BnC2	Boone loamy fine sand, 6 to 12 percent slopes, eroded
BrA	Burkhardt loam, 0 to 2 percent slopes
BuA	Burkhardt sandy loam, 0 to 2 percent slopes
BuB	Burkhardt sandy loam, 2 to 6 percent slopes
CoA	Chaseburg silt loam, 0 to 2 percent slopes
CoB	Chaseburg silt loam, 2 to 6 percent slopes
ChB	Chetek sandy loam, 2 to 6 percent slopes
ChD2	Chetek sandy loam, 12 to 20 percent slopes, moderately eroded
Cl	Clyde silt loam
DaA	Dakota loam, 0 to 2 percent slopes
DaB	Dakota loam, 2 to 6 percent slopes
DaC2	Dakota loam, 6 to 12 percent slopes, moderately eroded
DbA	Dakota loam, loamy substratum, 0 to 2 percent slopes
DbB	Dakota loam, loamy substratum, 2 to 6 percent slopes
DcA	Dakota loam, rock substratum, 0 to 2 percent slopes
DcB2	Dakota loam, rock substratum, 2 to 6 percent slopes, eroded
DdA	Dakota sandy loam, 0 to 2 percent slopes
DdB	Dakota sandy loam, 2 to 6 percent slopes
DeA	Derinda silt loam, 0 to 2 percent slopes
DeB	Derinda silt loam, 2 to 6 percent slopes
DeB2	Derinda silt loam, 2 to 6 percent slopes, moderately eroded
DeC	Derinda silt loam, 6 to 12 percent slopes
DeC2	Derinda silt loam, 6 to 12 percent slopes, moderately eroded
DeD	Derinda silt loam, 12 to 20 percent slopes
DeD2	Derinda silt loam, 12 to 20 percent slopes, moderately eroded
DeE	Derinda silt loam, 20 to 30 percent slopes
DfC2	Derinda silt loam, acid variant, 6 to 12 percent slopes, moderately eroded
DfD2	Derinda silt loam, acid variant, 12 to 20 percent slopes, eroded
DkB2	Dickinson fine sandy loam, 2 to 6 percent slopes, moderately eroded
DoB	Downs silt loam, 2 to 6 percent slopes
DoB2	Downs silt loam, 2 to 6 percent slopes, moderately eroded
DoC2	Downs silt loam, 6 to 12 percent slopes, moderately eroded
DsA	Dubuque silt loam, 0 to 2 percent slopes
DsB	Dubuque silt loam, 2 to 6 percent slopes
DsB2	Dubuque silt loam, 2 to 6 percent slopes, moderately eroded
DsC	Dubuque silt loam, 6 to 12 percent slopes
DsC2	Dubuque silt loam, 6 to 12 percent slopes, moderately eroded
DsD	Dubuque silt loam, 12 to 20 percent slopes
DsD2	Dubuque silt loam, 12 to 20 percent slopes, moderately eroded
DsE	Dubuque silt loam, 20 to 30 percent slopes
DsE2	Dubuque silt loam, 20 to 30 percent slopes, moderately eroded
DsF	Dubuque silt loam, 30 to 40 percent slopes
DtB3	Dubuque soils, 2 to 6 percent slopes, severely eroded
DtC3	Dubuque soils, 6 to 12 percent slopes, severely eroded
DtD3	Dubuque soils, 12 to 20 percent slopes, severely eroded
DuB	Dunbarton silt loam, 2 to 6 percent slopes
DuB2	Dunbarton silt loam, 2 to 6 percent slopes, moderately eroded
DuC	Dunbarton silt loam, 6 to 12 percent slopes
DuC2	Dunbarton silt loam, 6 to 12 percent slopes, moderately eroded
DuD	Dunbarton silt loam, 12 to 20 percent slopes
DuD2	Dunbarton silt loam, 12 to 20 percent slopes, moderately eroded
DuE	Dunbarton silt loam, 20 to 30 percent slopes
DuE2	Dunbarton silt loam, 20 to 30 percent slopes, moderately eroded
DvC	Dunbarton complex, 6 to 12 percent slopes
DvC2	Dunbarton complex, 6 to 12 percent slopes, moderately eroded
DvD	Dunbarton complex, 12 to 20 percent slopes
DvD2	Dunbarton complex, 12 to 20 percent slopes, moderately eroded
DvE	Dunbarton complex, 20 to 30 percent slopes
DvE2	Dunbarton complex, 20 to 30 percent slopes, moderately eroded
EdC2	Edith soils, 6 to 12 percent slopes, eroded
EdD	Edith soils, 12 to 20 percent slopes
EdD2	Edith soils, 12 to 20 percent slopes, moderately eroded
EdE	Edith soils, 20 to 30 percent slopes
EwC2	Edith–Wykoff soils, 6 to 12 percent slopes, eroded
EwD2	Edith–Wykoff soils, 12 to 20 percent slopes, eroded
EwD3	Edith–Wykoff soils, 12 to 20 percent slopes, severely eroded
EwE	Edith–Wykoff soils, 20 to 30 percent slopes
FaA	Fayette silt loam, benches, 0 to 2 percent slopes
FaB	Fayette silt loam, benches, 2 to 6 percent slopes
FaC2	Fayette silt loam, benches, 6 to 12 percent slopes, moderately eroded
FlB	Floyd silt loam, 2 to 6 percent slopes
FnB2	Freeon silt loam, 2 to 6 percent slopes, moderately eroded
FnC2	Freeon silt loam, 6 to 12 percent slopes, moderately eroded
Fr	Freer silt loam
GaB	Gale silt loam, 2 to 6 percent slopes
GaB2	Gale silt loam, 2 to 6 percent slopes, moderately eroded
GaC2	Gale silt loam, 6 to 12 percent slopes, eroded
GaD2	Gale silt loam, 12 to 20 percent slopes, moderately eroded
GtC2	Gale silt loam, thin solum variant, 6 to 12 percent slopes, eroded
GtD	Gale silt loam, thin solum variant, 12 to 20 percent slopes
GtD2	Gale silt loam, thin solum variant, 12 to 20 percent slopes, moderately eroded
GtE	Gale silt loam, thin solum variant, 20 to 30 percent slopes
HaA	Halder loam, 0 to 2 percent slopes
HdA	Halder loam, sandy substratum, 0 to 3 percent slopes
HeB2	Hesch fine sandy loam, loamy substratum, 2 to 6 percent slopes, moderately eroded
HeC2	Hesch fine sandy loam, loamy substratum, 6 to 12 percent slopes, moderately eroded
HeD2	Hesch fine sandy loam, loamy substratum, 12 to 20 percent slopes, eroded
HlB	Hesch loam, loamy substratum, 2 to 6 percent slopes
HlB2	Hesch loam, loamy substratum, 2 to 6 percent slopes, moderately eroded
HlC2	Hesch loam, loamy substratum, 6 to 12 percent slopes, moderately eroded
HlD2	Hesch loam, loamy substratum, 12 to 20 percent slopes, moderately eroded
HmC2	Hixton fine sandy loam, 6 to 12 percent slopes, moderately eroded
HmD2	Hixton fine sandy loam, 12 to 20 percent slopes, moderately eroded
HnB	Hixton fine sandy loam, loamy substratum, 2 to 6 percent slopes
HnB2	Hixton fine sandy loam, loamy substratum, 2 to 6 percent slopes, moderately eroded
HnC	Hixton fine sandy loam, loamy substratum, 6 to 12 percent slopes
HnC2	Hixton fine sandy loam, loamy substratum, 6 to 12 percent slopes, moderately eroded
HnD	Hixton fine sandy loam, loamy substratum, 12 to 20 percent slopes
HnD2	Hixton fine sandy loam, loamy substratum, 12 to 20 percent slopes, moderately eroded
HnE	Hixton fine sandy loam, loamy substratum, 20 to 30 percent slopes
HtB	Hixton loam, loamy substratum, 2 to 6 percent slopes
HtC2	Hixton loam, loamy substratum, 6 to 12 percent slopes, moderately eroded
HtD2	Hixton loam, loamy substratum, 12 to 20 percent slopes, eroded
LaB2	Lamont very fine sandy loam, 2 to 6 percent slopes, moderately eroded
LaC2	Lamont very fine sandy loam, 6 to 12 percent slopes, moderately eroded
LaD2	Lamont very fine sandy loam, 12 to 20 percent slopes, moderately eroded
LcA	Lawler loam, 0 to 3 percent slopes
LwA	Lawler silt loam, 0 to 2 percent slopes
LwB	Lawler silt loam, 2 to 6 percent slopes
MdA	Meridian loam, 0 to 2 percent slopes
MdB	Meridian loam, 2 to 6 percent slopes

SYMBOL	NAME
OmA	Onamia loam, 0 to 2 percent slopes
OmB	Onamia loam, 2 to 6 percent slopes
OmB2	Onamia loam, 2 to 6 percent slopes, moderately eroded
OmC2	Onamia loam, 6 to 12 percent slopes, moderately eroded
OmD2	Onamia loam, 12 to 20 percent slopes, moderately eroded
OnB	Onamia sandy loam, 2 to 6 percent slopes
OnC2	Onamia sandy loam, 6 to 12 percent slopes, moderately eroded
Or	Orion silt loam
OsA	Ostrander silt loam, 0 to 2 percent slopes
OsB	Ostrander silt loam, 2 to 6 percent slopes
OsB2	Ostrander silt loam, 2 to 6 percent slopes, moderately eroded
OsC2	Ostrander silt loam, 6 to 12 percent slopes, moderately eroded
OtB	Otterholt silt loam, 2 to 6 percent slopes
OtB2	Otterholt silt loam, 2 to 6 percent slopes, moderately eroded
OtC	Otterholt silt loam, 6 to 12 percent slopes
OtC2	Otterholt silt loam, 6 to 12 percent slopes, moderately eroded
OtC3	Otterholt silt loam, 6 to 12 percent slopes, severely eroded
OtD2	Otterholt silt loam, 12 to 20 percent slopes, moderately eroded
PmA	Plainfield loamy sand, 0 to 2 percent slopes
PmB	Plainfield loamy sand, 2 to 6 percent slopes
PmB2	Plainfield loamy sand, 2 to 6 percent slopes, eroded
PmC	Plainfield loamy sand, 6 to 12 percent slopes
PmC2	Plainfield loamy sand, 6 to 12 percent slopes, eroded
PoA	Port Byron silt loam, 0 to 2 percent slopes
PoB	Port Byron silt loam, 2 to 6 percent slopes
PoC2	Port Byron silt loam, 6 to 12 percent slopes, moderately eroded
RaB	Racine silt loam, 2 to 6 percent slopes
RaB2	Racine silt loam, 2 to 6 percent slopes, moderately eroded
RaC2	Racine silt loam, 6 to 12 percent slopes, moderately eroded
ReA	Renova silt loam, 0 to 2 percent slopes
ReB	Renova silt loam, 2 to 6 percent slopes
ReB2	Renova silt loam, 2 to 6 percent slopes, moderately eroded
ReC	Renova silt loam, 6 to 12 percent slopes
ReC2	Renova silt loam, 6 to 12 percent slopes, moderately eroded
ReC3	Renova silt loam, 6 to 12 percent slopes, severely eroded
ReD	Renova silt loam, 12 to 20 percent slopes
ReD2	Renova silt loam, 12 to 20 percent slopes, moderately eroded
ReD3	Renova silt loam, 12 to 20 percent slopes, severely eroded
RfB2	Renova fine sandy loam, sandy variant, 2 to 6 percent slopes, eroded
RfC2	Renova fine sandy loam, sandy variant, 6 to 12 percent slopes, eroded
RfD2	Renova fine sandy loam, sandy variant, 12 to 20 percent slopes, eroded
Rh	Riverwash
RoB	Rockton complex, 2 to 6 percent slopes
RoC2	Rockton complex, 6 to 12 percent slopes, moderately eroded
RtA	Rozetta silt loam, benches, 0 to 2 percent slopes
RtB	Rozetta silt loam, benches, 2 to 6 percent slopes
So	Sable silt loam
SbB	Santiago silt loam, 2 to 6 percent slopes
SbB2	Santiago silt loam, 2 to 6 percent slopes, moderately eroded
SbC2	Santiago silt loam, 6 to 12 percent slopes, moderately eroded
SgA	Sargeant silt loam, 0 to 2 percent slopes
SgB	Sargeant silt loam, 2 to 6 percent slopes
SgB2	Sargeant silt loam, 2 to 6 percent slopes, moderately eroded
SgC	Sargeant silt loam, 6 to 12 percent slopes
SgC2	Sargeant silt loam, 6 to 12 percent slopes, moderately eroded
ShC	Schapville silt loam, 6 to 12 percent slopes
ShC2	Schapville silt loam, 6 to 12 percent slopes, moderately eroded
ShD2	Schapville silt loam, 12 to 20 percent slopes, moderately eroded
ShE2	Schapville silt loam, 20 to 30 percent slopes, eroded
SkB2	Schapville silt loam, wet subsoil variant, 2 to 6 percent slopes, eroded
SnB	Seaton silt loam, 2 to 6 percent slopes
SnB2	Seaton silt loam, 2 to 6 percent slopes, moderately eroded
SnC	Seaton silt loam, 6 to 12 percent slopes
SnC2	Seaton silt loam, 6 to 12 percent slopes, moderately eroded
SnC3	Seaton silt loam, 6 to 12 percent slopes, severely eroded
SnD	Seaton silt loam, 12 to 20 percent slopes
SnD2	Seaton silt loam, 12 to 20 percent slopes, moderately eroded
SnD3	Seaton silt loam, 12 to 20 percent slopes, severely eroded
SnE	Seaton silt loam, 20 to 30 percent slopes
SnE2	Seaton silt loam, 20 to 30 percent slopes, moderately eroded

SYMBOL	NAME
SoA	Sogn–Rockton looms, 0 to 2 percent slopes
SoB	Sogn–Rockton looms, 2 to 6 percent slopes
SoC2	Sogn–Rockton looms, 6 to 12 percent slopes, moderately eroded
SoD2	Sogn–Rockton looms, 12 to 20 percent slopes, moderately eroded
SpA	Sparta loamy sand, 0 to 2 percent slopes
SpB	Sparta loamy sand, 2 to 6 percent slopes
SpB2	Sparta loamy sand, 2 to 6 percent slopes, eroded
SpC2	Sparta loamy sand, 6 to 12 percent slopes, eroded
SrA	Spencer silt loam, 0 to 2 percent slopes
SrB	Spencer silt loam, 2 to 6 percent slopes
SrB2	Spencer silt loam, 2 to 6 percent slopes, moderately eroded
SrC2	Spencer silt loam, 6 to 12 percent slopes, moderately eroded
StF	Steep stony and rocky land
SuA	Stronghurst silt loam, benches, 0 to 2 percent slopes
TeA	Tell silt loam, 0 to 2 percent slopes
TeB2	Tell silt loam, 2 to 6 percent slopes, eroded
Tl	Terrace escarpments, loamy
Ts	Terrace escarpments, sandy
Tx	Terril loam
VaB	Viasaty silt loam, 2 to 6 percent slopes
VaB2	Viasaty silt loam, 2 to 6 percent slopes, moderately eroded
VaC	Viasaty silt loam, 6 to 12 percent slopes
VaC2	Viasaty silt loam, 6 to 12 percent slopes, moderately eroded
WaA	Waukegan silt loam, 0 to 2 percent slopes
WaB	Waukegan silt loam, 2 to 6 percent slopes
WhA	Whalan silt loam, 0 to 2 percent slopes
WhB	Whalan silt loam, 2 to 6 percent slopes
WhB2	Whalan silt loam, 2 to 6 percent slopes, moderately eroded
WhC	Whalan silt loam, 6 to 12 percent slopes
WhC2	Whalan silt loam, 6 to 12 percent slopes, moderately eroded
WhD	Whalan silt loam, 12 to 20 percent slopes
WhD2	Whalan silt loam, 12 to 20 percent slopes, moderately eroded
WhD3	Whalan silt loam, 12 to 20 percent slopes, severely eroded
WhE	Whalan silt loam, 20 to 30 percent slopes
WhE2	Whalan silt loam, 20 to 30 percent slopes, moderately eroded
Wn	Worthen silt loam
WoB	Wykoff loam, 2 to 6 percent slopes
WoB2	Wykoff loam, 2 to 6 percent slopes, moderately eroded
WoC	Wykoff loam, 6 to 12 percent slopes
WoC2	Wykoff loam, 6 to 12 percent slopes, moderately eroded
WoC3	Wykoff loam, 6 to 12 percent slopes, severely eroded
WoD	Wykoff loam, 12 to 20 percent slopes
WoD2	Wykoff loam, 12 to 20 percent slopes, moderately eroded
WoD3	Wykoff loam, 12 to 20 percent slopes, severely eroded
WsB	Wykoff silt loam, 2 to 6 percent slopes
WsB2	Wykoff silt loam, 2 to 6 percent slopes, moderately eroded
WsC2	Wykoff silt loam, 6 to 12 percent slopes, eroded

Soil map constructed 1966 by Cartographic Division, Soil Conservation Service, USDA, from 1958 aerial photographs. Controlled mosaic based on Wisconsin plane coordinate system, central zone, Lambert conformal conic projection, 1927 North American datum.

APPENDIX D

LIST OF FLORA
and
FOREST MANAGEMENT INFORMATION

Menomonie

April 29, 1975 1600

TO: A. R. Santala

FROM: Milo T. Tappon

SUBJECT: Preliminary Environmental Report - Kinnickinnic State Park, Pierce County

1. Original Forest Cover

This tract of land is within that portion of St. ~~Croix~~ Pierce County that was originally prairie although river bottoms were forested. It is reasonable to assume that this river gorge probably had a forested cover very similar to that which now exists.

2. Present Forest Cover

There are four distinct forest communities within the park boundary. The higher elevation on the north side of the property, with its flat to rolling topography, is of the prairie savanna type. The hillside bank along the St. Croix River north of the mouth of the Kinnickinnic is pure oak. Bottomland hardwoods, a river bottom type, is found along the stream in the valley bottom. The north facing slope is basically a white pine stand with a mixture of other hardwoods.

The prairie-oak savanna type consists of a scattered stand of black and white oaks with some aspen patches and a scattering of red cedar (juniper). On shallow soil areas near the cliff areas, the trees are very stunted, gnarled and picturesque.

The bottomland hardwoods are growing on a high water table sand. Species present are willow, red maple, black ash, elm and box elder. Benches 4 to 6 feet higher in elevation have cottonwood, aspens, black cherry, white ash, hackberry, butternut, some oaks and a few other miscellaneous species.

The oak stand on the river bank is mostly an immature stand of black oak. It is a very dense stand that fully occupies the site on which it is growing. Although the site is good, the stand could be more thrifty if there were fewer stems.

The north facing slope is forested with tall 12- to 18-inch diameter white pine. Other associated species are black oaks, white birch, bass wood, aspens, black cherry, white ash and some red maple. The site is poor for all the hardwoods and average for the pine. Many of the hardwoods are dead or dying with many signs of disease infections on the living trees. The white pines, too, are quite unthrifty, with many trees showing extensive excavating by pileated woodpeckers.

3. Land Classification

a. This area would not fit the designation of wilderness or wild area. It would, however, probably be suitable for a natural area.

b. The narrow, deeply cut gorge oriented east-west appears to have created a unique micro climate in an area that generally developed into typical prairie-oak savanna. This area, also being located in the transitional zone between the true northern forests and the central hardwood forests, created an additional unique set of biological circumstances. In addition, it is part of the immediate Mississippi drainage area, being subject to the conditions that created development of the bottomland hardwoods common along the shores of the major rivers. Within this very small area, then, are the conditions that favor the development of numerous biotic communities. The most evident example of this is the presence of ground hemlock (Taxus canadensis) under the white pine stand. Many species of plants present are on the very edge of their biological range.

c. The forested stands should be carefully studied and treated culturally to maintain the floral composition common to them. This applies to herbs, shrubs and trees equally. Fires, pasturing and winter use by deer may require restoration or maintenance plantings in areas and zones where overhead cover will soon be lacking due to natural mortality.

d. An in-depth study should be made of the area to inventory the existing plants and at the same time map their general location and relative abundance. Should fire or other catastrophe befall the area, there would be a basis for restoration.

4. Fire Control

a. While fire control from "wild fire" is certainly necessary, fire should also be used as a tool to maintain certain types of ground cover.

b. Mr. Nesvold is presenting plans for the control of wild fires.

5. Plantings

The intolerant species in the white pine type are beginning to pass out of the picture in favor of more tolerant hardwoods and shrub species. If the decision is made to attempt to maintain the present floral composition, limited plantings of trees will be needed to do so. Once these are established, it might be desirable to consider planting herbaceous plants to reinforce those present now. Occasional fires probably kept tolerant hardwoods from establishing themselves. With fire eliminated, natural conversion will constantly move the ecology toward the hard maple, birch, basswood climax type.

Historical, Archaeological and/or Unique Site Preservation

a. Devil's Mixing Bowl

The dry run creek bed that suddenly drops off 40+ feet should have some kind of barrier to prevent people from falling into it. Likewise, the sides should be well marked or have a fence erected. The lower creek bed side should have a barrier that would prevent people walking into the "Brol" to carve initials into the rocks, etc. Interpretation should be developed by a naturalist.

b. River Canyon

A self-guided trail with numbered stops would tend to keep visitors on the trail. Interpretation should be developed by a naturalist.

Milo T. Tappon

MTT:bjs

NOTED:

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Date

Preliminary Checklist of Vascular Plants from the
Kinnickinnic River Valley

Aceraceae
- Acer Negundo (Box Elder)
- A. platanoides (Norway Maple)
- A. saccharinum (Silver Maple)
- A. saccharum(Sugar Maple)
- A. spicatum (Mountain Maple)

Aizoaceae
- Mollugo verticillata (Carpetweed)
- Amarylidaceae (Hypoxis hirsuta)

Anacardiaceae
- Rhus plabra (Smooth Sumac)
- R. typhina (Staghorn Sumac)

Apocynaceae
- Apocynum androssemifolium (Dogbane)
- A. silbiricum (Dogbane)

Araceae
- Arisaema triphyllum (Jack-in-the-Pulpit)

Araliaceae
- Aralia nudicaulis (Wild Sarsaparilla)
- Panax quinquefolius (Ginseng)
- P. trifolius (Dwarf Ginseng)

Aristolochinaceas
- Asarum canadense (Wild Ginger)

Asclepiadaceae
- Asclepias exaltata (Tall milkweed)
- A. Ovalifolia (Oval-leafed Milkweed)
- A. suriaca (Common Milkweed)
- A. tuberosa (Butterflyweed)
- A. verticillata (Whorled-leafed Milkweed)

Balsaminaceae
- Impatiens biflora (Jewel weed)
- I. pallida (Pale Touch-me-Not)

Betulaceae
- Betula cordifolia
- B. papyrifera (White Birch)
- Carpinus Caroliniana (Blue Beech)
- Corylus americana (Hazelnut)
- Ostrya virginiana (Amer. Hop-Hornbeam)

Boraginaceae
- Hackelia virginiana (Begger's Lice)
- Lappula redowskii (Stickweed)
- Lithospermum canescens (Puccoon)
- L. caroliense (Puccoon)
- L. incisum (Puccoon)
- Mertensia virgianica (Lungwort)
- Onosmodium molle (Marble-seed, False Gromwell)

Campanulaceae
- Campanula americana (Tall Bluebell)
- C. rotundifolia (Harebell)
- Triodanus perfoliata (Venus' Looking Glass)

Capparidaceae
- Polanisia dodecandra (Clammyweed)

Caprifoliaceae
- Diervilla lonicera (Bush-Honeysuckle)
- Lonicera prolifera (Grape Honeysuckle)
- L. tatarica (Tartarian Honeysuckle)
- Sambucus canadensis (Common Elder)
- S. pubens (Red-berried Elder)
- Symphoricarpos occidentalis (Wolfberry)
- S. orbiculatus (Coralberry
- Triosteum perfoliatum (Horse-Gentian)
- Viburnum cassinoides (Wild-Raisin)
- V. lentago (Sweet Virburnum)

Caryophyllaceae
- Cerastium arvense (Field Chickweed)
- C. nutans (Nodding Chickweed)
- C. vulgatum (Common Mouse-eared Chickweed)
- Lynchnis alba (White Cockle)
- Myosoton aquaticum (Giant Chickweed)
- Saponaria officinalis (Soapwort, Bouncing Bet)
- Silene caerei (Campion)
- Stellaria aquatica (Chickweed)

Cistaceae
- Helianthemum bicknellii (Frostweed)

Commelinaceae
- Tradescantia bracteata (Spiderwort)
- T. occidentalis (Spiderwort)
- T. virginiana (Spiderwort)

Compositae
- Achillea millefolium (Yarrow)
- Actium minus (Burdock)
- Agoseris cuspidata (Prairie Dandelion)
- Antennaria neglecta (Pussytoes)
- A. plantaginifolia (Pussytoes)
- Anthemis arvensis (Mayweed)
- A. cotula (Mayweed)

- Artemisia compestris
- A. ludoviciana (Western Mugwort)
- Aster azureus
- Aster Novae-anglias (New England Aster)
- A. sagittifolius
- A. simplex
- Bidens cernua (Beggers Tick)
- Carduus nutans (Musk Thistle)
- Chrysanthemum leucanthemum (Daisy)
- Chrysopsis villosa (Golden Aster)
- Cirsium arvense (Canada Thistle)
- Conyza canadensis (Horseweed)
- Crepis tectorum (Hawk's Beard)
- Erigeron annus (Daisy-Fleabane)
- E. Philadelphicus (Fleabane)
- E. pulchellus (Robin's Plantain)
- E. strigosus (White-Top)
- Eupatorium maculatum (Joe-Pye Weed)
- E. perfoliatum (Thoroughwort)
- Gnapalium obtusifolium (Catfoot)
- Helenium autumnale (Sneezeweed)
- Helianthus autumnale (Sunflower)
- H. hirsutus (Sunflower)
- H. occidentalis (Sunflower)
- Hypochaeris radicata (Cat's Ear)

Krigia biflora (Dwarf Dandelion)
Prenanthes alba (Rattlesnake-root)
Ratibida pinnata (Coneflower)
Rudbeckia hirta (Black-eyed Susan)
Senecio glabellus (Butterweed)
S. pauperculus (Ragwort)
S. plattensis (Ragwort)
Silphium perfoliatum (Cup-Plant, Rosinweed)
Solidago canadensis
S. flexicaulis (Goldenrod)
S. gigantea (Giant goldenrod)
S. graminifolia (Grass-leaved Goldenrod)
S. hispida
S. missouriensis
S. nemoralis
S. rigida
Sonchus asper (Sow Thistle)
Taraxicum officinale (Dandelion)
Tragopogon pratensis (Goat's Beard)

Convolvulaceae
Convolvulus sepium (Bindweed)

Cornaceae
Cornus alternifolia (Green Osier, Alternate-Leaved Dogwood)
C. racemosa (Dogwood)
C. stolonifera (Red Osier Dogwood)

Cruciferae
Arabis divaricarpa (Rock Cress)
A. lyrata (Rock Cress)
Barbarea vulgaris (Yellow Rochet)
Barteroa incana (Hoary Alyssum)
Capsella bursa-pastoris (Shepherd's Purse)
Cardamine pensylvanica (Bitter Cress)
Dentaria laciniata (Toothwort)
Erysimum cheiranthoides (Wormseed Mustard)
Hesperis matronalis (Dame's Violet)
Nasturtium officinale (Watercress)
Rorippa obtusa (Yellow Cress)

Cupressaceae
Juniperus communis (Common Juniper)
J. virginiana (Red Cedar)

Cyperaceae
Carex aenea
C. annectens
C. cephalophorn
C. communis
C. eleocharis
C. exilis
C. laxiflora
C. lurida
C. meadii
C. normalis
C. plantaginea
C. sartwellii
C. saximontana
C. saximontans
C. stipata
C. umbellata
C. vulpinoidea
Cyperus diandrus (Galingale)
C. filiculmis (Galingale)
C. schweinitzii (Galingale)
C. strigosus (Galingale)
Eleocharis palustria (Spike-Rush)
Scirpus americanus (Sword grass)
S. atrovirens (Bulrush)

No common name for this group other than Sedge

S. cyperinus (Woolgrass)
S. validus (Giant Bulrush)

Dioscoreaceae
Dioscorea villosa (Wild Yam)

Elaeagnaceae
Elaeagnus angustifolia (Russian Olive)

Equisetaceae
Equisetum hyemale (Scouring-Rush, Horsetail)
E. pratense (Meadow Horsetail)

Euphorbiaceae
Euphorbia corollata (Flowering Spurge)
E. cyparissias (Cypress Spurge)
E. esula (Leafy Spurge)
E. glyptosperma (Spurge)
E. nutans (Eyebane)
E. supina (Milk Purslane)

Fabaceae
Amorpha canescens (Prairie Lead Plant)
Astragalus crassicarpus (Ground-Plum)
Melilotus alba (White Sweet Clover)
Petalostemum candidum (White Prairie Clover)
P. purpureum (Purple Prairie Clover)
Petalostemum villosum (Foster's Hill)
Vicia cracca (Tufted Vetch)
V. villosa (Hairy Vetch)

Fagaceae
Quercus alba (White Oak)
Q. borcalis (Red Oak)
Q. macrocarpa (Bur Oak)
Q. velutina (Black Oak)

Fumariaceae
Dicentra cucullaria (Dutchman's Breeches)

Gentianaceae
Gentiana puberula (Foster's Hill)

Geraniaceae
Geranium maculatum (Cranesbill)

Gramineae
Agropyron repens (Quackgrass)
Agrostis palustria (Creeping-Bentgrass)
Boutelova curtipendula (Side-Oats Grama)
Elymus mollis (Wild Rye)
Eragrostis pectinacea (Love-Grass)
E. spectabilis (Tumble-Grass, Petticoat-Climber)
Festuca octiflora (Forester's Hill)
Glyceria grandis (Reed-Meadow Grass)
G. striata (Fowl-Meadow Grass)
Panicum depauperatum (Panic Grass)
Phalaris arundinacea (Canary Grass)
Poa pratensis (Blue-grass)
P. compressa (Flat Stem Blue Grass)

Hydrophyllaceae
Ellisia nyctelea (no common name)
Hydrophyllum appendiculatum (Virginia Waterleaf)
H. macroohyllum (Waterleaf)
H. virginianum (John's-Cabbage)

Hypericaceae
- Hypercum perforatum (St. John's Wort)
- H. punctatum (Spotted St. John's Wort)

Iridaceae
- Sisyrinchium campestre (Blue-eyed Grass)
- S. mucronatum (Blue-eyed Grass)

Juglandaceae
- Juglans nigra (Black Walnut)

Juncaceae
- Juncus balticus
- J. compressus
- J. effusus — All Spikerush
- J. longistulis
- J. secundus

Labiatae
- Galeopsis tetrahit (Hemp-Nettle)
- Glecoma hederacea (Creeping Charlie)
- Hedeoma hispida (Mock Pennyroll)
- Leonurus cardiaca (Motherwort)
- Lycopus americanus (Bugleweed)
- L. virginicus (Bugleweed)
- L. officinalis (Water-Horehound)
- Monarda fistulosa (Wild Bergamot, Horsemint)
- Nepeta cataria (Catnip)
- Prunella vulgaris (Selfheal)
- Scutellaria galericulata (Skullcap)
- S. lateriflora (Skullcap)
- S. parvula (Skullcap)
- Teucrium canadense (American Germander)
- Mentha arvensis (Wild Mint)

Liliaceae
- Allium cernuum (Wild Onion)
- Asparagus officinalis (Garden Asparagus)
- Erythronium albidum (White Dog's Tooth Violet)
- Hemerocallis fulva (Common Orange Day Lily)
- Lilium superbum (Turk's-Cap-Lily)
- Maianthemum canadense (Wild Lily-of-the-Valley)
- Polygonatum biflorum (Solomon's Seal)
- Smilacina stellata (False Solomon's Seal)
- Smilax herbacea (Carrion-Flower)
- Trillium grandiflorum (Trillium)
- Uvularia grandiflora (Bellwort)

Lobeliaceae
- Lobelia siphilitica (Blue Cardinal Flower)
- L. spicata (Highbelia, Pale-Spike Lobelia)
- L. spicata hirtella (Highbelia)

Najadacea
- Zannichellia palustris (Umbrella-Wort)

Nyctaginaceae
- Oxybaphus hirsutus (Umbrella-Wort)

Oleaceae
- Fraxinus americana (White Ash)
- F. nigra (Black Ash)
- F. pennsylvanica (Red Ash)

Onagraceae
- Circaea canadensis (Enchanter's Nightshade)
- C. quadrisulata (Enchanter's Nightshade)
- Epilobium ciliatum (Willow Herb)
- E. paniculatum (Willow Herb)
- Oenothera biennis (Evening Primrose)
- O. rhombipetula (Evening Primrose)

Ophioglossaceae
- Botrychium virginianum (Rattlesnake Fern)

Orchidaceae
- Corallorizh trifida (Pale Coral-root)

Osmundaceae
- Osmunda claytoniana (Interrupted Fern)

Oxalidaceae
- Oxalis stricta (Wood Sorrel)
- O. violacea (Violet Wood Sorrel)

Papaveraceae
- Sanguinaria canadensis (Blood-Root)

Phrymaceae
- Phryma leptostachya (Lopseed)

Pinaceae
- Pinus strobus (White Pine)
- Tsuga mertensiana (Ground Hemlock)

Plantaginaceae
- Plantago major (Plantain)
- P. rugelii (Wood Plantain)

Polemoniaceae
- Phlox divaricata (Phlox)
- P. pilosa (Phlox)
- P. sublata (Moss Pink)
- Polemonium reptans (Jacob's Ladder)

Polygonaceae
- Polygonum aviculare (Knotweed)
- P. convolvus (Black Bindweed)
- P. coccineum (Scarlet Smartweed)
- P. lapathifolium
- P. pensylvanicum (Pinkweed)
- P. punctatum (Water Smartweed)
- P. scandens (Climbing False Buckwheat)
- Rumex acetosella (Sheep Sorrel)
- R. altissimus (Pale Dock)
- R. crispus (Yellow Dock)

Polypodiaceas
- Adiantum pedatum (Maiden Hair Fern)
- Athyrium michauxii (Lady Fern)
- Cystopteris bulbifera
- C. fragilis (Bladder Fern)
- Dryopteria austriaca spinulosa (Wood Fern)

Portulacaceae
- Claytonia virginiana (Spring Beauty)
- Talinum rugospermum (Fame Flower)

Primulaceae
- Lysimachia ciliata (Loosestrife)
- L. nummularia (Honeywort)

Pyrolaceae
- Pyrola rotundifolia (Wild Lily-of-the-Valley)

Ranunculaceae
- Actea rubra (Baneberry)
- Anemone canadensis (Canadian Anemone)
- A. carolina (Carolina Anemone)
- A. cylindrica (Thimbleweed)
- A. patens (Pasque Flower)
- A. quinquifolia (Wood Anemone)
- A. virginiana (Thimbleweed)
- Anemonella thalictroides (Rue Anemone)
- Aquilegia canadensis (Columbine)
- Caltha palustris (Marsh Marigold)
- Delphinium carolinianum (Larkspur)
- D. virescens (Larkspur)
- Hepatica acutiloba (Liverleaf)
- H. americana (Liverleaf)

Ranunculus acris (Tall Buttercup)
R. aquatilis (Kidneyleaf Buttercup)
R. carolinianus
R. fasicularis (Early Crowfoot)
R. flabellaris (Yellow Water-Crowfoot)
R. pensylvanicus (Bristly Crowfoot)
R. rhomboideus (Prairie Buttercup)
R. septentrionalis (Swamp Buttercup)
Thalictrum dasycarpum (Purple Meadow Rue)
T. dioicum (Early Meadow Rue)

Rhamnaceae
Ceanothus americanus (New Jersey Tea)

Rosaceae
Agrimonia pubescens (Cocklebur)
A. striata (Cocklebur)
Amelancher arborea (Juneberry)
A. humilis (Juneberry)
A. huronensis (Serviceberry)
A. sanguinea (Juneberry)
Crataegus mollis (Cranberry)
Fragaria vesca (Wild Strawberry)
F. virginiana (Wild Strawberry)
Geum canadense (Avens)
G. laciniatum (Avens)
G. triflorum (Three-flowered Avens)
Physocarpus opulifolius (Ninebark)
Potentilla argentea (Silvery Cinquefoil)
P. arguta (Tall Cinquefoil)
P. norvegica (Cinquefoil)
P. recta (Upright Cinquefoil)
P. simplex (Old-field Cinquefoil)
Prunus americana (Wild Plum)
P. nigra (Canada Plum)
P. serotina (Black Cherry)
P. virginianum (Chokecherry)
Rosa aciculars (Wild Rose)
R. blanda (Wild Rose)
R. suffulta (Wild Rose)
Rubus idaesus (Raspberry)
R. occidentalis (Black Raspberry)
R. strigosus (Raspberry)

Rubiaceae
Galium boreale (Bedstraw)
G. obtusum (Bedstraw)
G. palustre (Bedstraw)
G. trifidum (Bedstraw)
Houstonia longifolia (Bluet)

Rutaceae
Zanthoxylum americanum (Prickly Ash)

Salicaceae
Populus deltoides (Cottonwood)
P. tremuloides (Quaking Aspen)
Salix discolor (Large Pussy Willow)
S. humilis (Small Pussy Willow)
S. interior (Sandbar Willow)
S. lucida (Shining Willow)
S. nigra (Black Willow)
S. petiolaris

Santalaceae
Comandra umbellata (Bastard Toadflax)

Saxifragaceae
Heuchera hirsuticaulis (Alumroot)
H. richardsonii (Alumroot)
Hydrangea arborescens (Wild Hydrangea)
Mitella diphylla (Bishop's Cap)
Ribes americanum (Wild Black Currant)
R. grossularia
R. hirtellum (Smooth Gooseberry)
R. missouriense (Missouri Gooseberry)
R. nigrum (Black Currant)
R. odoratum (Clove Currant)

Scrophulariaceae
Besseya bullii
Chelone glabra (Turtlehead)
Linaria vulgaris (Butter & Eggs)
Mimulus glabratus (Monkey-Flower)
M. ringens (Monkey-Flower)
Penstemon gracilis (Slender-leaved Beard-Tongue)
P. grandiflorus (Large Flowered Beard-Tongue)
Scrophularia lanceolata (Figwort)
Verbascum thapsus (Mullein)
Veronica americana (Speedwell)
V. virginicaum (Speedwell)
Veronicastrum virginicum (Culver's Root)

Selaginellaceae
Selaginella rupestris

Solanaceae
Physalis grandiflora (Ground-Cherry)
P. heterophylla (Ground-Cherry)
P. longifolia (Ground-Cherry)
P. virginiana (Ground-Cherry)

Thymelaceae
Dirca palustris (Leatherwood)

Tiliaceae
Tilia americana (Basswood)

Ulmaceae
Ulmus rubra (Slippery Elm)
Ulmus americana (American Elm)

Umbelliferae
Angelica atropurpurea (Alexander)
Cryptotaenia canadensis (Wild Chervil)
Heracleum lanatum (Cow-Parsnip)
Osmorhiza claytoni (Sweet Cicely)
O. longestylis (Anise-Root)
Pastinaca sativa (Wild Parsnip)
Sanicula marilandica (Black Snakeroot)
Zizea aurea (Golden Alexander)

Urticaceae
Boehmeria cylindrica (Flase Nettle)
Laportea canadensis (Wood Nettle)

Verbenaceae
Verbena bracteata (Vervain)
V. hastata (Blue Vervain)
V. simplex (Vervain)
V. stricta (Hoary Vervain)
V. urticifolia (White Vervain)

Violaceae
Viola canadesis (Canada Violet)
V. hastata (Halbard-leaved Yellow Violet)
V. incognita (Sweet White Violet)
V. nephrophylla (None given)

V. papilionacea
V. pedata (Penny Violet)
V. pedatifida
V. renifolia
V. sororia (Hairy Blue Violet)

Vitaceae
Vitis riparia (Winter-Grape)

APPENDIX E

LIST OF WILDLIFE
and
GAME MANAGEMENT INFORMATION

KINNICKINNIC STATE PARK

Preliminary Environmental Report
Wildlife Management Section

A. Wildlife Species known to be present and/or assumed to be present.

Fauna - A total of 36 species of mammals and 140 species of birds are known or thought to inhabit the project area.

Mammals - Observations on the project area indicate that eight species are abundant, eight species are common, three species are uncommon and seventeen were not actually observed but believed present. Many of these unobserved species were reported in the Kinnickinnic Valley east of the project, according to the Lower Kinnickinnic River Valley Development Plan (McCool & Beaver, 1972).

Birds - McCool & Beaver (1972, p. 12) discussed the bird life of the lower Kinnickinnic Valley in this manner. "The valley has a rich variety of bird life. While as many as 85-90 species may be observed on any one day during the migrating period in May, over 140 have been identified as nesting in the river valley during the season. This latter number represents approximately 50% of Wisconsin nesting bird species."

The wildlife species are listed on the following tables 1 through 4.

Table I

Mammals Observed or Believed Present in Kinnickinnic State Park

Mammals	Relative Abundance[1]	Mammals	Relative Abundance[1]
Deer	A	Silver-haired Bat	N/O
Cottontail Rabbit	A	Southern Flying Squirrel	N/O
Gray Squirrel	A	Fox Squirrel	N/O
Woodchuck	A	Prairie Deer Mouse	N/O
Chipmunk	A	Pennsylvania Meadow Mouse	N/O
Red Squirrel	A	Prairie Vole	N/O
Racoon	A	Woodland Jumping Mouse	N/O
Short-tailed Shrew	A	Gray Fox	N/O
Red Fox	C	Otter	N/O
Mink	C	Meadow Vole	N/O
Striped Skunk	C	Long-tailed Shrew	N/O
Thirteen-lined Ground Squirrel	C	Norway Rat	N/O
Pocket Gopher	C	House Mouse	N/O
Northern White-footed Mouse	C	Starnosed Mole	N/O
Short-tailed Weasel	C	Prairie Mole	N/O
Long-tailed Weasel	C	Muskrat	UC
Red Bat	N/O	Beaver	UC
Little Brown Bat	N/O	Badger	UC

[1]Relative abundance adapted from Wisconsin Society of Ornithologists criteria.

(A) ABUNDANT - Species that stand out as being conspicuously most numerous in preferred habitat and being most conspicuously present in many types of habitat.

(C) COMMON - Species of each family that appear most numerous in their preferred habitat.

(N/O) Animal not actually observed but believed present based on project area habitat conditions and previously published ranges of occurrence.

(UC) UNCOMMON - The least common species of each family that occur occasionally in some numbers.

(EN) ENDANGERED - In danger of being extirpated from the State.

(TH) THREATENED - In danger of becoming endangered.

Table 2

Birds Observed in DNR Field Surveys of Kinnickinnic State Park

Birds	Relative Abundance[1]	Birds	Relative Abundance[1]
Crow	A	Barred Owl	UC
Blue Jay	A	Great Horned Owl	UC
Mallard	A	White-throated Sparrow	UC
White-breasted Nuthatch	A	Bald Eagle (EN)	UC
Song Sparrow	A	Pheasant	UC
Yellow-shafted Flicker	A	Rock Dove	UC
Cardinal	A	Cedar Waxwing	UC
Black-capped Chickadee	A	Snow Goose	UC
Catbird	A	Giant Canada Goose	UC
Red-eyed vireo	A	Wigeon	UC
Meadowlark	A	Black Duck	UC
Eastern Phoebe	C	Wood Duck	UC
Robin	C	Lesser Scaup	UC
House Wren	C	Common Merganser	UC
Ruffed Grouse	C	Goldeneye	UC
Slate-colored Junco	C	Cooper's Hawk (TH)	UC
Red-tailed Hawk	C	Eastern Bluebird	UC
Broadwinged Hawk	C	Kestrel	UC
Tree Sparrow	C	Northern Shrike	UC
Hairy Woodpecker	C	Starling	C
Red-bellied Woodpecker	C	Purple Grackle	C
Downy Woodpecker	C	Belted Kingfisher	C
Horned Lark	C	Brown-headed Cowbird	C
Fox Sparrow	C		

Table 3

Breeding Birds of the Lower Kinnickinnic Valley
from Goddard (1970-1971)

Birds	Relative Abundance[1]	Birds	Relative Abundance[1]
Great Blue Heron	N/O	White-breasted Nuthatch	N/O
Green Heron	N/O	House Wren	N/O
Mallard	N/O	Catbird	N/O
Wood Duck	N/O	Brown Thrasher	N/O
Red-tailed Hawk	N/O	Robin	N/O
Cooper's Hawk (TH)	N/O	Eastern Bluebird	N/O
Ruffed Grouse	N/O	Wood Thrush	N/O
Killdeer	N/O	Glue-gray Gnatcatcher	N/O
Spotted Sandpiper	N/O	Cedar Waxwing	N/O
Mourning Dove	N/O	Starling	N/O
Yellow-billed Cuckoo	N/O	Yellow-throated Vireo	N/O
Black-billed Cuckoo	N/O	Red-eyed Vireo	N/O
Woodcock	N/O	Warbling Vireo	N/O
Great Horned Owl	N/O	Yellow Warbler	N/O
Whip-poor-will	N/O	Yellowthroat Warbler	N/O
Chimney Swift	N/O	Ovenbird	N/O
Ruby-throated Hummingbird	N/O	Northern Waterthrush	N/O
Belted Kingfisher	N/O	American Redstart	N/O
Yellow-shafted Flicker	N/O	Bobolink	N/O
Pileated Woodpecker	N/O	Western Meadowlark	N/O
Red-bellied Woodpecker	N/O	Red-winged Blackbird	N/O
Hairy Woodpecker	N/O	Baltimore Oriole	N/O
Red-headed Woodpecker	N/O	Louisiana Waterthrush	N/O
Yellow-bellied Sapsucker	N/O	American Bittern	N/O
Downy Woodpecker	N/O	Brown-headed Cowbird	N/O
Eastern Kingbird	N/O	Bronzed Grackle	N/O
Crested Flycatcher	N/O	Scarlet Tanager	N/O
Eastern Phoebe	N/O	Cardinal	N/O
Alder Flycatcher	N/O	Rose-breasted Grosbeak	N/O
Least Flycatcher	N/O	Indigo Bunting	N/O
Eastern Wood Pewee	N/O	Dickcissel	N/O
Tree Swallow	N/O	American Goldfinch	N/O
Rough-winged Swallow	N/O	Fufous-sided Towhee	N/O
Barn Swallow	N/O	Savannah Sparrow	N/O
Bank Swallow	N/O	Grasshopper Sparrow	N/O
Bluejay	N/O	Vesper Sparrow	N/O
Purple Martin	N/O	Song Sparrow	N/O
Crow	N/O	Chipping Sparrow	N/O
Black-capped Chickadee	N/O	Field Sparrow	N/O

Table 4

Birds of Glen Park and Lower Kinnickinnic River Valley
Observed by Students and Faculty U. W. - River Falls (1966-1972)

Common Loon
Pied-billed Grebe
Great Blue Heron
Green Heron
Common (American) Egret (TH)
American Bittern
Whistling Swan
Canadian Goose
Blue Goose
Mallard
Gadwall
Pintail
Green-wing Teal
Blue-wing Teal
American Widgeon (Baldpate)
Shoveler
Wood Duck
Ring-necked Duck
Greater Scaup
Lesser Scaup
Common (American) Goldeneye
Bufflehead
Hooded Merganser
Common (American) Merganser
Red-breasted Merganser
Redhead
Turkey Vulture
Sharp-shinned Hawk
Cooper's Hawk (TH)
Red-tailed Hawk
Red-shouldered Hawk (TH)
Broad-winged Hawk
Swainson's Hawk
Rough-legged Hawk
Bald Eagle (EN)
Marsh Hawk
Osprey(EN)
Pigeon Hawk
Sparrow Hawk
Ruffed Grouse
Ring-necked Pheasant
Sora Rail
Coot
Killdeer
Common (Wilson's) Snipe
Woodcock
Ring-billed Gull
Herring Gull
Rock Dove
Mourning Dove
Yellow-billed Cuckoo
Black-billed Cuckoo
Great Horned Owl
Barred Owl
Nighthawk
Whip-poor-will
Chimney Swift
Ruby-throated Hummingbird
Belted Kingfisher
Flicker
Pileated Woodpecker
Red-bellied Woodpecker
Red-headed Woodpecker
Yellow-bellied Sapsucker
Hairy Woodpecker
Downy Woodpecker
Eastern Kingbird
Crested Flycatcher
Eastern Phoebe
Yellow-bellied Flycatcher
Alder Flycatcher
Least Flycatcher
Eastern Wood Pewee
Tree Swallow
Bank Swallow
Rough-winged Swallow
Barn Swallow
Cliff Swallow
Purple Martin
Blue Jay
Crow
Black-capped Chickadee
Tufted Titmouse
White-breasted Nuthatch
Red-breasted Nuthatch
Brown Creeper
House Wren
Winter Wren
Catbird
Brown Thrasher
Robin
Wood Thrush
Hermit Thrush
Swainson's (Olive-backed) Thrush

Spotted Sandpiper
Solitary Sandpiper
Greater Yellowlegs
Lesser Yellowlegs
Stilt Sandpiper
Pectoral Sandpiper
Gray-cheeked Thrush
Veery Bluebird
Northern Shrike
Blue-gray Gnatcatcher
Golden-crowned Kinglet
Ruby-crowned Kinglet
Water Pipit
Cedar Waxwing
Starling
Yellow-throated Vireo
Solitary Vireo
Red-eyed Vireo
Philadelphia Vireo
Warbling Vireo
Black-&-White Warbler
Tennessee Warbler
Orange-crowned Warbler
Nashville Warbler
Yellow Warbler
Magnolia Warbler
Myrtle Warbler
Black-throated Green Warbler
Blackburnian Warbler
Chestnut-sided Warbler
Bay-breasted Warbler
Black-poll Warbler
Palm Warbler
Ovenbird
Northern Waterthrush (Grinell's)
Connecticut Warbler
Yellow-throat
Wilson's Warbler

American Redstart
House (English) Sparrow
Bobolink
Eastern Meadowlark
Western Meadowlark
Red-winged Blackbird
Baltimore Oriole
Common Grackle
Brown-headed Cowbird
Scarlet Tanager
Cardinal
Rose-breasted Grosbeak
Indigo Bunting
Dickcissel
Evening Grosbeak
Purple Finch
Pine Siskin
Goldfinch
Rufous-sided Towhee
Savannah Sparrow
Grasshopper Sparrow
Vesper Sparrow
Slate-colored Junco
Tree Sparrow
Chipping Sparrow
Clay-colored Sparrow
Field Sparrow
Harris' Sparrow
White-crowned Sparrow
White-throated Sparrow
Fox Sparrow
Swamp Sparrow
Song Sparrow
Lark Sparrow
Snow Bunting

B. List of fauna affected by the proposed action.

The project will favor some species and be detrimental to others. Species which readily adapt to human proximity should increase in numbers. These would include the animals typically associated with parks, such as squirrels and chipmunks.

A certain amount of habitat destruction is inevitable in the construction of roads, parking areas and other facilities. Species which inhabit the area of lost habitat, and the predator species which used the prey species, should decrease in numbers. In addition, some species are shy and do not adapt to humans; these species also will decrease on the area.

Typically, park areas are allowed to continue through the plant succession to climax communities. Animal species using pioneer or intolerant habitat will decrease in numbers if this succession occurs.

Most migratory birds will be passing through during the spring and fall when few people are using the park. These birds should find conditions similar to those prior to park development.

In table 5 are listed the species which will increase, decrease or be unaffected by park development. This list is based upon the minimal development now planned.

Table 5

Effect of Park Development on Wildlife Species

Mammals

Increasers	Decreasers	Neutral
Fox Squirrel	White-tailed Deer	Muskrat
Gray Squirrel	White-footed Mouse	Flying Squirrel
Chipmunk	Woodland Jumping Mouse	Bat
Red Squirrel	Cottontail Rabbit	
Racoon	Mink	
Thirteen-lined Ground Squirrel	Beaver	
	Shrew	
	Badger	
	Field Mouse	
	Prairie Vole	
	Pocket Gopher	
	Skunk	
	Woodchuck	
	Weasel	
	Red Fox	

Birds

Increasers	Decreasers	Neutral
Crow	Barred Owl	Eastern Bluebird
Blue Jay	Ruffed Grouse	Nuthatch
Mallard	Goldeneye	Meadowlark
Black Duck	Giant Canada Goose	Song Sparrow
Rock Dove	Wigeon	Eastern Phoebe
Robin	Snow Goose	Wren
Grackle	Wood Duck	Slate-colored Junco
Downy Woodpecker	Red-tailed Hawk	Horned Lark
Starling	Broad-winged Hawk	Fox Sparrow
Cowbird	Pheasant	Black-capped Chickadee
Red-bellied Woodpecker	Cooper's Hawk (TH)	Lesser Scaup
Yellow-shafted Flicker	Bald Eagle (EN)	Cardinal
Hairy Woodpecker	Kestrel	Merganser
	White-throated Sparrow	Goldeneye
	Northern Shrike	Cedar Waxwing
	Great-horned Owl	Mourning Dove
	Downy Woodpecker?	Tree Sparrow
	Catbird	Red-wing Blackbird
	Red-eyed Vireo	
	Belted Kingfisher	

C. List fauna targeted for management.

1. White-tailed deer.

2. All ground and low nesting song birds.

3. Surface feeding ducks.

4. Other Mammals - All locally found mammals, but especially rabbits, squirrels, woodchucks, etc. that are most compatible to human disturbance.

   Other Birds - Eagles and hawks on protected list.

D. Surveys Conducted.

Surveys of the wildlife of the Lower Kinnickinnic River Valley have been conducted by students and faculty of the Biology Department, University of Wisconsin-River Falls, since 1966. Wisconsin Department of Natural Resources wildlife managers also ran transects through different habitat types in the project area on the following days:

December 23, 24, 30 and 31, 1974
March 6, 1975
April 22, 1975

E. Need for Special Management.

1. White-tailed deer - The entire park area is considered deer range with the exception of the sheerist cliffs. Winters are generally not severe in this area. Food is available on adjacent farms, and production is good. Much of the park is presently in juniper, a species used by wintering deer both for food and for cover. This species should be maintained where it is now present.

   The area holds good numbers of deer and traditionally has been open to hunting. A major management need is for an annual harvest of deer, with as much as possible of the park open to hunting.

2. Waterfowl - A large number of waterfowl species use the Kinnickinnic River and adjacent St. Croix River during their migrations. Access to the areas used should be limited during peak use periods. The valley is also a wintering area for waterfowl, especially mallard ducks. Mallards have a tendency to grow tame and accept food from humans. This loss of wildness is aesthetically unappealing. Populations that are hand fed can continue to grow to the point of becoming a nuisance. The best way to combat these problems is to open the park to waterfowl hunting. If this action is impossible, access to wintering areas should be limited to keep people from attempting to feed the ducks. The proposed foot-bridge across the Kinnickinnic River is adjacent to a main wintering area; it should be moved to another location. The waterfowl can be observed from scenic overlooks without influencing their wildness.

Trails should be located away from waterfowl concentrations.

I question an open season

3. Songbirds - The number of species using old fields and woods edge and other early successional types is greater than those who use mature climax forest. An effort should be made to maintain these preferred types through the use of several management techniques (fire, clear cutting, selective cutting). Plantings for buffer strips or aesthetic purposes should utilize shrub species which are known to be beneficial to songbirds (gray or silky dogwood, ninebark, wayfaring tree, hazel).

4. Rattlesnakes - Timber rattlesnakes are present in the park and should be maintained as an integral part of the ecosystem. Management needs for these species are complete protection and education of the public.

F. Furbearers and Management.

Mink, muskrat, beaver and probably otter are found in or adjacent to the Kinnickinnic River. None are found in great numbers and trapping is not anticipated with one exception. Beaver are being trapped near the mouth of the river at the present time. This may continue for a short time - until human pressures become intolerant after development. Management possibilities are low unless the river ecology is undisturbed. Then, downed trees, snags in the channel, riverside willow and undercut banks would be habitat for these mammals.

G. Rare, Endangered and ~~Changing Status~~ THREATENED Species and Management.

The mouth of the Kinnickinnic River is used as a winter feeding area by bald eagles and osprey, both on the Wisconsin endangered species list. These birds should be protected from human harassment by routing trails away from favorite roosting sites. The red-shouldered hawk is classified as a ~~changing status~~ THREATENED species. It occupies the specialized habitat of river bottom woods and has been observed in the Kinnickinnic Valley. Maintenance of the river bottom woods is necessary for this species. ~~The six-lined race-runner, a reptile, is also on the changing status list. This species is locally common on sandy areas along the Mississippi River and occasionally found on rocky outcrops and bluffs. It is possible that they are present in the park, although they have not been observed. Education of the using public should prevent visitors from collecting them for pets.~~

H. Special Wildlife Regulations Needed.

The park is inhabited by huntable populations of deer, grouse, squirrels, rabbits and waterfowl. Wildlife management's recommendation is for regular seasons on all game species throughout as much of the park as possible. Closed areas should be imposed only for safety reasons.

Existing laws covering game and other wildlife species will adequately protect these animals. No special legislation is anticipated.

I. Wildlife Habitat Preservation and Development.

The area of Kinnickinnic State Park is presently very good wildlife habitat. It contains a large amount of "edge" between fields and forest,

which provides food and shelter for many species of wildlife. Much of the park is in early successional stages which are beneficial to many birds and mammals. Park visitors enjoy seeing a variety of wildlife so it would be self-defeating to simply let succession take its course until the entire area is in a climax forest which supports few species of animals.

The following practices will help insure a varied and abundant fauna:

(1) All areas of the park which now are in agricultural production hold the potential of providing habitat for prairie and field animals. These areas should be planted to prairie plant species and maintained as prairie through the use of controlled burning or possibly mowing. Benefits of the prairie planting include reduced erosion, nesting cover for pheasants and ground nesting songbirds and historical and biological interest to the public and scientific community.

(2) Forest management practices that are essential to good timber management are also useful in keeping part of the forest in early successional stages. Practices that may be used would include clear cutting of small blocks, selective cutting, or controlled burning. The varied habitat caused by having different growth stages of forest provides habitat for many species.

(3) Hedgerows of native species should be planted around edges of open areas to provide edge effect. Hedgerows are used as nest sites by many species of birds and are well used as travel and resting sites by rabbits and other mammals.

(4) The population of rabbits in the park appears to be quite high. This population would be made more secure if brush piles were constructed throughout the park. Brush piles provide cover for rabbits and other small mammals to get away from predators and the elements.

(5) Trees with cavities suitable for nesting by squirrels should be saved as den trees. In addition, artificial nest boxes should be erected in areas that appear to be devoid of natural cavities.

APPENDIX F

LIST OF FISH
and
FISH MANAGEMENT INFORMATION

STREAM SURVEY STATION REPORT

DEPARTMENT OF NATURAL RESOURCES

FORM 3600-39

NAME OF STREAM	Survey Station No.	POINT OF EXAMINATION
Kinnickinnic River	1	County Highway "F" bridge. Shocked upstream. Started 300' below bridge.
COUNTY: St. Croix		

Township	Range	Section	Distance Sampled (ft.)	GEAR USED
27N	19W	18	3800	250 Volt D.C. Shocker w/2 E.H.

Avg. Width (ft.)	Avg. Depth (ft.)	Vol. of Flow (c.f.s.)	VELOCITY	Max. Flood Crest (ft.)
60	0.8	Not taken	☐ Sluggish ☐ Moderate ☒ Rapid	5+

WATER	CONDUCTANCE	TEMPERATURE	pH	M.P.A.
☒ Clear ☐ Stained ☐ Dirty	C_f ..... C_{77} 448	65° Water 79° Air (8-12-75) 2:00 pm Time	8.0	198 ppm

WATER LEVEL CONDITIONS	PRIOR WEATHER CONDITIONS
....In. Below X Normal ....In Above	Light rain. Warm.

POLLUTION: None observed.

STREAM BOTTOM TYPES (%): .....Bedrock .....Hardpan 1 Boulder 20 Rubble 39 Gravel 35 Sand 5 Silt .....Marl .....Detritus

POOL GRADE: B

POOL-RIFFLE RATIO: 30-70

AQUATIC VEGETATION (Species)	Abund.	AQUATIC VEGETATION (Species)	Abund.	AQUATIC VEGETATION (Species)	Abund.
Ranunculus sp.	P				
Elodea	P				
Sparganium sp.	P				

INSTREAM COVER	Scarce	Common	Abundant	Stable	Unstable	AQUATIC LIFE	Scarce	Common	Abundant
Undercut banks		X		X		Stonefly	X		
Rocks, boulders	X			X		Mayfly		X	
Logs, trees	X				X	Caddisfly		X	
Debris	X				X	Shrimp	X		
Aquatic Vegetation	X				X	Crayfish	X		

STREAM BANK VEGETATION

.....% Cultivated .....75.....% Upland Hardwood .....% Swamp Conifer

.....% Firm Pasture .....% Upland Conifer .....% Shrub Marsh

.....% Meadow Pasture .....25.....% Swamp Hardwood .....% Open Marsh

STREAM COVER: ☐ Dense ☐ Partly Open ☒ Open

FISHABILITY: ☒ Excellent ☐ Good ☐ Fair ☐ Poor

BANK EROSION: ☐ Heavy ☒ Medium ☐ Light ☐ None

BANK HEIGHTS: 3 to 150' (Limestone outcropping)

NEED FOR INSTREAM DEVICES: ☐ Heavy ☐ Medium ☒ Light ☐ None

DAMS	Number	Height	Pool Area Above
Man-made	0		
Beaver (active)	0		
Beaver (inactive)	0		

REMARKS

Some instream trout habitat work is needed, but it is not economically feasible due to poor accessibility to the stream with heavy equipment. All of the trout captured are native brown trout.

(use back of sheet for additional remarks)

DATE OF SURVEY	INVESTIGATOR
8-12 & 13-75	Bert J. Apelgren

REV. 7-74

Department of Natural Resources

STATION FISH SAMPLING SUMMARY
Form 3600-57

STREAM				INVESTIGATOR		
Kinnickinnic River				Bert J. Apelgren		
Area Sampled:	LENGTH	WIDTH	AREA (ACRES)	STATION NO.	NO. PER ACRE	DATE
	3800'	55'	4.8	1	15	8-12-75

SIZE RANGE	SPECIES				
	Brown Trout	Burbot	SM Bass	Walleye	
1					
1.0 - 1.4					
1.5 - 1.9					Emerald Shiner - C
2.0 - 2.4			2		
2.5 - 2.9			17		Longnose Dace - C
3.0 - 3.4	1		1		
3.5 - 3.9	1				Logperch - C
4.0 - 4.4	5				
4.5 - 4.9					Johnny Darter - S
5.0 - 5.4					
5.5 - 5.9				1	Common Sucker - C
6.0 - 6.4					
6.5 - 6.9					[redacted] - P
7.0 - 7.4	2				
7.5 - 7.9	6				N. Redhorse - P
8.0 - 8.4	2				
8.5 - 8.9	2				Creek Chub - P
9.0 - 9.4	6				
9.5 - 9.9	3		1		Blacknose Dace - C
10.0 - 10.4	4				
10.5 - 10.9			1		Yellow Perch - P (2.6"
11.0 - 11.4	1	1	2		
11.5 - 11.9					Chestnut Lamprey - P
12.0 - 12.4	4				
12.5 - 12.9	4				Carp - P
13.0 - 13.4	7				
13.5 - 13.9	5	2			Freshwater Drum - P
14.0 - 14.4	7				(13.0")
14.5 - 14.9	4				
15.0 - 15.4	1				Sauger - P
15.5 - 15.9					(12.5")
16.0 - 16.4	2				
16.5 - 16.9	2				
17.0 - 17.4	1				
17.5 - 17.9	1				
18.0 - 18.4					
18.5 - 18.9					
19.0 - 19.4					
19.5 - 19.9					
20.0 - 20.4					
20.5 - 20.9					
21.0 - 21.4					
21.5 - 21.9					
22.0 - 22.4					
22.5 - 22.9					
23.0 - 23.4					
23.5 - 23.9					
24.0 - 24.4					
24.5 - 24.9					
25 · (give actual size)					
TOTAL	71	3	24	1	

Rev. 3-75

CORRESPONDENCE/MEMORANDUM

STATE OF WISCONSIN

Date: March 20, 1975 File Ref: 1600

To: A. R. Santala

From: Bert J. Apelgren

Subject: Fish Management aspects of Preliminary Environmental Report - Kinnickinnic Park, St. Croix County

Reference is made to your request for a summary of the fisheries values of the waters associated with the Kinnickinnic Park. Two waters are involved in this report, the Kinnickinnic River and Lake St. Croix. Given below is the available information requested in outline form in Mr. Welsh's memorandum of October 4, 1975.

I. Aquatic Life Forms in Waters Within and Adjacent to the Park

A. Vertebrates

1. Fish

Common Name	Scientific Name
American Brook Lamprey	Lampetra lamottei
Longnose gar	Lepisosteus osseus
Bowfin	Amia calva
Mooneye	Hiodon tergisus
Gizzard shad	Dorosoma cepedianum
Quillback	Carpiodes syprinus
White sucker	Catostomus commersoni
Spotted sucker	Minytrema melanops
Greater redhorse	Moxostoma rebreques
Silver redhorse	Moxostoma anisurum
Northern redhorse	Moxostoma macrolepidotum
River carpsucker	Carpiodes carpio
Carp	Cyprinus carpio
Silver chub	Hybopsis stroreiana
Channel catfish	Ictalurus punctatus
Black bullhead	Ictalurus melas
Brown bullhead	Ictalurus nebulosus
Yellow bullhead	Ictalurus natalis
Northern pike	Esox lucius
White bass	Roccus chrysops
Yellow perch	Perca flavescens
Sauger	Stizostedion canadense
Walleye	Stizostedion vitreum
Logperch	Percina caprodes
Smallmouth bass	Micropterus dolomieui
Largemouth bass	Micropterus salmoides

A. R. Santala - March 20, 1975

Hybrid sunfish	Lepomis cyanellus x?
Pumpkinseed	Lepomis gibbosus
Bluegill	Lepomis machrochirus
Rock bass	Ambloplites rupestris
White crappie	Pomoxis annularis
Black crappie	Pomoxis nigromaculatus
Freshwater drum	Aplodinotus grunniens
Burbot	Lota lota maculosa
American eel	Anguilla rostrata
Brown trout	Salmo truta
Paddlefish	Polyodon spathula
Shovelnose sturgeon	Scaphirhynchus platorynchus
Lake sturgeon	Acipenser fulvescens
Shortnose gar	Lepisosteus platostomus
Blue sucker (TH)	Cycleptus elongatus
Northern hogsucker	Hypentelium nigricans
Bigmouth buffalo	Ictiobus cyprinellus
Flathead catfish	Pylodictus olivaris
Stonecat	Noturus flavus
Muskellunge	Esox masquinongy
Creek chub	Semotilus atromaculatus
Johnny darter	Etheostoma nigrum
Blacknose dace	Rhinichthys atratulus
Stoneroller	Campostoma anomalum
Longnose dace	Rhinichthys cataractae
Bluntnose minnow	Pimephales notatus
Common shiner	Notropis cornutus
Emerald shiner	Notropis atherinoides
Spotfin shiner	Notropis spilopterus
Spottail shiner	Notropis hudsonius

2. Amphibians

American toad	Bufo terrestris
Green frog	Rana clamitans
N. Leopard frog	Rana pipiens
Mudpuppy	Necturus maculosus

3. Reptiles

Smooth softshell turtle	Trionyx muticus
Snapping turtle	Chelydra serpentina
Western painted turtle	Chrysemys picta
Common garter snake	Thamnophis sirtalis
Timber rattlesnake	Crotalus horridus

B. Invertebrates

(No information available in files)

C. Aquatic Plants

(No information available in files)

A. R. Santala - March 20, 1975

II. Aquatic Life Forms Targeted for Management

A. There are season restrictions, daily bag and/or possession limits and size limits on the game fish species present. There are daily bag limits and/or possession limits on the panfish species.

III. Fisherman Pressure

A. Fishing pressure is light on the lower Kinnickinnic River, but trout fishing is increasing each year.

B. Fishing pressure is no greater than moderate on Lake St. Croix. On May 1, 1965 (probably the opening day of the fishing season), an aerial census revealed only 18 fishing boats to be present on the lake in the area between Hudson and the confluence of the Kinnickinnic River with Lake St. Croix. However there is intense fishing pressure at certain specific locations such as at the Kinnickinnic narrows jammed with 20 to 30 boats.

IV. Game Fishing Harvest

A. The warmwater game fish harvest from the lower Kinnickinnic River is insignificant. Trout are harvested in moderate numbers.

B. No fish harvest data is available for Lake St. Croix. It is known that there is some angling pressure for smallmouth bass, sauger, white bass and walleye on the lake.

V. Water Classifications

A. The lower Kinnickinnic River is rated as a Class I trout stream.

B. Lake St. Croix is classed as a warmwater lake.

VI. Fish Management Planned

A. Stream habitat improvement

1. There are no existing or future plans for fish habitat improvements in any of the waters within or adjacent to the Park.

B. Stocking

1. No fish are presently being stocked in the Park's waters. No stocking of fish is planned in the foreseeable future.

C. Springs Preservation

1. All springs in the Park should be protected from desecration by the public.

D. Fisherman Access

1. A public access to the lower Kinnickinnic River is needed in the Park immediately west of the County Trunk Highway "FF" bridge. There are no existing public access sites on the river within the Park.

2. The steep topography of the land adjacent to Lake St. Croix does not lend itself to the establishment of a public access site on the lake shore. There are no existing developed accesses to the lake adjacent to the Park.

VII. Amphibian Management

There is no active or planned management of amphibians in the Park except for frog regulations which are subject to changes on county-wide basis rather than a more local basis.

VIII. Rare, ~~Changing Status~~ THREATENED or Endangered Species

A. ~~Endangered~~ THREATENED

1. ~~Greater redhorse~~ BLUE SUCKER - this species was recorded as being present in Lake St. Croix in 1964. Its relative abundance is unknown. The operation of the Kinnickinnic Park will not have an adverse effect upon this species.

~~B. Changing Status~~

~~1. American eel~~

~~2. Blue sucker~~

~~3. Paddlefish~~

The three species listed above are known to inhabit Lake St. Croix. The operation of the Kinnickinnic Park will not be detrimental to the listed species.

Bert J. Apelgren

BJA:ch

NOTED:

_____ _____

Date

APPENDIX G

SCIENTIFIC AREA DESCRIPTION

Proposed
MANAGEMENT PLAN

Kinnickinnic Gorge & Delta		Pierce County
State Scientific Area	No.	County

Part I of this plan contains the recommended general procedures for the management of state scientific areas. Some items may not apply to this scientific area. Part II contains modifications to the general procedures and specific recommendations for this area as jointly agreed to by the owners or administrators of this area, the Scientific Areas Section in the Department of Natural Resources, and the Scientific Areas Preservation Council. The plan will be reviewed periodically and amended as needed.

The objective of these procedures is to preserve the scientific area in a natural condition with as little disturbance as possible. Management decisions should be guided by the preceding statement when not otherwide covered in this plan.

PART I - GENERAL MANAGEMENT PROCEDURES

A. Management of the Biotic Communities

1. Removal of plants, plant parts, minerals, animals and artifacts is generally not permitted. However, hunting, fishing, trapping, berry picking and nut gathering is permitted if not expressly restricted in Part II or otherwise prohibited by law. Collecting for scientific purposes may be allowed by joint permission of the Scientific Areas Preservation Council and the owner or administrator of the area by written permit.

2. Cutting of dead, down, living trees or other vegetation is to be limited to that essential to meet safety requirements along roads, trails and firebreaks. Where cutting is essential, material should be left within the scientific area.

3. Control of abnormal animal populations or control of plant succession with the use of fire, mowing or water level manipulation, may be employed to maintain a particular scientific area type, if provided for in Part II. However, no alteration of the biotic community will be initiated without the approval of both the property manager and the Council.

4. Introductions of plant and animal species, whether native or exotic is generally prohibited.

5. Herbicides, insecticides, fungicides, or other chemicals should not be used for plant or animal control. The Council shall be notified of any emergency need for exceptions to this rule.

B. Public Use

1. Intensive public use should generally not be encouraged. Any public use whether recreational or educational which damages vegetation or otherwise impairs natural conditions should be discouraged and if necessary controlled. Recreational use such as hiking and observation, and educational use which does not degrade the natural features is encouraged.

2. There should be a minimum of attention-drawing signs. A sign regarding the area's purpose and use limitations is desirable where roads or trails pass through or adjacent to frequently used scientific areas. Boundaries may be marked with suitable stakes for the convenience of the property manager and visitors.

B. Public Use (Continued)

3. Vehicle traffic of all types is discouraged. Existing trails and access roads may be maintained. They should be identified and located on the attached management plan map. New walking trails may be constructed where use is heavy or where needed to protect sensitive vegetation, following joint approval of the Council and the property manager.

4. No buildings, and other improvements such as fireplaces, picnic grounds, athletic facilities or beaches, dams or other waterway modification devices will be constructed. Any public use facility, maintenance facility or habitat modifying device essential to the scientific area should be located in a surrounding buffer zone.

PART II - SPECIFIC RECOMMENDATIONS, ADDITIONS OR EXCEPTIONS TO GENERAL PROCEDURES

A.

3. Deer hunting should be encouraged and continued to protect sensitive vegetation from overbrowsing, while physical alteration of the main Kinnickinnic River channel or old channel is not contemplated, if further delta accumulation results in stagnation of water in the intensive recreation zone adjoining, the old river channel may be altered to allow flushing and restore water movement.

B. Hiking and nature trails along and in the main river gorge are permitted.

A trail may be established up the tributary to Devil's Mixing Bowl, however, no trail is to be constructed on the south Kinnickinnic valley edge above Devil's Mixing Bowl. Scientific area signs will be used to identify the bowl.

This management plan and attached management map is approved as a part of the agreement between the Scientific Areas Preservation Council and _____, owners or administrators of _____ scientific area.

For the Scientific Areas Preservation Council:		For owner or administering agency:	
_____	_____	_____	_____
Chairman	Date		Date
_____	_____	_____	_____
Secretary	Date		Date

2800-8 Scientific Area No. _____

Wisconsin Scientific Areas Preservation Council
Scientific or Natural Area Report

Name of Area Kinnickinnic State Park Scientific Area Inspection Date various latest 4 Sep. 74

Quarter NW County Pierce Twsp. 27N Range 20W Sections 13, 14

Boundaries and acreage of proposed or established area and buffer: Section 13: NW 1/4 SW 1/4, south of north bank 800' contour, and north of upland field-forest edge on south side; W 1/2 NE 1/4 SW 1/4, same boundary portions as above. Section 14: NE 1/4, south of north delta bank of mouth and following 800' contour on north side; to south following forest-field edge on upland. See attached map.

Access to area: Best access by boat or from south side of Kinnickinnic River across farmed uplands.

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

The lower Kinnickinnic River gorge displays a large variety of habitats within a one mile section of river. The deep river valley, cut into glacial drift, sandstone and limestone, contains dry-mesic forest on the sheltered north-facing slope and xeric oak-cedar woods and small prairie openings on the exposed south-facing slope. With the limestone exposure and shaded slope the steep south bank contains large beds of Canadian yew and walking fern under a moderately wooded forest of sugar maple, ironwood and white pine. See attached species presence list. Dripping to dry cliffs are found intermittently along the valley. The most spectacular example of dripping cliffs is found in a canyon known as the Devil's Mixing Bowl on the south side of the river. The canyon bottom contains ephemeral pools. Of special geomorphologic interest is the large semi-open delta that is being deposited by the Kinnickinnic River into the St. Croix River. (Part of the southern portion of the delta, however, seems largely a result of dredge spoil deposits - see attached map.) To the south and behind the delta deposits is a large slough possessing great wildlife value - osprey, great blue herons, ducks, gulls, painted and soft-shelled turtles were seen on latest

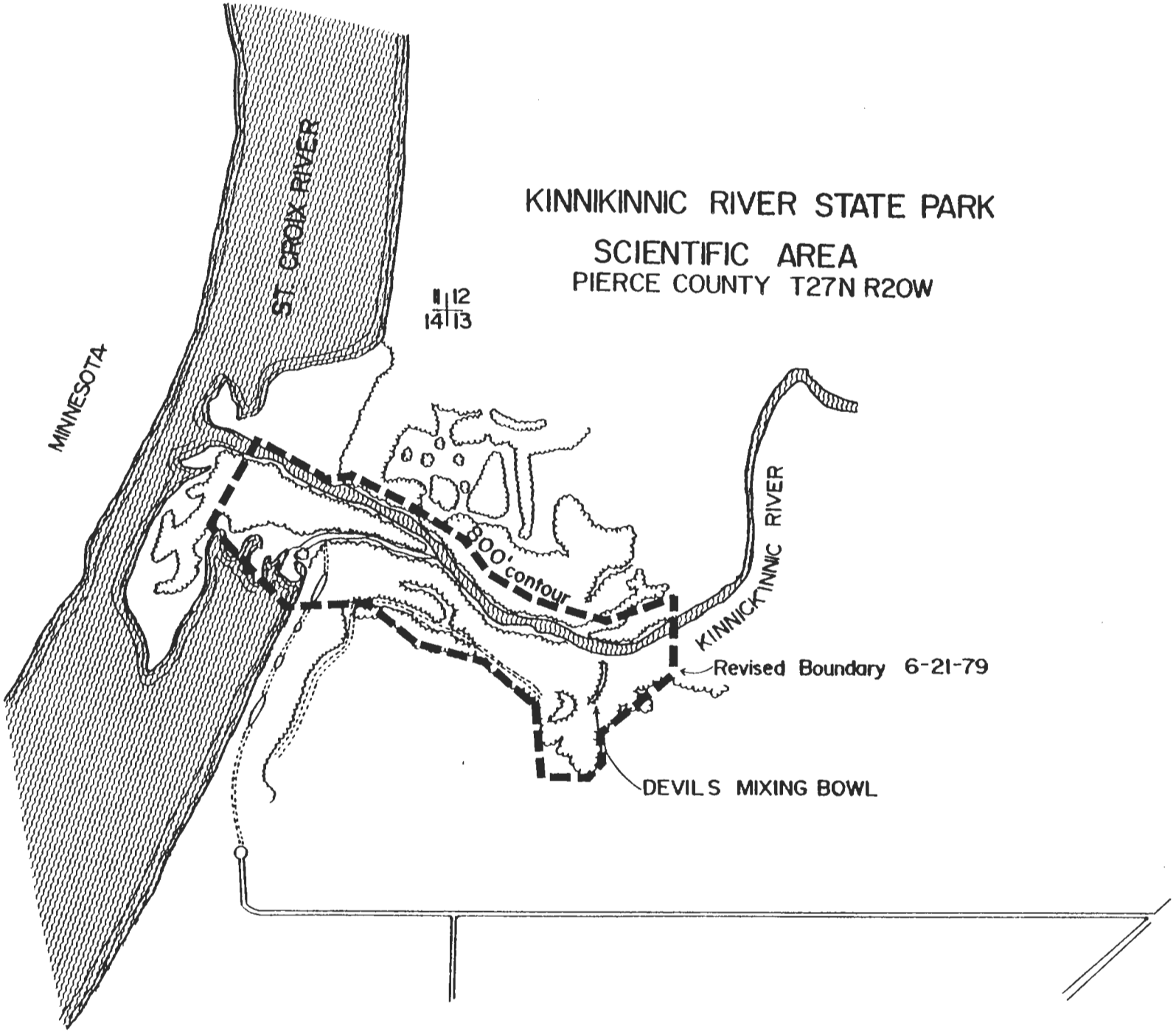
History of land use and limiting factors: Steep-sided river valley susceptible to trampling damage. Devil's Mixing Bowl fragile and dangerous from above (overhanging ledges). Open delta is a popular recreation area and needs sanitary facilities. Kinnickinnic River levels fluctuate daily due to power plant at River Falls.

Administrative information: Landowner and administrator, existing and proposed management, degree of scientific, educational and recreational use of area, adjacent lands and compatibility. Part of Kinnickinnic State Park. The portion of park described as scientific area has no conflict with proposed development plans. Hiking trail at river level would be compatible recreation use. Area is close to UW-River Falls and has been extensively used by their biology department.

Reference information: person recommending area, references, quadrangle and other publications and date of action taken toward designation of area. Recommended by C. E. Germain. Quadrangle: Prescott 7.5' (1972), Hudson 15' (1949). See "Floristic Summary of Kinnickinnic River Valley" and species list by J. W. Richardson (unpublished); see other study reports by UW-River Falls personnel. See Martin, L., Physical Geography of Wisconsin, pp. 202-203.

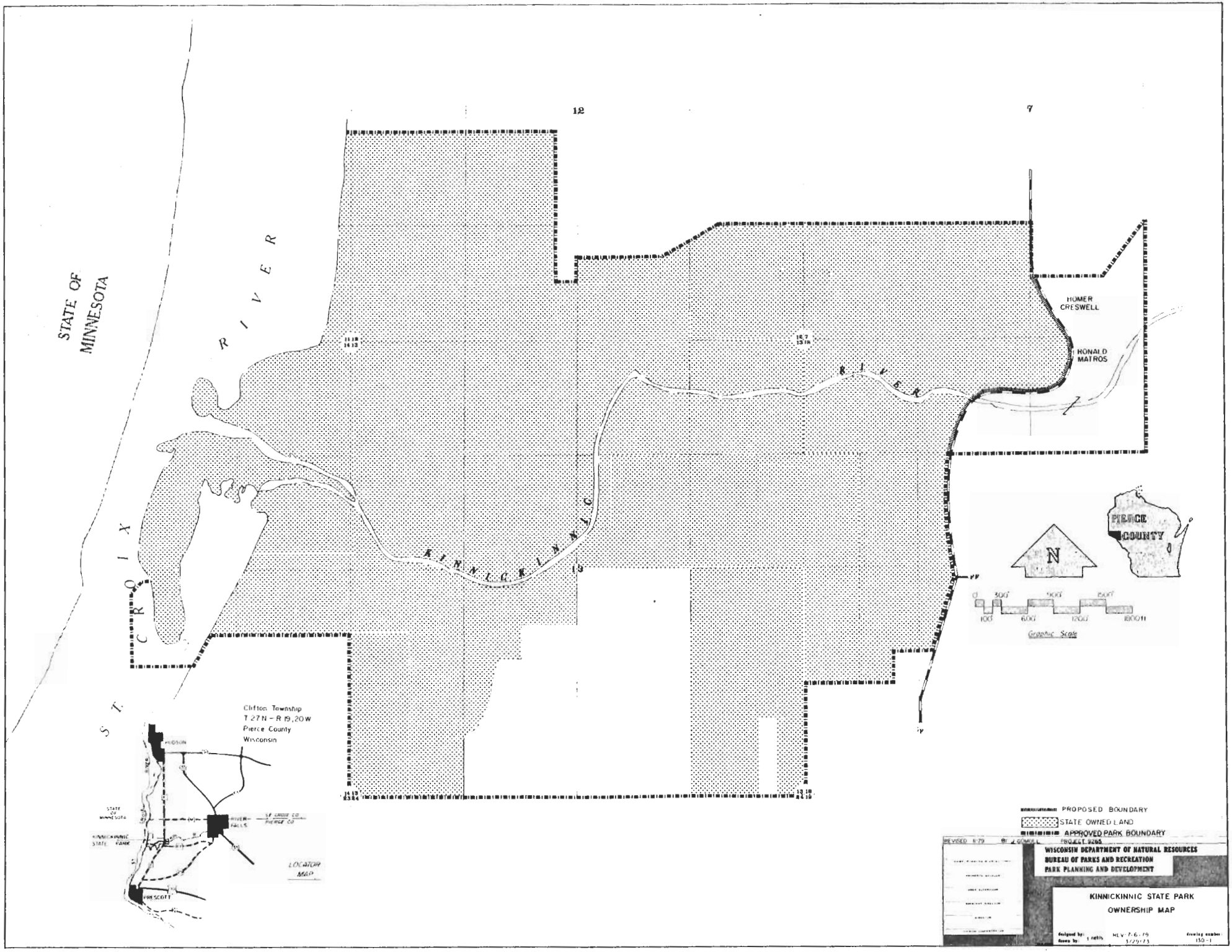
Report by: Robert H. Read Date: November 8, 1974

mr
2/27/74


KINNIKINNIC RIVER STATE PARK
SCIENTIFIC AREA
PIERCE COUNTY T27N R20W
11 12
14 13
ST. CROIX RIVER
MINNESOTA
800' contour
KINNICKINNIC RIVER
Revised Boundary 6-21-79
DEVIL'S MIXING BOWL

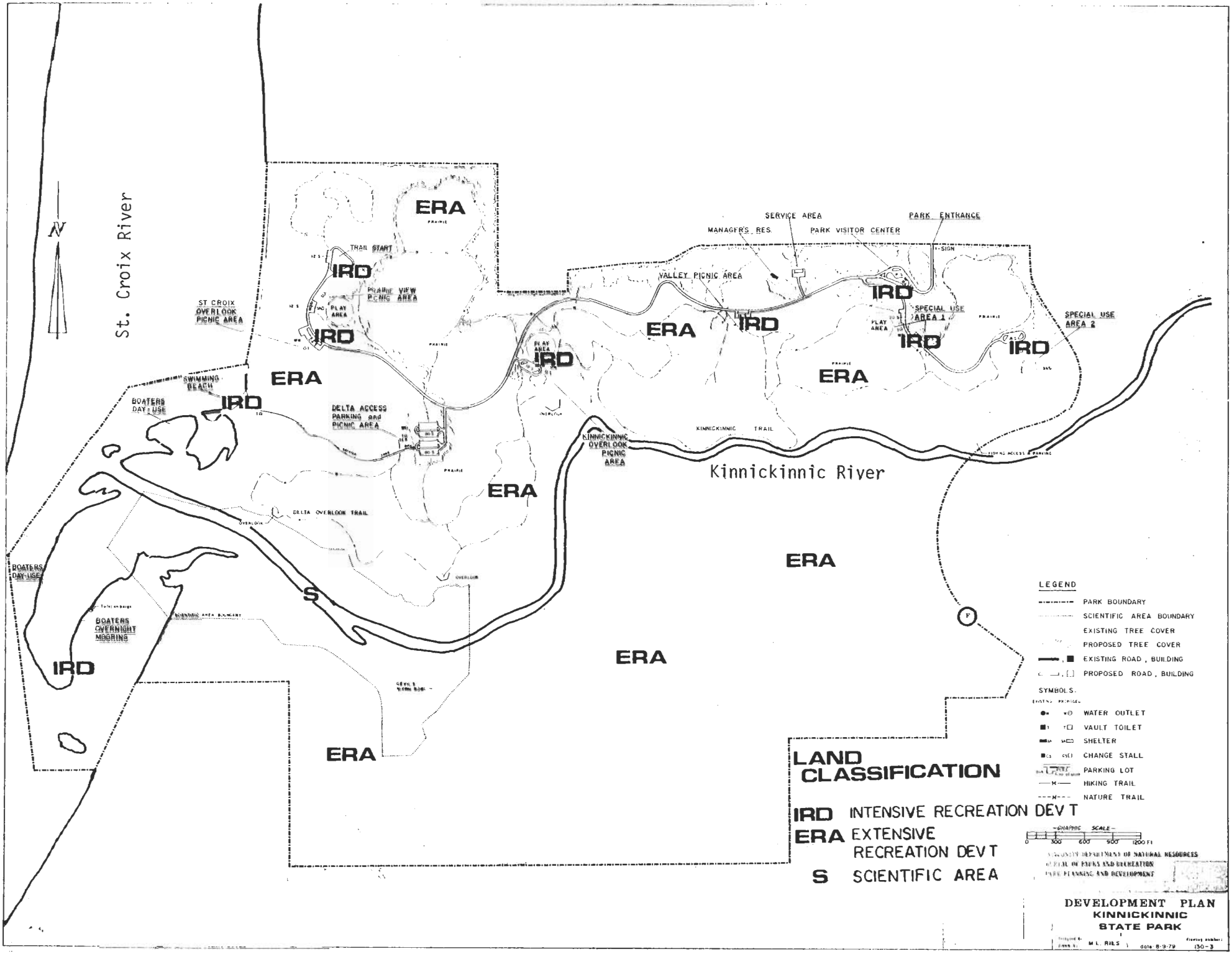
APPENDIX H

ACQUISITION MAP


STATE OF MINNESOTA
ST. CROIX RIVER
KINNICKINNIC RIVER
12
7
18
HOMER CRESWELL
RONALD MATROS
PIERCE COUNTY
N
0
300'
900'
1500'
100'
600'
1200'
1800ft
Graphic Scale
Clifton Township
T 27 N - R 19, 20 W
Pierce County
Wisconsin
LOCATOR MAP
PRESCOTT
RIVER FALLS
PROPOSED BOUNDARY
STATE OWNED LAND
APPROVED PARK BOUNDARY
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
BUREAU OF PARKS AND RECREATION
PARK PLANNING AND DEVELOPMENT
KINNICKINNIC STATE PARK
OWNERSHIP MAP
REVISED 6-79
PROJECT 9265
REV. 7-6-79
5/29/73
130-1

APPENDIX I

DEVELOPMENT PLAN


St. Croix River
N
ERA
IRD
TRAIL START
PRAIRIE VIEW PICNIC AREA
PLAY AREA
ST CROIX OVERLOOK PICNIC AREA
SWIMMING BEACH
BOATERS DAY USE
DELTA ACCESS PARKING and PICNIC AREA
DELTA OVERLOOK TRAIL
BOATERS OVERNIGHT MOORING
S
SERVICE AREA
MANAGER'S RES.
PARK VISITOR CENTER
PARK ENTRANCE
I-SIGN
VALLEY PICNIC AREA
SPECIAL USE AREA 1
SPECIAL USE AREA 2
KINNICKINNIC TRAIL
KINNICKINNIC OVERLOOK PICNIC AREA
Kinnickinnic River
LEGEND
PARK BOUNDARY
SCIENTIFIC AREA BOUNDARY
EXISTING TREE COVER
PROPOSED TREE COVER
EXISTING ROAD, BUILDING
PROPOSED ROAD, BUILDING
SYMBOLS.
WATER OUTLET
VAULT TOILET
SHELTER
CHANGE STALL
PARKING LOT
HIKING TRAIL
NATURE TRAIL
LAND CLASSIFICATION
IRD INTENSIVE RECREATION DEV T
ERA EXTENSIVE RECREATION DEV T
S SCIENTIFIC AREA
GRAPHIC SCALE
0 300 600 900 1200 Ft
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
BUREAU OF PARKS AND RECREATION
PARK PLANNING AND DEVELOPMENT
DEVELOPMENT PLAN
KINNICKINNIC
STATE PARK
M.L. RILS
date 8-9-79
130-3

APPENDIX J

Advisory Councils Comments and Department Response

UWEC UNIVERSITY OF WISCONSIN - EAU CLAIRE/EAU CLAIRE WISCONSIN 54701

DEPARTMENT OF GEOGRAPHY

April 22, 1980

Mr. D. J. Mackie
Bureau of Parks
Box 7921
DNR
Madison, WI 53707

Dear Don:

The review, comments and recommendations on Kinnickinnic State Park Master Plan Concept Element by the Wild Resources Advisory Council are probably the briefest of any filed by the Council. Actually the time spent on the review was one of the longest but the Property Task Force did such a splendid job of presenting the project area in accordance with the park philosophy, goals and objectives and planning for park use, that Council could only acquiesce with spiritual enthusiasm--amen. If a better concept element is produced for any state property the WRAC will acclaim it.

Sincerely,

Henry W. Kolka

Henry W. Kolka, Chairperson
Wild Resources Advisory Council

General Review, Comments and Recommendations for the Kinnickinnic State Park Master Plan Concept Element by the Wild Resources Advisory Council

General Review

The Kinnickinnic State Park is truly an unusual piece of DNR property. It was conceived by NRB recently in a climate of unusual compatibility and in a relatively short time interval. The talented Task Force compiled an impressive and one of the most complete sets of background data of any state owned property. The proposed Concept Element should be admired and commended for its persistent adherence to Park Philosophy as defined in its Goals and Objectives and the planned park management within the permissive rules of these goals and objectives. A most impressive document. The WRAC congratulates the Task Force in quality of Kinnickinnic Park assessment and recommended management of the environment and the potential user. One concept expressed in the objectives hit a mutual WRAC chord "the availability and educational value for present and future generations."

Comments and Recommendations by WRAC

Prelude. Since the WRAC is in general agreement with the Property Task Force of the Kinnickinnic State Park assessments and proposals, the Council's Comments and Recommendations are used sparingly.

1. pp. 2. D. Fish and Wildlife Service.
In light of Federal project cutbacks the FWS proposal to acquire 1900 acres along Kinnickinnic River between CTH F and River Falls is in jeopardy or at least in limbo for the time being. However the DNR should explore the possibility of protecting this stream corridor.

2. pp. 3. Geology and Topography.
From my professional know-how I conclude that "Glacial and postglacial deposition in Mississippi River across the mouth of the St. Croix" has very little impact in maintaining Lake St. Croix. However the submerged levee of Mississippi, the more aggressive stream, definitely does.

3. pp. 5, next to last paragraph.
The WRAC urges that the sentence "The white pine also show excavating by pileated woodpeckers" be modified. It maligns a noble wilderness bird who's habitat is continually shrinking. The pileated has an honorable function in certain ecosystems of our wild areas and the specie is welcomed and admired by all interested bird watchers. The Council urges that this negative reference be stricken from the paragraph.

4. pp. 6, 3rd paragraph under F. Land use potential.
As member of Scientific Areas Preservation Council and a Chairperson of WRAC and a member of field reconnaissance of the Scientific Area and the Kinnickinnic River corridor I endorse the proposal as submitted. The WRAC commends the Task Force on the procedure used.

5. pp. 6, last paragraph under E.
The WRAC endorses the exclusion of: snowmobiling, horseback riding and off road vehicle use in the park area for the same reasons that are listed by the Task Force.

6. pp. 8. B. Moderate park development.
The WRAC recommends the NRB supports the recommended alternative of the Project Task Force of Moderate Park Development.

7. pp. 9. Goal and Objectives.
In the opinion of WRAC the Goal and Objectives of the Property Task Force for the Kinnickinnic State Park are fundamentally sound and realistic. The Council has no qualms in endorsing them in their entirety.

8. pp. 10, and paragraph from the top.
The WRAC recommends that NRB approve the acquisition goal of 1264 acres as proposed by the Property Task Force.

9. pp. 11, and paragraph from top.
The edge and planned management has occurred frequently in the text of the master plan. The WRAC recommends that whereever shrub growth management and plantings are considered that the flowering wildlife food producing species be given top priority.

Respectfully submitted,

Henry W. Kolka

Henry W. Kolka, Chairperson
Wild Resources Advisory Council

APR 25 1980

The State of Wisconsin

SCIENTIFIC AREAS PRESERVATION COUNCIL

April 25, 1980

IN REPLY REFER TO: 2800

Mr. Don Mackie
Bureau of Parks & Recreation
Department of Natural Resources
P.O. Box 7921
Madison, WI 53707

Dear Mr. Mackie:

The Kinnickinnic State Park Master Plan includes a proposed scientific area recommended by the Scientific Areas Preservation Council. The boundaries of the tract and management guidelines were negotiated through discussions between the Master Planning Task Force, the Scientific Areas Section and the Council. Designation of this tract will protect an area of high natural diversity and scientific value. Though the scientific area description is contained in Appendix G, we believe it belongs in the Resource Capability Section of the plan.

The description of vegetation under Resource Capability is deficient in that the forestry aspects of the wooded areas are emphasized and other values are ignored. Since timber production is not a property goal, a discussion of the vegetation in terms of natural area, wildlife and scientific values would be more appropriate.

The vegetation management section on page 14 implies tree removal to "insure a healthy timber stand". We suggest that tree mortality and plant succession be accepted as a natural occurrence in state parks, and that tree removal be limited to that required for protection of visitors and that required to control serious tree diseases or insect outbreaks.

Sincerely,

Forest Stearns
Chairman

CORRESPONDENCE/MEMORANDUM

STATE OF WISCONSIN

Date: May 27, 1980 File Ref: 2510

To: C. Kabat - RES/4

From: D. J. Mackie

Subject: SAPC Comments On Kinnickinnic State Park Master Plan

This is the Department's response to the review comments by the Scientific Areas Preservation Council on the Kinnickinnic State Park Master Plan.

The following are the Council's comments item by item and the Department's response.

1. "The Kinnickinnic State Park Master Plan includes a proposed scientific area recommended by the Scientific Areas Preservation Council. The boundaries of the tract and management guidelines were negotiated through discussions between the Master Planning Task Force, the Scientific Areas Section and the Council. Designation of this tract will protect an area of high natural diversity and scientific value. Though the scientific area description is contained in Appendix G, we believe it belongs in the Resource Capability Section of the plan."

Department Response:

Mention of the proposed 110-acre scientific area is made in the "Land Use Potential" section on page 6. As in previous plans, the longer more detailed description of the scientific area is provided in the appendix.

2. "The description of vegetation under Resource Capability is deficient in that the forestry aspects of the wooded areas are emphasized and other values are ignored. Since timber production is not a property goal, a discussion of the vegetation in terms of natural area, wildlife and scientific values would be more appropriate."

Department Response:

All references to timber management in the Vegetative Potential Section (page 5) were removed. Timber management in the form of tree cutting will conform to the Secretary's directive M. C. 2532.

3. "The Vegetation Management Section on page 14 implies tree removal to "insure a healthy timber stand." We suggest that tree mortality and plant succession be accepted as a natural occurrence in state parks, and that tree removal be limited to that required for protection of visitors and that required to control serious tree diseases or insect outbreaks."

Department Response:

The first paragraph of the Vegetative Management Section on page 14 was rewritten in accord with the the above directive which limits cutting in parks and other recreation areas to safety purposes, salvage, aesthetics and perpetuation of a forest stand situation.

Thank you for the Council's review and comments on the Kinnickinnic Master Plan.

cc: J. L. Treichel - P&R/4
D. J. Kulhanek - P&R/4

OJK

STATE OF WISCONSIN

CORRESPONDENCE/MEMORANDUM

Date: May 28, 1980 *File Ref:* 2510

To: R. Lindberg - PLN/6

From: D. J. Mackie

Subject: WRAC Committee on Kinnickinnic State Park Master Plan

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

1. COUNCIL COMMENTS CONCERNING pp. 2. D.

"In light of Federal project cutbacks the FWS proposal to acquire 1900 acres along Kinnickinnic River between CTH F and River Falls is in jeopardy or at least in limbo for the time being. However, the DNR should explore the possibility of protecting this stream corridor."

DEPARTMENT RESPONSE

The Fish and Wildlife Service was given a copy of the Kinnickinnic plan to review. They rewrote section D on page two to more accurately depict the current status of their Kinnickinnic project. This material was incorporated into the plan. In case the FWS project does not materialize it is highly unlikely the Department will reconsider purchase of the 60 acres of private lands proposed for exclusion from the project boundaries. These lands contain expensive improvements and it would be difficult for the Department to justify the expenditure of dwindling acquisition funds for lands strictly for buffer purposes.

2. COUNCIL COMMENT CONCERNING pp. 3. H. 1.

"From my professional know-how I conclude that "Glacial and postglacial deposition in Mississippi River across the mouth of the St. Croix" has very little impact in maintaining Lake St. Croix. However the submerged levee of Mississippi, the more aggressive stream, definitely does.

DEPARTMENT RESPONSE

No comment required.

3. COUNCIL COMMENTS CONCERNING pp. 5, NEXT TO LAST PARAGRAPH

"The WRAC urges that the sentence "The white pine also show excavating by pileated woodpeckers" be modified. It maligns a noble wilderness bird who's habitat is continually shrinking. The pileated has an honorable function in certain ecosystems of our wild areas and the specie is welcomed and admired by all interested bird watchers. The Council urges that this negative reference be stricken from the paragraph."

DEPARTMENT RESPONSE

The reference to pileated woodpeckers will be stricken from the paragraph.

4. COUNCIL COMMENTS CONCERNING pp. 6, 3rd PARAGRAPH UNDER F.

"As member of Scientific Areas Preservation Council and a Chairperson of WRAC and a member of field reconnaissance of the Scientific Area and the Kinnickinnic River corridor I endorse the proposal as submitted. The WRAC commends the Task Force on the procedure used."

DEPARTMENT RESPONSE

We thank the Council for their endorsement of the Kinnickinnic Land Use Potential Proposal.

5. COUNCIL COMMENTS CONCERNING pp. 6, LAST PARAGRAPH UNDER E.

"The WRAC endorses the exclusion of: snowmobiling, horseback riding and off-road vehicle use in the park area for the same reasons that are listed by the Task Force."

DEPARTMENT RESPONSE

Again we thank the Council for their endorsement.

6. COUNCIL COMMENTS CONCERNING pp. 8. B.

"The WRAC recommends the NRB supports the recommended alternative of the Project Task Force of Moderate Park Development."

DEPARTMENT RESPONSE

The Board will be informed of the Council's recommendation of the moderate park development alternative provided in the master plan.

7. COUNCIL COMMENTS CONCERNING pp. 9. VIII

"In the opinion of WRAC the Goal and Objectives of the Property Task Force for the Kinnickinnic State Park are fundamentally sound and realistic. The Council has no qualms in endorsing them in their entirety."

DEPARTMENT RESPONSE

The Council's endorsement of the Goal and Objectives for Kinnickinnic State Park is acknowleged.

8. COUNCIL COMMENTS CONCERNING pp. 10, AND PARAGRAPH FROM THE TOP

"The WRAC recommends that NRB approve the acquisition goal of 1,264 acres as proposed by the Property Task Force."

DEPARTMENT RESPONSE

The Council's recommendation of the proposed 1,264 acre acquisition goal will be transmitted to the Board.

9. COUNCIL COMMENTS CONCERNING pp. 11, AND PARAGRAPH FROM THE TOP

"The edge and planned management has occurred frequently in the text of the master plan. The WRAC recommends that wherever shrub growth management and plantings are considered that the flowering wildlife food producing species be given top priority."

DEPARTMENT RESPONSE

Any reference to proposed shrub plantings in the master plan will stress the use of flowering wildlife food producing species.

We thank the Council for their comprehensive review and comments on the Kinnickinnic Master Plan.

cc: J. L. Treichel - P&R/4
D. J. Kulhanek - P&R/4