A Management Plan for Kilen Woods State Park

Minnesota Department of Natural Resources

A Management Plan for Kilen Woods State Park

Prepared by the Minnesota Department of Natural Resources

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Committee of Concerned Citizens
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Jackson County Parks and Zoning
Belmont Township Board
Region Eight Development Commission
Soil Conservation Service, Survey Office
DNR In-House Review Team
Minnesota State Planning Agency
Minnesota Historical Society
Minnesota Department of Transportation

All those individuals and groups who attended the meetings and/or sent in comments throughout the planning process.

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LIST OF ABBREVIATIONS

ORA '75 - Outdoor Recreation Act of 1975
DNR - Minnesota Department of Natural Resources
MHS - Minnesota Historical Society
MPD - Management Plan Details
GPMP - General Park Management Plan
CETA - Comprehensive Employment Training Act
SNA - Scientific and Natural Area
TH - Trunk Highway
I - Interstate
mi - mile
km - kilometer
sq mi - square mile
sq km - square kilometer
ft - foot/feet
m - meter
in. - inch
cm - centimeter
kg - kilogram
cfs - cubic feet per second
cms - cubic centimeters per second
ppm - parts per million
ROW - right-of-way
msl - mean sea level
gpm - gallons per minute
lpm - liters per minute
hp - horsepower
F - Farenheit
C - Centigrade
p - page
pp - pages

PREFACE

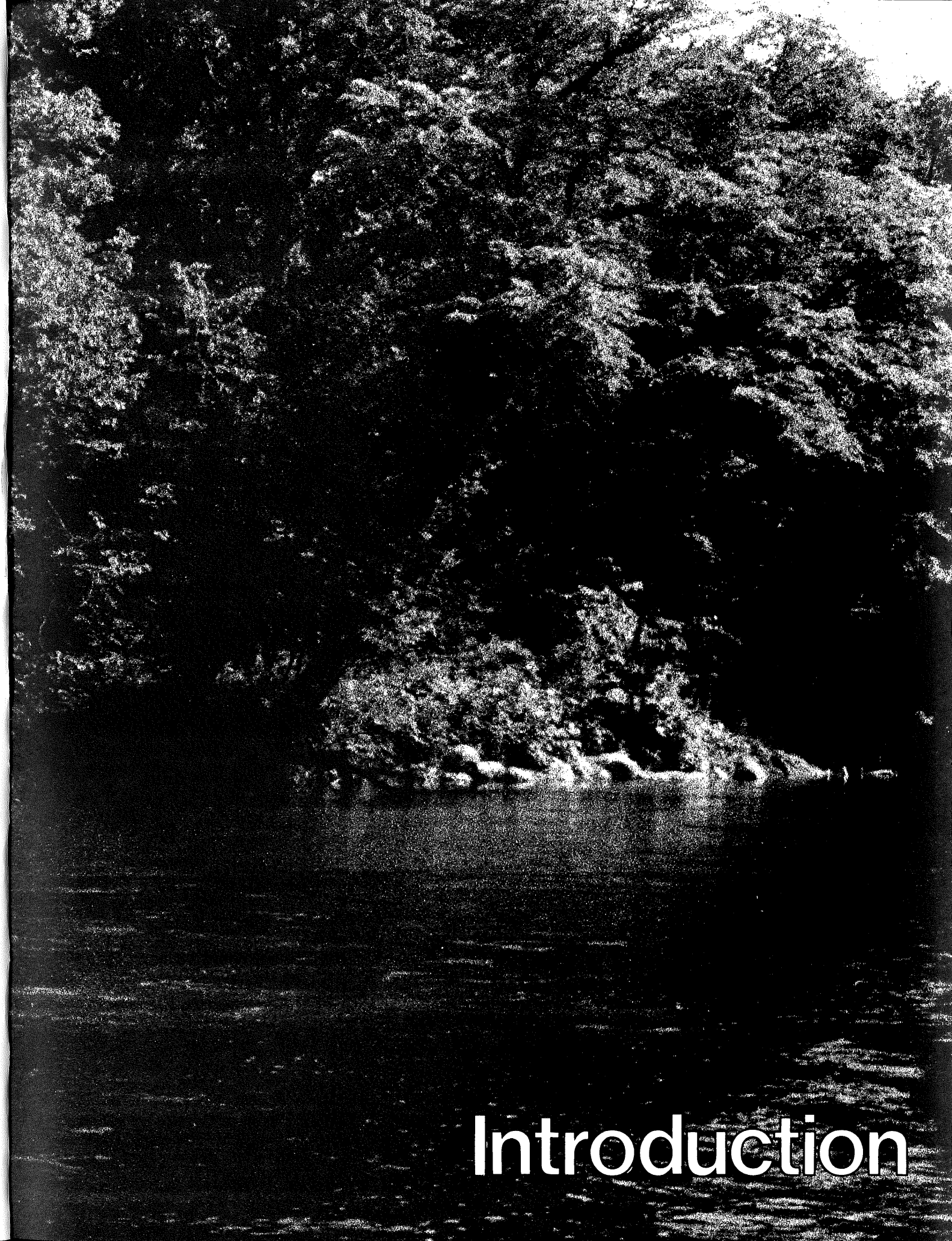
The primary concern in the development of the park management plan format for the 1978-79 biennium was the identification of the "audience." For whom are these plans to be written? Eight different audiences were identified.

1. DNR reviewers of the whole planning process
2. DNR reviewers whose main concern is one specific part to the plan
3. DNR regional administrators, supervisors, and park managers
4. SPA reviewers
5. The general public
6. Special interest groups
7. Reviewers of the environmental impacts of proposed actions
8. Legislators

The requirements of each of the audiences are different. All audiences require a document which includes some technical data, but the degree of detail as well as the manner of presentation varies. Some audiences require that specific topics be discussed in detail in all phases from inventory through recommended management. Other groups require a short, non-technical, yet comprehensive and logical management plan. A plan, obviously, cannot be both technical and non-technical nor can it be both long and short. It seemed logical then to produce two documents: 1) a short, comprehensive, non-technical document for the general public ("General Park Management Plan" GPMP), and 2) a detailed, technical document for specialists ("Management Plan Detail" MPD).

This document is the General Park Management Plan. All recommendations, both resource management and physical development, are included in this document. Detailed inventory data and specific instructions necessary for implementation of the plan are not included. This information has been compiled into technical appendices, which are available upon request from:

Park Planning
Department of Natural Resources
444 Lafayette
St. Paul, Minnesota 55101



Introduction

OVERVIEW FOR KILEN WOODS STATE PARK

In 1945, the Minnesota Legislature authorized the establishment of a 178 acre (72 hectares) park in Jackson County. It is located 11 mi (17.6 km) south of Windom, 10 mi (16 km) north of Jackson, and 9 mi (14.4 km) northeast of Lakefield along the picturesque Des Moines River Valley. The park was named after Agil Kilen, from whom most of the park land was purchased. Subsequent expansions, 21.6 acres (8.7 hectares) in 1955 and 28.4 acres (11.5 hectares) in 1976 have brought the total authorized acreage to 228 acres (92 hectares). At present the state owns 200 acres (81 hectares), and 28 acres (11 hectares) are in private ownership.

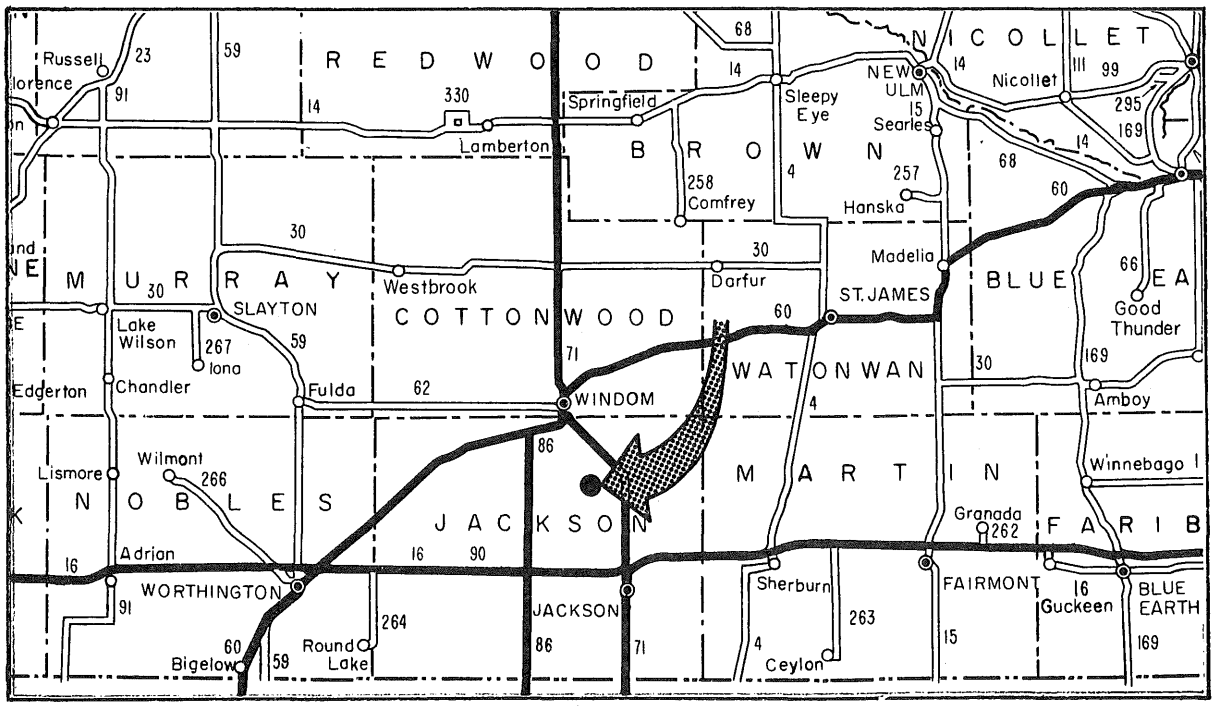
The park can be reached from four major traffic routes: Interstate (I) 90 and Trunk Highways (TH) 71, 60, and 68. These roads provide access from surrounding population centers. (See Location/Vicinity Map, p 9.)

Kilen Woods State Park is located in the Coteau des Prairie (Highland of the Prairies) Biocultural Region, which is an extensive upland plateau that separates the watersheds of the Missouri and Mississippi rivers. The coteau, a small part of which lies in southwest Minnesota, was characteristized in presettlement times as an "endless rolling sea of grass" which stretched from southwest Minnesota to the foothills of the Rocky Mountains.

The source of the west fork of the Des Moines River is Lake Shetek in Murray County. Originally, it flows through a broad, open valley. However, in northern Jackson County it abruptly narrows into a deep and wooded valley. It is along this portion of the river Kilen Woods is located. This unique, deep, wooded valley, cutting through the agricultural heartland of southwestern Minnesota, has been described as "an oasis in the farm belt." This "wooded" oasis remains much as it was in settlement times. The steep bluffs and deep ravines bordering this segment of the Des Moines have protected the woods from the prairie fires that periodically swept through this area. Thus, people were provided with fuel, food, and shelter from the sometimes harsh prairie climate. This same topography has preserved the wooded bluffs and ravines from attempts to cultivate the area, and today it remains available for use as a recreational area of natural beauty in southwestern Minnesota.

The present park is approximately 60% wooded, but it has a 60 acre (24 hectare) prairie area which has been undergoing restoration since 1976. Since prairie restoration work began, a number of rare and endangered species have been identified. Present facilities include 20 campsites, a canoe access/campground, a picnic area, a sliding hill, an observation tower, and hiking, ski touring, and snowmobile trails.

Use of the park has increased steadily since the completion of I 90. Over 17,000 people visited the park during the 1978 season. This was more than double the attendance for 1974.



Location/Vicinity Map

THE PLANNING PROCESS

The unique natural, cultural, and historical resources of Minnesota provide abundant opportunities for outdoor recreation and education. These opportunities should be available to all citizens of Minnesota now and in the future. In order to ensure that future generations will have the opportunity to enjoy these resources, we must plan now to manage, preserve, and provide access to these resources. For this reason the Minnesota Legislature passed the Outdoor Recreation Act of 1975 (ORA '75).

This act mandated that a comprehensive management plan be completed for each of the major units. Through this plan each park will be classified in recognition of its resources and its role in the statewide park system.

This plan sets the long range goals and objectives for resource management and recreational development which are appropriate for the park's classification. The actions that should be taken to move toward fulfilling these goals and objectives are then stated and scheduled.

The planning process consists of five steps:

1. Compilation of an inventory of natural resources and existing facilities. Task forces of specialists from other DNR divisions and sections are mobilized to assist the park planners in the collection of pertinent data. At this point the first public workshop is held.

2. Identification of alternatives for park management and development. A second public workshop is held to review these alternatives and invite further public comment. These alternatives are then reviewed by the Division of Parks and Recreation.

3. Classification of park, development of park goal, and writing draft plan. This step culminates in the first interdepartmental review, followed by a 30 day public review. Within this 30 day period, the third public workshop is held.

4. Revision of the draft plan according to information received from public and interdepartmental reviews. Plan is then sent to the State Planning Agency (SPA) for a 60 day reviewal period.

5. Implementation of development plan by the Division of Parks and Recreation.

SUMMARY

Park expansion has been the major issue in the planning process of Kilen Woods State Park. If the park is not expanded, it may be turned over to a local unit of government to function as a county or regional park. If this is not possible, the remaining option is disposal of the park. This can be done two ways: through classification as a wildlife management area and water access site, or outright sale. The park's present small size precludes management as a state park.

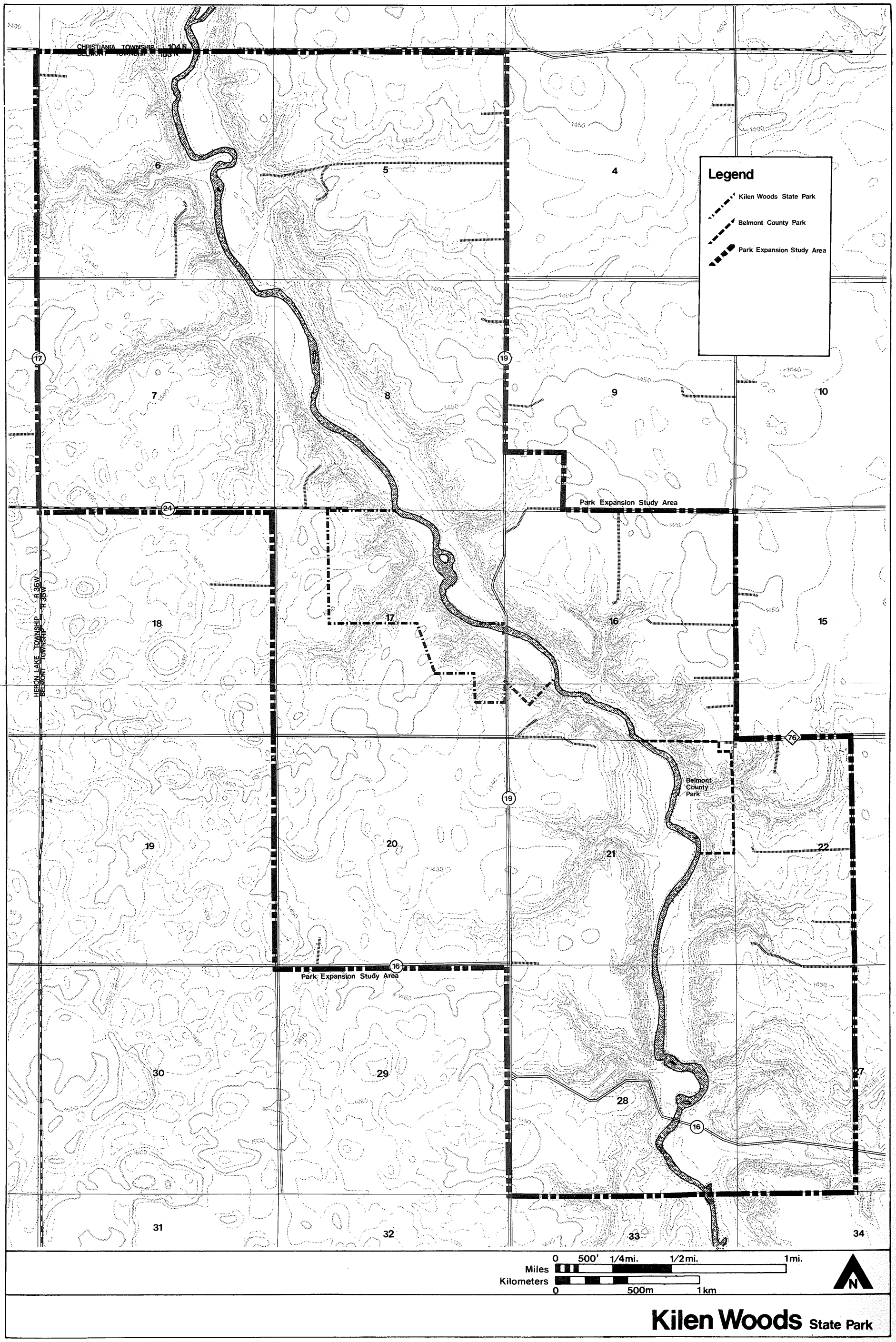
If expanded, it will be recommended for classification as a recreational state park with potential scientific and natural area subunits.

Vegetation management will be directed toward restoration and/or perpetuation of northern hardwoods, fens, mesic and dry prairie, oak woods, oak savanna, and bottomland hardwoods.

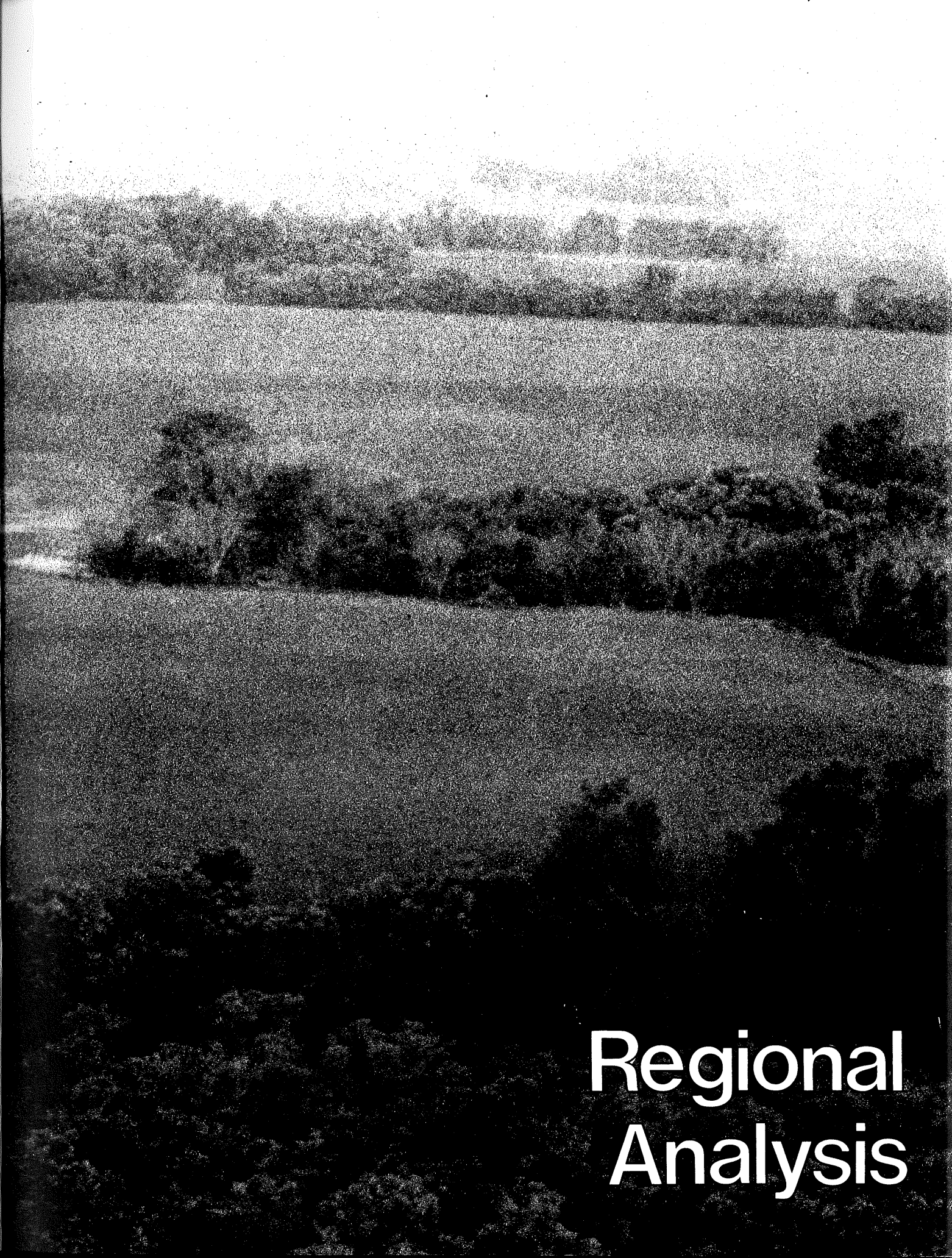
Wildlife management will maintain and/or reestablish, when feasible, those species present in the park prior to European settlement. Wildlife foodplots will be retained. They will be maintained through contractual agreements with neighboring farmers. Limited public hunting on a permit basis may be used to keep the deer population down to the carrying capacity of the park.

Major recreational facility development will include: a contact station/park office; 12-15 family campsites; 6 walk-in campsites; a group camp; an interpretive center; a service area and manager's residence; and an extensive multi-use trail system.

A major proposal of this management plan is to realign the statutory boundary to include only state owned land. This identifies park quality land surrounding the park. The Division of Parks and Recreation will ask the legislature for authority to negotiate with willing sellers for the purchase of up to 660 acres (267 hectares) of this land. This will be done prior to the establishment of the new expanded park boundary.



Kilen Woods State Park



Regional Analysis

STATE PARK ROLE ANALYSIS

In order to determine a park's potential role in perpetuating natural resources and fulfilling recreational needs, a state park analysis process has been initiated. The analysis is designed to look at a given park's interrelationship with:

the state park system

the biocultural region system

state park use patterns

regional influence/impact factors

Recognition of a state park's interrelationship with these components will help to ensure that park development will be planned to protect natural and historic resources, meet appropriate recreational demands, and avoid undue competition with other recreation providers.

The State Park System

Minnesotan's traditionally have had a great appreciation for nature. The state has honored this tradition by setting aside recreational lands which exemplify the state's outstanding natural and scenic resources. It is the management goal for all state recreational lands (of which the state park system is a part) to protect and perpetuate these resources for use and enjoyment by the citizens of Minnesota.

There is a delicate balance which must be maintained when recreational facilities are provided for large numbers of people in areas of outstanding, often sensitive resources. Generally, certain resources are best suited for particular types of recreation. To help ensure this recreation/resource balance, the Minnesota State Legislature outlined in the Outdoor Recreation Act of 1975 (ORA '75) the components which comprise all state recreational lands. These components are: historic sites; state forests; water access sites; rest areas; state trails; wildlife management areas; scientific and natural areas; wild, scenic, and recreational rivers; wilderness areas; and state

parks. Included in this legislation is a classification system which identifies general criteria for planning and management direction. The two primary classifications for state parks are natural or recreational.

A natural state park classification places primary emphasis on perpetuation of the natural resources. Recreational state park classification, while not allowing major disruption of the natural resources, focuses on providing a variety of recreational facilities for large numbers of people. This classification determines each park's role as a unit in the statewide park system. (See Classification Section, p 24 , for further discussion.)

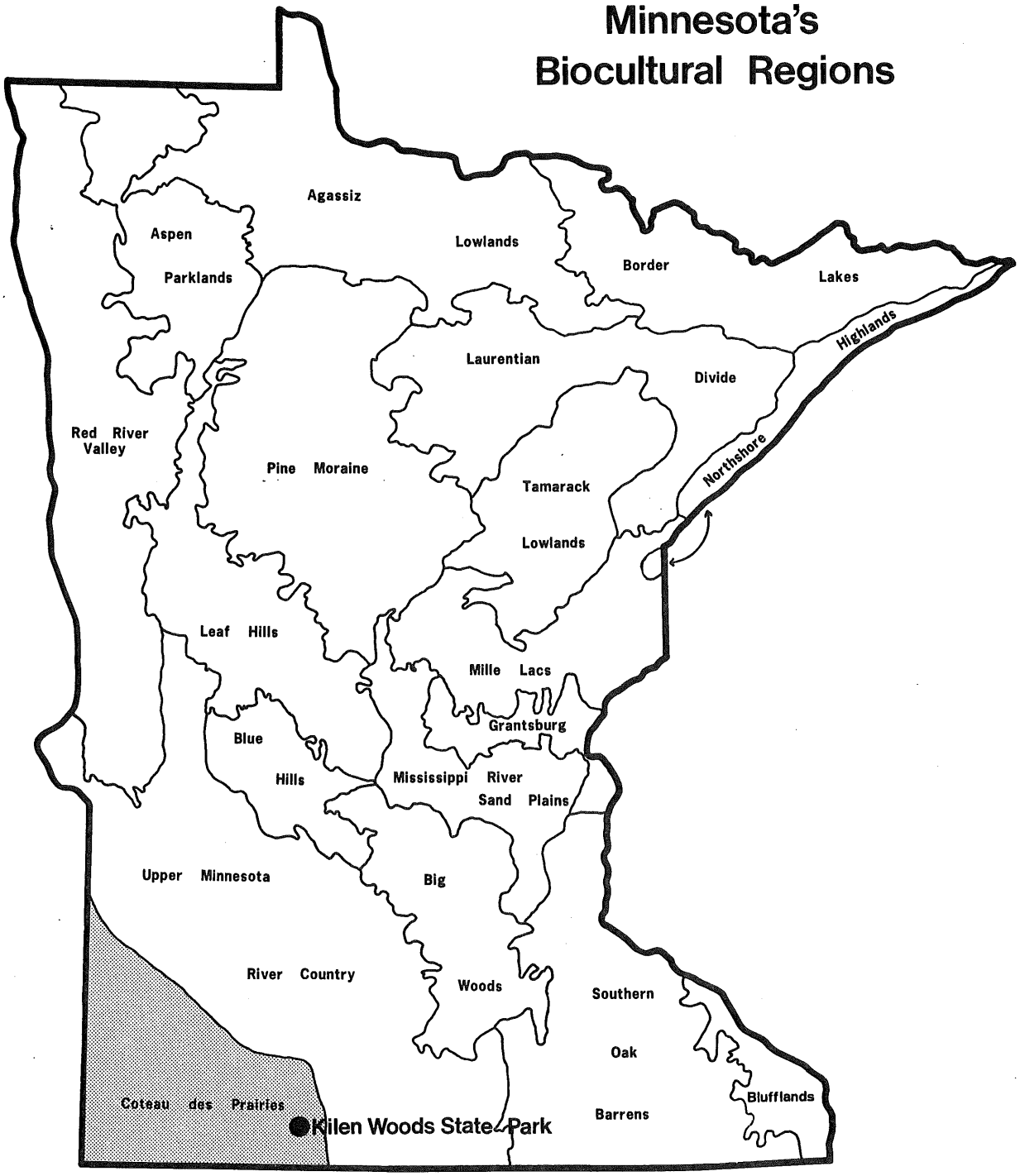
Biocultural Region System

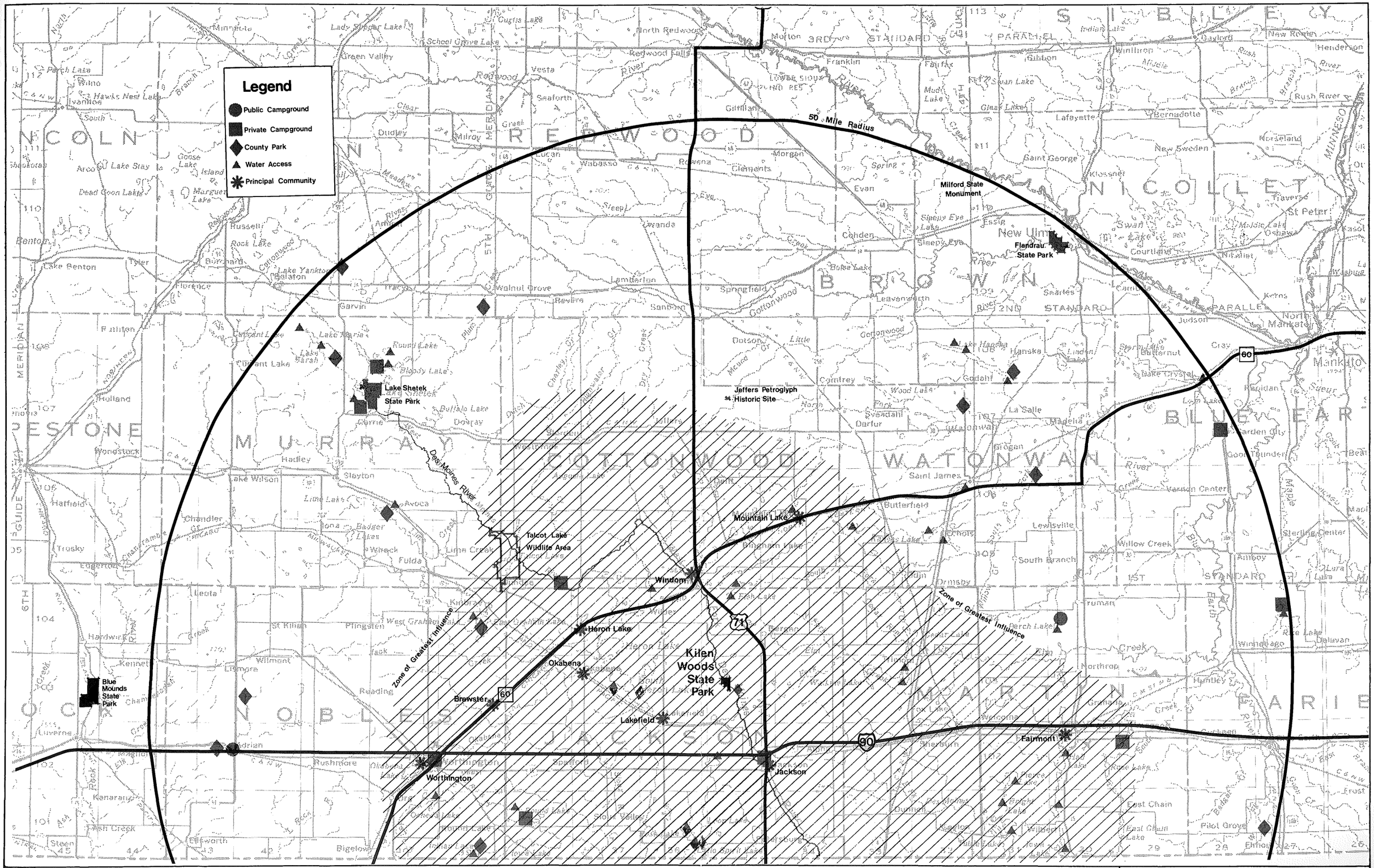
The biocultural region system divides the state into 18 regions. These regions are differentiated according to the characteristic vegetation, animal life, landforms, and cultural patterns which existed before, during, and after European settlement. Because state parks tend to be some of the most outstanding, scenic lands in the state, they tend to reflect the quality and diversity of the biocultural regions. The biocultural region system is a framework which provides valuable biological and cultural information useful in the planning of Minnesota's state parks.

Kilen Woods is located in the Coteau des Prairie Biocultural Region. This region is characterized by vast dry and wet prairie vegetation. To accommodate row crop agriculture, native vegetation was plowed under in virtually all of this region, including sections of Kilen Woods. Most of the remaining native prairie on park land that was not cultivated was massively altered by heavy grazing and/or the invasion of non-native plant species. For this reason, the Kilen Woods State Park Management Plan will propose reintroducing native grass and forbe species to the park.

State Park Use Patterns

State park users are often classified into two types -- destination and non-destination users. A comparison of the differences and simularities of these groups will help to clarify the park's role in providing resource oriented recreational opportunities.


Minnesota's
Biocultural Regions
Agassiz
Lowlands
Aspen
Parklands
Border
Lakes
Highlands
Laurentian
Divide
Red River
Valley
Pine Moraine
Tamarack
Lowlands
Northshore
Leaf Hills
Mille Lacs
Grantsburg
Blue
Hills
Mississippi River
Sand Plains
Upper Minnesota
Big
River Country
Woods
Southern
Oak
Barrens
Blufflands
Coteau des Prairies
Kilen Woods State Park



Kilen Woods State Park | Regional Analysis

The Kilen Woods park manager estimates that the majority of Kilen Woods day users come to the park to picnic and hike and 90% of these picnickers come from within 50 mi (80 km) of the park. This clearly demonstrates the park's resource and recreational attractiveness to local residents.

The manager also estimates that the majority of overnight visitors in Kilen Woods use the park as a stop over point on route to a principle destination. Its close proximity to I 90 establishes the park as a convenient and desirable camping facility for travelers. The park's clean, safe, and well maintained facilities, as well as its diversified resource and recreational offerings, help to create a positive impression of Minnesota's state park system.

Regional Influence/Impact Factors

Recreation patterns in the region surrounding a state park must be analyzed in order to plan a park. The basis of this analysis is the relationship between a particular facility and the expectation of the user. The user will visit a state park because of: natural resources, location, facilities, and the experience sought.

The manager estimates that the influence zone shown on the Regional Analysis Map, M 2 , best illustrates communities most likely to frequent Kilen Woods on a regular basis. In addition, the influence zone highlights area recreational facilities which may complement and/or benefit from park facilities and services.

NOTE: Though not illustrated on the Regional Analysis Map, M 2 the influence zone should include communities such as Spirit Lake, Esterville, and Milford in northern Iowa.

Kilen Woods State Park is a protected land resource of recreational importance to southwestern Minnesota. Present and projected demand for recreational facilities point to this importance. From 1974 to 1978, total visitor attendance figures for Kilen Woods more than doubled.

The activities which have shown consistent increases in participation are hiking, picnicking, canoeing, camping, and ski touring. The pursuit of these activities, coupled with the natural resources of Kilen Woods and adjoining Des Moines River, make this area a significant destination for outdoor recreators. Kilen Woods is an important resource and recreational oasis for a primarily agricultural area.

Recreational facilities within a park's zone may duplicate services. However, some people will consistently choose to frequent one area over another in the pursuit of a particular experience. For example, state parks provide camping facilities. Municipal and county parks located within the vicinity of a state park may also have campsites. However, some people will consistently travel to the state park because of the type of experience it offers, namely, camping in a natural setting augmented by other recreational opportunities such as hiking and wildlife observation. Camping facilities may be duplicated elsewhere, but the total activity experience is not.

This interrelationship of activity demand and facility supply to experience is an integral part of the regional analysis process. The connection can best be analyzed according to the recreational activities available in a park, the experiences people seek by participating in these activities, and the identification of complementing facilities in the area.

On the following chart, activities and experiences in Kilen Woods are analyzed on the left and influence zone complementing facilities located outside the park are analyzed on the right.

Activity/Experience	Complementing Facilities
Camping	
There are 20 semi-modern campsites in Kilen Woods. The park's proximity to I-90 establishes it as a convenient and desirable stop over for non-destination campers. Destination campers have indicated their preference to camp at Kilen Woods because of the facility's cleanliness, the beauty and diversity of its resources, its solitude, and its convenient location.	Approximately 10 primitive and 309 modern campsites are available in private, county, and municipal camping facilities in the Kilen Woods influence zone. However, the unique camping/activity experience of the park is not duplicated.
Picnicking	
Eighty seven percent of the state's population picnic at least once a year. The park manager estimates that the majority of weekend day users at Kilen Woods are picnickers. People enjoy picnicking at the park because the activity is complemented by the scenic environment and other outdoor pursuits such as wildlife observation, hiking, and interpretive programs.	Although there are many other picnic areas in the park influence zone the combined picnic/activity experience of Kilen Woods is not duplicated elsewhere.

Hiking

Kilen Woods offers the only extensive hiking trail system in the influence zone. Visitors enjoy experiencing the variety of prairie vegetational types, geological landforms, and wildlife. Hiking is one of the major activities in the park.

Other than a hiking trail in Belmont County Park south of Kilen Woods, opportunities for hiking in a natural setting in the park's influence zone are limited.

Ski Touring

The popularity of ski touring has grown rapidly in recent years. Skiers come to Kilen Woods because of the varied and scenic terrain, visibility of wildlife, and the lack of other groomed and marked ski touring trails in the area. Because of the recreational demand and lack of a regional ski touring trail system, development of ski trails has been singled out as a priority in Kilen Woods.

No other recreational facilities in the area have ski touring trails at this time.

Snowmobiling

Snowmobiling in the Kilen Woods influence zone is a popular activity. The park snowmobile trail provides snowmobilers with a short scenic ride.

Other than the river and a few miles of trails in Kilen Woods, opportunities for snowmobiling in the influence zone are limited to road ditches and open fields.

Interpretation

The function of the Kilen Woods interpretive program is to orient visitors to park facilities and resources and to display interpretive exhibits. The interpretive program in the park is run by a volunteer naturalist. It is a popular activity for park users.

Kilen Woods has the only interpretive program in the park influence zone.

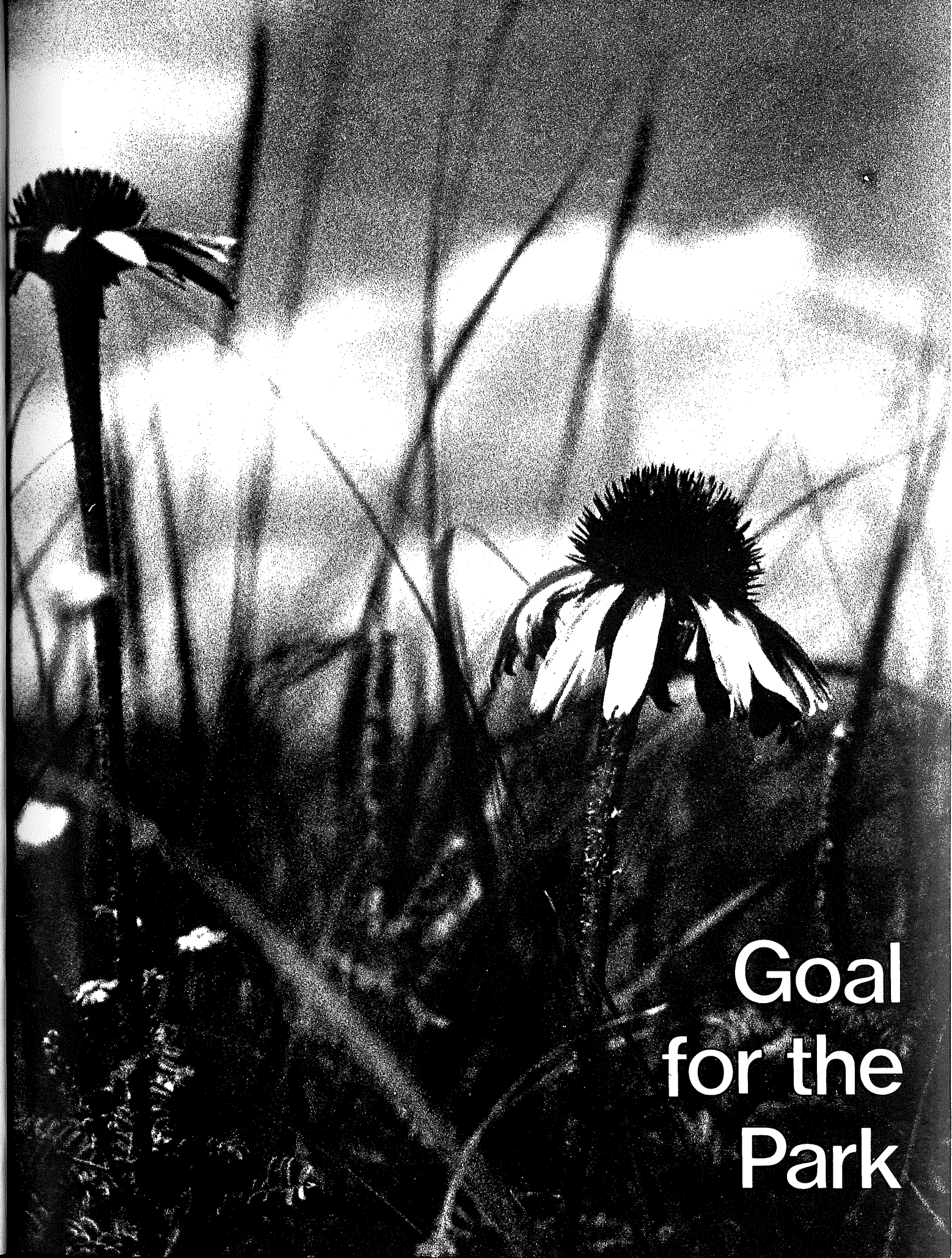
Canoeing

Kilen Woods offers canoers access to the Des Moines River, one of the few canoeable rivers in this part of the state. The river winds through scenic topography abundant with wildlife. The park - midway between Windom and Jackson - is a popular stop over for canoers. For shorter trips, the park serves as an exit point for canoers from Windom and an entry point for canoers traveling to Jackson.

The park's access, camping, and picnicking facilities combine to offer canoers and experience not duplicated either in the influence zone or anywhere along the Des Moines River.

Organized Groups/Special Events

Kilen Woods provides resource oriented recreational opportunities not often found in the influence zone. Scouts, church groups, community organizations, 4-H clubs, garden clubs, the Windom Environmental Education Center, senior citizen groups, summer schools, and kindergarten and grade school classes are among the organized groups which consistently use the park for recreational activities. The Windom Home for Creative Living and the Worthington Crippled Children's Hospital are among the organized groups who use Kilen Woods for special events.



Goal for the Park

CLASSIFICATION

Purpose

The purpose of the classification process as stated in ORA '75 is to establish "an outdoor recreation system which will (1) preserve an accurate representation of Minnesota's natural and historical heritage for public understanding and enjoyment and (2) provide an adequate supply of scenic, accessible, and usable lands and waters to accommodate the outdoor recreational needs of Minnesota's citizens."

Since classification determines management direction, each park must be classified before any development recommendations can be made.

Process

In accordance with the ORA '75, the park planning staff has reviewed the classification of each park under study this biennium. After the park resource inventory was completed for each unit, the planning staff determined:

A. Which of the 11 classifications from ORA '75 was most appropriate for the unit.
B. Whether sub-units should be considered to deal with special areas within the unit (scientific and natural areas or other sub-units authorized in ORA '75).
C. Whether administration of the unit should be reassigned to other governmental bodies (other state agencies, county, or local governments).

The major factors considered in the classification of a park are the natural resources. Each park is managed and developed according to the nature of those resources and their ability to tolerate visitor use.

Alternative Designations

Kilen Woods State Park has the potential to fit any one of five classifications designated by the ORA '75 -- natural state park, recreational state park, scientific and natural area, wildlife

management area, or water access site. Kilen Woods could also be designated a regional park, county park, or regional environmental education center.

The objective of classifying state parks is to determine the most suitable management direction for a given unit, based on its natural resources and recreational potential. Of primary concern in setting management direction is the protection and perpetuation of those natural resources which set a particular park apart from all other parks. Also of concern is the need for a statewide recreation system which will meet the recreational needs of our society without unduly harming the natural resources.

Kilen Woods will be evaluated for classification as a natural or recreational state park, a scientific and natural area, a wildlife management area, or a water access site, based on its current size. It will also be evaluated for classification as a recreational or natural state park contingent on the proposed expansion discussed on pp 89 - 108.

• Existing Park

The extent to which Kilen Woods, at its present size, meets the ORA '75 criteria for a natural or recreational state park, scientific and natural area, wildlife management area, or water access site, is summarized below.

ORA Criteria - Natural State Park

1. "Exemplifies the natural characteristics of the major landscape regions of the state, as shown by accepted classification, in an essentially unspoiled or restored condition or in a condition that will permit restoration in the foreseeable future; or contains essentially unspoiled natural resources of sufficient extent and importance to meaningfully contribute to the broad illustration of the state's natural phenomena."

The park contains only a small portion of the diverse natural resources that characterize the Des Moines River valley, a unique feature of the Coteau des Prairie Biocultural Region. The park's limited size prevents the user from feeling the vastness which typified the prairie coteau. Existing private ownership along the valley precludes the restoration of the impacted natural resources in the area. It also denies the public the opportunity to gain access to these resources.

2. "Contains natural resources sufficiently diverse to attract people from throughout the state."

The park's small size limits resource diversity. However, its convenient location makes it a popular stop over for non-destination visitors.

3. "Is sufficiently large to permit protection of the plant and animal life and other natural resources which give the park its qualities and provide for a broad range of opportunities for human enjoyment of the qualities."

In the 30 years since Kilen Woods was opened to the public, the park has been developed to its maximum potential. The park's small size simply will not permit any substantial increase in use without damaging the resources.

ORA Criteria - Recreational State Park

1. "Contains natural or artificial resources which provide outstanding outdoor recreational opportunities that will attract visitors from beyond the local area."

The natural scenic outlines of the Des Moines River valley can provide outstanding outdoor recreational opportunities for some citizens. However, the limited public ownership in Kilen Woods State Park does not provide adequate access to the area or allow development of facilities to attract visitors from beyond the local area.

2. "Contains resources which permit intensive recreational use by large numbers of people."

Much of the Des Moines River valley contains resources which can be used by large numbers of people without significant damage. However, the existing park cannot handle an increase in use without sustaining resource damage.

3. "May be located in areas which have serious deficiencies in public outdoor recreation facilities, provided that recreational state parks should not be provided in lieu of municipal county, or regional facilities."

The area surrounding the park has a serious deficiency in public outdoor recreational facilities of all types (as documented in the State Recreational Outdoor Recreation Plan (SCORP) and the Region 8 Comprehensive Plan.)

ORA Criteria - Scientific and Natural Area (SNA)

Subd. 5. State scientific and natural areas; purpose; resource and site qualifications; administration; designation. (a) A state scientific and natural area shall be established to protect and perpetuate in an undisturbed natural state those natural features which possess exceptional scientific or educational value. (b) No unit shall be authorized as a scientific and natural area unless its proposed location substantially satisfies the following criteria:

1. Embraces natural features of exceptional scientific and educational value, including but not limited to any of the following:

   (i) natural formations or features which significantly illustrate geological processes;
   (ii) significant fossil evidence of the development of life on earth;
   (iii) an undisturbed plant community maintaining itself under prevailing natural conditions typical of Minnesota;
   (iv) an ecological community significantly illustrating the process of succession and restoration to natural condition following disruptive change;
   (v) a habitat supporting a vanishing, rare, endangered, or restricted species of plant and animal;

(vi) a seasonal haven for concentrations of birds and animals, or a vantage point for observing concentrated populations, such as a constricted migration route.

2. Embraces an area large enough to permit effective research or educational functions and to preserve the inherent natural values of the area.

Portions of the present park, areas 1-3 on the Potential Scientific and Natural Areas Map and the chart below fulfill scientific and natural area criteria 1(iv), 1(v), and 2, qualifying them as potential scientific and natural areas.

SNA Potentials for Kilen Woods

Map Code, M 3

1	River-bottom open prairie.
2	Fen area - location of endangered prairie bush clover habitat.*
3	Unique situation on north and east facing slope of the valley that has river bottom hardwoods all the way to the bluffline, probably from being cold and wet most of the time and not burning with the prairie fens.
4	Excellent representation of oak savanna "fingers" reaching out into the prairie from top and bottom and forming beautiful prairie knolls and overlooks.
4a	An unusual situation of prairie on north side and oak savanna on south side of ravine.
5	Last remaining type III wet land in the area.
6	Best example of unplowed virgin flat ground prairie in the area.
7	Rare oak woods on flat ground above the bluffline (normally prairie type) with solid bur oak in a very dense stand. Probably the result of less frequent burns than in the oak savanna.
8	Best example of a transition from rolling prairie to oak savanna in the area.

*The prairie bush clover is listed by DNR in "The Uncommon Ones, 1975" as rare and possibly endangered in Minnesota.

M 3

Lake Independence

CHRISTIANA TOWNSHIP 104 N
BELMONT TOWNSHIP 103 N

Des Moines River

Legend

See chart, p 28

Park Expansion Study Area

HERON LAKE TOWNSHIP R 36W
BELMONT TOWNSHIP R 35W

Belmont County Park

Des Moines River

Park Expansion Study Area

Boot Lake

Miles 0 500' 1/4mi. 1/2mi. 1mi.
Kilometers 0 500m 1km

Kilen Woods State Park

Potential SNA

The following paragraph from the ORA '75 discusses the administration and uses of the proposed scientific and natural area.

> (c) State scientific and natural areas shall be administered by the commissioner of natural resources, in consultation with qualified persons, in a manner which is consistent with the purposes of this subdivision to preserve, perpetuate, and protect from unnatural influences the scientific and educational resources within them. Interpretive studies may be provided for the general public. Physical development shall be limited to the facilities absolutely necessary for protection, research, and educational projects, and where appropriate, for interpretive services. An area designated as a state scientific and natural area shall not be altered in designation or use without holding a public hearing on the matter at a time and place designated in the notice of the hearing, which shall be published once in a legal newspaper in each county in which the lands are situated at least seven days in advance of the hearing. At the hearing the commissioner shall provide an opportunity for any person to be heard.

The amount of development referred to in the underlined portion of the ORA '75 criterion has been exceeded because of its previous designation as a state park.

Managing and maintaining these facilities is beyond the scope and budget of the scientific and natural area program.

ORA Criteria - Wildlife Management Area

> Subd. 8. State wildlife management area; purpose; resource and site qualifications; administration. (a) A state wildlife management area shall be established to protect those lands and waters which have a high potential for wildlife production and to develop and manage these lands and waters for the production of wildlife, for public hunting, fishing, and trapping, and for other compatible outdoor recreational uses.

(b) No unit shall be authorized as a state wildlife management area unless its proposed location substantially satisfies the following criteria:

(1) Includes appropriate wildlife lands and habitat, including but not limited to marsh or wetlands and the margins thereof, ponds, lakes, stream bottomlands, and uplands, which permit the propagation and management of a substantial population of the desired wildlife species; and...

The park contains both stream bottomland and upland habitat, which presently provide a deer yarding area and would potentially permit the propagation and management of substantial populations of additional desired wildlife species.

...(2) Includes an area large enough to ensure adequate wildlife management and regulation of the permitted recreational uses.

A 228 acre (92 hectare) area would be large enough to ensure adequate wildlife management and regulation of permitted recreational uses such as public hunting, fishing, and trapping.

The following paragraph from the ORA '75 discusses the administration and uses of the proposed wildlife management area.

(c) State wildlife management areas shall be administered by the commissioner of natural resources in a manner which is consistent with the purposes of this subdivision to perpetuate, and if necessary, reestablish quality wildlife habitat for maximum production of a variety of wildlife species. Public hunting, fishing, trapping, and other uses shall be consistent with the limitations of the resource, including the need to preserve an adequate brood stock and prevent long term habitat injury or excessive wildlife population reduction or increase. Physical development may provide access to the area, but shall be so developed to minimize intrusion on the natural environment.

The amount of development referred to in the underlined portion of the ORA '75 criteria has been exceeded because of its previous designation as a state park.

Managing and maintaining these facilities is beyond the legislative intent of the wildlife management area classification.

ORA Criteria - Water Access Site

> "The body of water to which access is being provided and surrounding lands can withstand recreational use without undue damage to the environment or undue risks to the health and safety of water uses."

There would be no detrimental effects to the Des Moines River if Kilen Woods is maintained as a water access site.

> "Public access to the body of water is either non-existent or inadequate."

This is one of only three potential canoe entry/exit points between Windom and Jackson on the Des Moines River. The park is located approximately half way between the two communities. This makes it an ideal location for a water access site.

Evaluation of Alternatives

At its present size of 228 acres (92 hectares), the existing park does not adequately exemplify the natural characteristics of the Coteau des Prairie Biocultural Region in which it is located. It is not diverse or large enough to attract and permit intensive use by large numbers of people from throughout the state, while still protecting the natural resources.

The acreage necessary to meet the water access site or scientific and natural area criteria is only a fraction of the existing park acreage. In addition, the park has recreational facilities developed beyond that which is needed or desirable for a scientific and natural area, wildlife management area, or water access site. Also, the supervision and

maintenance required for these facilities is beyond the legislative intent and budgets of the scientific and natural area, wildlife management area, or water access site programs.

Recommendation

It is, therefore, recommended that if Kilen Woods State Park is not expanded to meet the natural or recreational state park criteria, the present park and its major facilities should be turned over to a local unit of government (region or county). In this event, the DNR should be allowed to acquire administrative control of the potential scientific and natural area sites 1-3 (map, M 3) and retain the present canoe campsite as a water access site for the Des Moines River canoe route, (see Existing Development Map, M 9).

• Proposed Park Expansion

As discussed in the Evaluation of Alternatives, p 31 , the present park is too small to qualify as a state park. However, the Des Moines River valley is one of the few remaining natural areas in southwest Minnesota. With the acquisition of adjacent lands, this park will be an outstanding example of the Coteau des Prairie Biocultural Region. Use of Kilen Woods State Park has increased since 1975. SCORP '74 and the Region 8 Comprehensive Plan have documented a lack of outdoor recreational facilities in southwestern Minnesota. However, the park at present does not meet ORA '75 state park criteria. The increased use, lack of area facilities, and non-compliance with the ORA '75 criteria necessitate expansion of the park.

The extent to which Kilen Woods, if expanded, would meet the criteria as defined by the ORA '75 for natural and recreational state parks is summarized below.

ORA Criteria - Natural State Park

1. "Exemplifies the natural characteristics of the major landscape regions of the state, as shown by accepted classifications, in an essentially unspoiled or restored condition or in a condition that

will permit restoration in the foreseeable future; or contains essentially unspoiled natural resources of sufficient extent and importance to meaningfully contribute to the broad illustration of the state's natural phenomena."

Kilen Woods, expanded to include more of the Des Moines River valley, would exemplify the typical (rolling prairie) and atypical (deep, wooded river valley) topographical and vegetational characteristics of the Coteau des Prairie Biocultural Region. Any proposed expansion will be in a restorable condition. An expanded park will also allow the vastness of the southwestern prairie to be illustrated through the "coteau illusion."

The "coteau illusion" refers to using the imagination, through landforms and interpretive techniques to illustrate the vastness of the prairie coteau as it once was.

2. "Contains natural resources sufficiently diverse to attract people from throughout the state."

An expanded and restored Kilen Woods State Park could potentially attract people from throughout the state because of:

its uniqueness in southwestern Minnesota;
the natural scenic beauty of the Des Moines River valley;
the diverse plant communities;
the increasing demand for park facilities in the area (attendance has doubled in the past four years), and;
the public's increased awareness and appreciation of the prairie ecosystem.

3. "Is sufficiently large to permit protection of the plant and animal life and other natural resources which give the park its qualities and provide for a broad range of opportunities for human enjoyment of the qualities."

Expansion of the park will allow this criterion to be met. In order to exemplify the Coteau des Prairie Biocultural Region, a substantial increase in the present park size would be required (see the Park

Boundary Section, pp 89-108). This would also be necessary to allow the restoration of the six major vegetational communities that are associated with both the typical and atypical aspects of the coteau. An expanded park would also allow a broader range of recreational facility development and a wider dispersion of users, minimizing impacts on the resources.

ORA Criteria - Recreational State Park

1. "Contains natural or artificial resources which provide outstanding outdoor recreational opportunities that will attract visitors from beyond the local area."

The natural scenic qualities of the Des Moines River valley and the opportunities for additional recreational facility development that would be available with park expansion would provide outstanding outdoor recreational opportunities (see the Park Boundary Section, pp 89- 108.) Increased public awareness of the expanded and improved facilities and services would attract visitors from beyond the local area.

2. "Contains resources which permit intensive recreational use by large numbers of people."

With expansion, Kilen Woods State Park would contain resources which could be used by large numbers of people without damage or disruption of the resources. Because of the increased size of the park, development in areas with sensitive resources could be avoided.

3. "May be located in areas which have serious deficiencies in public outdoor recreation facilities, provided that recreational state parks should not be provided in lieu of municipal, county, or regional facilities."

The area surrounding the park has a serious deficiency in public outdoor recreational facilities of all types, as documented in the SCORP '74 and the Region 8 Comprehensive Plan.

If expanded, Kilen Woods State Park will comply with either the natural or recreational state park classification. The size of the expansion will be the determining factor in the classification decision.

The principal criterion for a natural state park classification requires the park to exemplify the biocultural region. For Kilen Woods, this would require an expansion of at least 1,700 acres (690 hectares) to encompass the vegetational diversity and area necessary to provide the illusion of the once vast prairie coteau.

The criteria for a recreational state park are less specific and do not require that the park exemplify the biocultural region. It must "contain resources which provide recreational opportunities that will attract visitors from beyond the local area," and "contain resources which permit intensive recreational use by large numbers of people." These criteria can be satisfied with an expansion of approximately 660 acres (240 hectares).

Previous drafts of the Kilen Woods management plan recommended that Kilen Woods be expanded up to 1,700 acres (690 hectares) to qualify as a natural state park. The natural state park classification was chosen because it provides the greatest potential for future management to protect, restore, and perpetuate a major portion of an outstanding natural resource in southwestern Minnesota. This classification would allow the development of recreational facilities in a region of the state that is presently deficient in outdoor recreational facilities.

Landowners affected by the expansion were strongly opposed to the proposal. They expressed the fear that it would have a detrimental economic impact on them and their community. They maintained the existing park is adequate and should remain as is.

Recommended Classification

It is recommended that Kilen Woods State Park be expanded by about 660 acres (267 hectares) to comply with recreational state park criteria (see Boundary Expansion, p 89). If future conditions merit, a review may be conducted to determine if further expansion is warranted to qualify as a natural state park.

This proposal greatly reduces the area affected by park expansion and will allow Kilen Woods to remain in the state park system.

Potential Scientific and Natural Area Subunits

The Potential Scientific and Natural Area Map, M 3 and chart, p 28 illustrate eight areas that the SNA committee determined to be potential sites within the Kilen Woods expansion study area.

The present park contains a potential SNA site (#1) and portions of two other sites (#2 and #3). In addition, a 22 acre (8.8 hectare) tract of virgin prairie (#6) lies adjacent to the boundary and is presently undergoing detailed evaluation as an SNA. It is recommended that the park expansion include these areas.

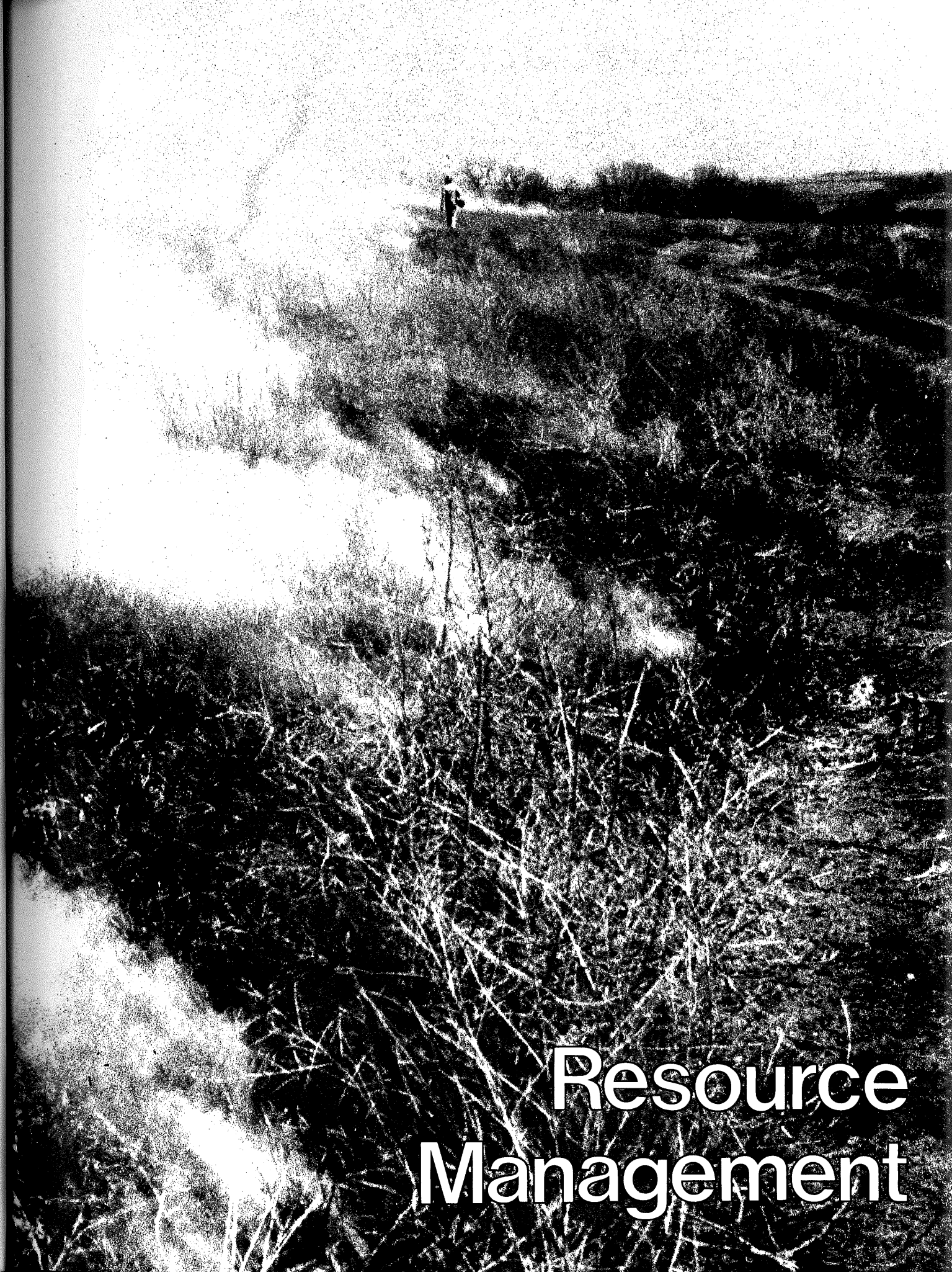
Potential SNA's that qualify for preservation and fall within the proposed park expansion should be so designated only if a recreational state park classification does not afford them adequate protection. Potential SNA's that lie outside the proposed park expansion should receive continued evaluation by the SNA committee for possible future designation.

PARK GOALS

To restore and protect a segment of the Coteau des Prairie Biocultural Region

To provide interpretive programs and recreational activities that emphasize the various natural and cultural aspects of the Coteau des Prairie Biocultural Region

To document the natural history of southwestern Minnesota and provide people with a chance to escape their everyday surroundings, relax, and obtain a new perspective on their natural environment.



Resource Management

RESOURCE MANAGEMENT OBJECTIVES

The following general objectives are designed to give direction to the management of all the park's resoruces. In order to ensure consistent management throughout the state park system, comprehensive objectives have been formulated for all recreational state parks.

They are:

To maintain or reestablish plant and animal life which represent pre-European settlement biotic communities

To utilize resource management techniques that will harmonize with the park's natural systems

ELEVATION AND SLOPE

The bluff tops of the Des Moines River valley in Kilen Woods State Park lie 100-150 ft (30-45 m) above the river. These bluffs offer an outstanding scenic view. The dramatic change in elevation from the surrounding flat prairie land makes Kilen Woods unique in southwestern Minnesota.

The slopes associated with these elevation changes play a vital role in the planning of the park. Slope has directly affected the proposed boundary placement and is a primary factor in developing visitor access, park circulation, and trail and facility location. Slope and slope orientation can also be employed to provide optimum siting for energy efficient structures (see Microclimate, p 41). Trails which take full advantage of varied terrain provide the most exciting hiking experience. They must, however, be carefully constructed to avoid erosion.

The Slope Map, M 4 , will aid in the management of park facilities. It illustrates slopes of 12% or above. These slopes are unsuitable for all development except trails.

M 4

Lake Independence

CHRISTIANA TOWNSHIP
BELMONT TOWNSHIP

Des Moines River

Legend

12+% Slope

Park Expansion Study Area

Park Expansion Study Area

Boot Lake

HERON LAKE TOWNSHIP
BELMONT TOWNSHIP

0 500' 1/4mi. 1/2mi. 1mi.
Miles
Kilometers
0 500m 1km

N

Kilen Woods State Park

Slope

CLIMATE

The Coteau des Prairie is within the Prairie Climatic Region of Minnesota. The yearly average temperature over most of the region is 44°F (6.6°C). Extremes may reach 100°F (38°C) and –40°F (–40°C) in winter. Precipitation varies throughout the area, but is generally low compared to other areas of the midwest. Annual precipitation averages24-28 in. (60-70 cm). Snowfall depth averages 40 in. (100 cm) but, in record years, has reached 68 in. (170 cm). An important influence on the area is a dynamic low pressure trough which often forms over eastern South Dakota. This pressure center causes frequent strong southerly winds to blow across the region. As is typical of all prairie areas of the midwest, the area experiences occasional serious droughts, (Rowan, 1976).

Microclimate

Due to its vegetation and terrain, Kilen Woods has microclimate areas which differ greatly from the surrounding area. The deep ravines provide protection from the wind. Dramatic differences in temperatures can occur between north and south facing slopes year-round because of their orientation to the sun and wind. Vegetation is the most visible indicator of these climatic differences. Prairie and oak savanna exist primarily on south facing slopes which are open and warm. River bottom hardwoods can be found outside the floodplain on northerly facing slopes which remain shady, cool, and moist through the warmer months of the year.

The combined microclimatic effects of terrain and vegetation massing in the park should be considered in order to provide the best site location and orientation for recreational facilities.

GEOLOGY AND MINERAL RESOURCES

The Des Moines lobe of the Wisconsin glacial stage formed southwestern Minnesota. It carried billions of tons of glacial drift as it advanced over the coteau, which was in pre-glacial times a

sedimentary bedrock plateau. As it retreated, it deposited several hundred feet of till in the form of two large moraines: the Bemis, west of Lakefield near Brewster, and the Altamont, east of Lakefield. These and other minor moraines in the area lie in a southeast/northwest orientation. Between these two moraines, the tremendous erosive power of the meltwater from the retreating glacier carved the valley through which the Des Moines River now flows. Due to the deep deposits of glacial till, there are no rock outcrops along the river in the area surrounding Kilen Woods.

The DNR, Division of Minerals, has conducted an analysis of the mineral potential for Kilen Woods State Park. Their findings indicate that there is a fair to good potential for the presence of uranium and a fair to low potential for the presence of gold. It must be emphasized that this by no means suggests these minerals are present. It only recognizes the possibility of their presence due to the location of certain rock types which commonly contain or are located near metallic mineral deposits.

Sources.

Sims, P. K., and Morey, G. B., Eds. 1972. Geology of Minnesota, A Centennial Volume. St. Paul: Minnesota Geological Survey.

SOILS

Inventory

The soil types found in Kilen Woods were developed from glacial till. The original till has been modified through the centuries by vegetation and water.

Most of the existing soils were developed under prairie conditions. A small number of soil types were formed in alluvium on the river bottomlands.

Analysis

The Soil Conservation Service (SCS) has established recommended limitations for development based on the suitability of soils. Each soil type has been rated good, fair, or poor for specific development. These stated limitations are one of several factors which must be taken into consideration when a site is selected for a particular facility.

These soil limitations are meant to be guidelines for development location, rather than absolute criteria. Even when there are severe limitations to development, site specific design and technology can usually overcome the restrictions defined by soil suitability. However, all efforts will be made to work with the land and its limitations in siting future facilities.

The Soils Map and Limitations Charts are included in the Management Plan Details. See Note on p vi on the availability of this document.

Management

Objectives:

To eliminate any existing erosion or compaction problems

To protect soils from erosion

To locate development on soils that are suitable for the intended use

To identify limitations which affect proposed developments so that these limitations can be compensated for in site designs

Action #1. Complete the soils inventory and soils suitability.

Soils mapping of the park is incomplete (as of March, 1979). The SCS is beginning its second year of surveying and mapping Jackson County. In the next two years, all of the information necessary to complete the park soils maps should be available.

Cost. None

Action #2. Carry out site-specific soil tests on all sites under consideration for recreational development.

The soils survey of the park by the SCS has not been completed. Even those areas which have been surveyed have pockets of different soils or are a mixture of more than one soil. Therefore, areas designated for recreational development must be thoroughly surveyed and analyzed to avoid any negative impact on the soils.

Cost. Included in construction cost for each facility.

VEGETATION

Original Vegetation

The vegetation viewed by the first settlers of the Des Moines River Original Vegetation Map, M 5). The flatlands above the bluff line, some of the ravines, and the river bottomlands were covered with a full range of prairie vegetation types. Dry prairie was found on the ridge tops and side slopes. Mesic prairie was found along the river and on the flatland above the bluffs. Wet prairie was found scattered wherever depressions existed both above and below the bluffline. Where the prairie met woods, usually along blufflines, there was a narrow band of oak savanna. This type consisted of dense prairie grass interspersed with small clumps or individual bur oak trees. Moving down into ravines and along the sides of bluffs, the woods became denser. The trees were all bur oak with prairie groundcover, except in the most dense areas. This type was known as oak woods. Along the river bottom and lower reaches of the bluffs, there was a dense mixed woods of elm, cottonwood, ash, silver maple, boxelder, basswood, and walnut. This bottomland hardwood type commonly had a groundcover of stinging nettles. On prairie covered slopes in some ravines, small marshy areas called fens could be found. These occurred around springs or seeps and were characterized by bullrushes, willow, sedges, and prairie orchids.

CHRISTIANIA TOWNSHIP
BELMONT TOWNSHIP
T04N
R35W
R36W
HERON LAKE TOWNSHIP
BELMONT TOWNSHIP
M 5

Legend

- River Bottom Hardwoods
- Oak Woods
- Oak Savanna
- Prairie

Park Expansion Study Area

Belmont County Park

Park Expansion Study Area

Des Moines River

Boot Lake

0 500' 1/4mi. 1/2mi. 1mi.
Miles
Kilometers
0 500m 1km

Kilen Woods State Park

Vegetation

The various types of vegetation were sustained by the occurrence of or protection from prairie fires. The prairies, fens, oak savanna, and oak woods were maintained and rejuvenated by periodic wildfires. Protection from these wildfires allowed the bottomland hardwoods to flourish. The combination of wet soils, the river, the topography, and the buffering effect of the oak woods protected the bottomland hardwoods. Suppression of wildfires, plowing, and grazing has altered the vegetation to that which is found today.

The following cross sections, pp 46 - 47, illustrate typical vegetation associations and their locations along the Des Moines River valley. These typicals are not intended to be all inclusive; other minor vegetation associations and locations do occur, but the four vegetation associations illustrated typify the Des Moines River valley.

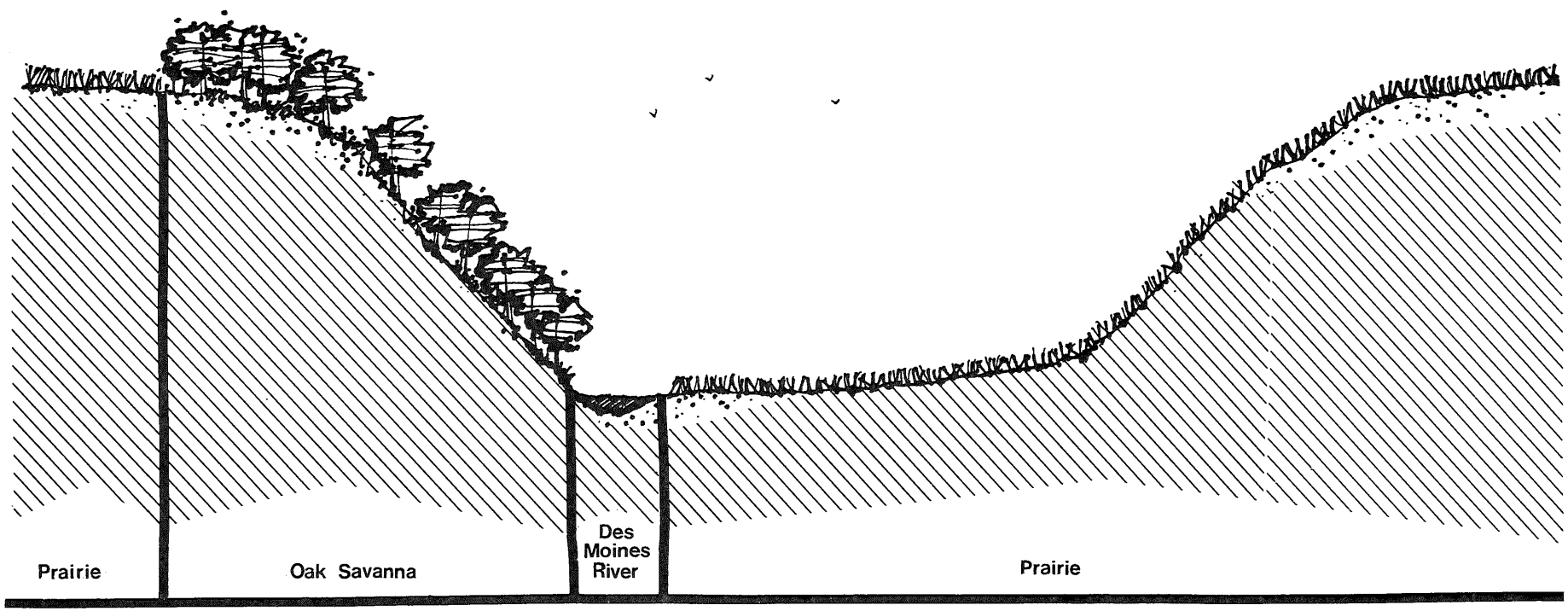
Existing Vegetation

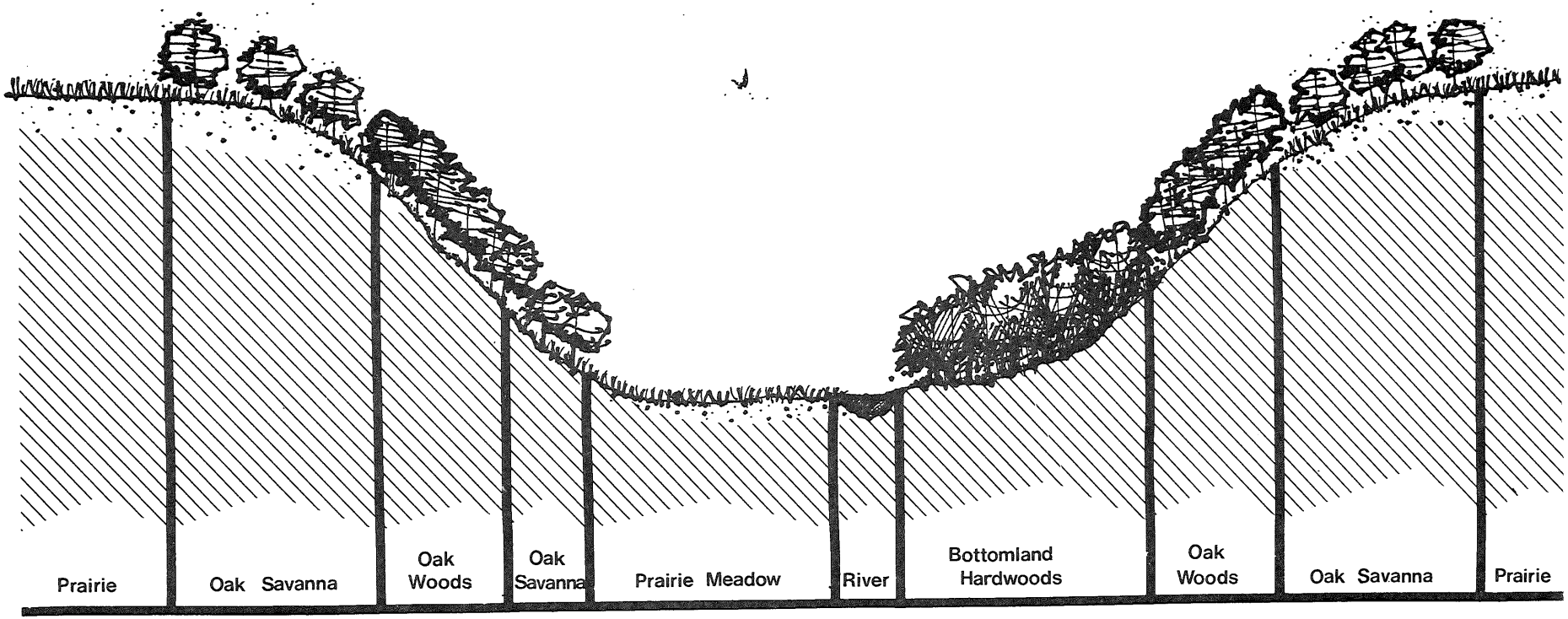
Kilen Woods State Park contains seven vegetation types and one non-vegetation type. They include bottomland hardwoods, northern hardwoods, oak woods, fens, mesic prairie, dry prairie, agricultural fields, and recreation areas. The types are shown on the Vegetation Map, M 6 . A brief description of each type is outlined below. More detailed information is available upon request from the Park Planning Section.

Bottomland Hardwoods (LH) This type consists of elm, ash, cottonwood, silver maple, and basswood, along with some black walnut, butternut, and Kentucky coffeetree. The groundcover ranges from stinging neetles on the floodplain to ironwood, prickly ash, gooseberry, and poison ivy on the higher and sloped areas. Up to 95% of the elm are dead due to Dutch elm disease. The rest will probably die during the next few years. The other species are in good condition, but regeneration is only fair.

Northern Hardwoods (NH) This type consists predominantly of basswood, bur oak, and elm with scattered walnut, hackberry, and ash. The understory and groundcover are generally the same as the upper areas of the bottomland hardwoods. This type was probably not found in the area prior to European settlement.

Cross Sections of the Des Moines River Valley Illustrating Typical Vegetation Associations




Prairie
Oak Savanna
Oak Woods
Oak Savanna
Prairie Meadow
River
Bottomland Hardwoods
Oak Woods
Oak Savanna
Prairie

Oak Woods (O) This type consists almost entirely of bur oak, with a scattering of elm and hackberry. The understory is prickly ash, ironwood, and gooseberry. This type is generally associated with prairie fires and could benefit from a "cool" fire now, since this would remove much of the understory, reducing competition. Cool fires are fast moving fires that burn off the surface grass and small brush without damaging the trees.

Fens (F) This type is found on very wet hillsides where springs surface. The dominant species are sedges, bulrush, and willows. Diamond willows and rare prairie orchids used to be found here. Dissolved limestone in the flowing water makes the soil alkaline. This results in specific plant species which grow in fen areas.

Mesic Prairie (MP) This type consists predominantly of switch grass, Indian grass, and big bluestem. It was the most abundant type of prairie in the area prior to European settlement. Of the three types of prairie, the mesic has the greatest species diversity. Today, nearly all of it has been plowed under, making the mesic the most endangered type of prairie.

Dry Prairie (DP) The dominant species in this type are sideoats gramma and little bluestem. This type is most susceptible to overgrazing and erosion. Thornapple and wolfberry have invaded the overgrazed areas.

Recreation (R) This area is typed recreation because of the facilities that are located within it. The vegetation is representative of oak savanna except that the groundcover is non–native bluegrass.

Agricultural Fields (AF) This type is either tilled or field edge land. It is either in private ownership or under some form of cooperative farming agreement.

Management

Objectives:

To restore and reestablish the pre-European settlement vegetation

To maintain a healthy, diverse vegetative cover

To encourage the return of prairie and river bottom wildlife species which have left the area

- Detailed Recommendations

The major changes will be the reduction or elimination of the northern hardwoods and the restoration of oak savanna, mesic, and wet prairie areas.

Management techniques for the oak savanna and prairie types are currently being researched. The regional resource specialist and park manager will continue this research and implement the most appropriate techniques for this area.

The following actions are keyed to the Vegetation Management Map, M 7 .

Action #1. Perpetuate the bottomland hardwoods.

These stands are generally self-sustaining. However, the dead elm must be removed and hardwood regeneration encouraged. The regional resource specialist should inspect the stands and mark areas where regeneration is not occurring naturally. If the majority of the trees in this section are overmature (over 100 years old star date 1880.0), some should be removed to enhance natural regeneration. Firewood permits and cutting for park firewood use are two recommended methods for tree removal and thinning. If any walnut must be removed, the park crews should do the cutting and sell the wood or use it for building material. Some snags and debarked dead elm should be left for wildlife den trees.

Cost. $8,000

Action #2. Convert northern hardwoods to oak woods and oak savanna.

a) In this area some hardwoods should be left to increase cover type diversity.

b) In this area, trees other than oak, all understory, and woody groundcover species should be removed. Firewood permits, contracts, or park labor should be used to remove the large vegetation. The brush should be cut and the site burned. Where the oak density is thick, the result will be an oak stand. Where the density is light, an oak savanna will be established. The savanna areas should be seeded to prairie plants to complete the restoration.

Cost. $10,450

Action #3. Maintain oak woods.

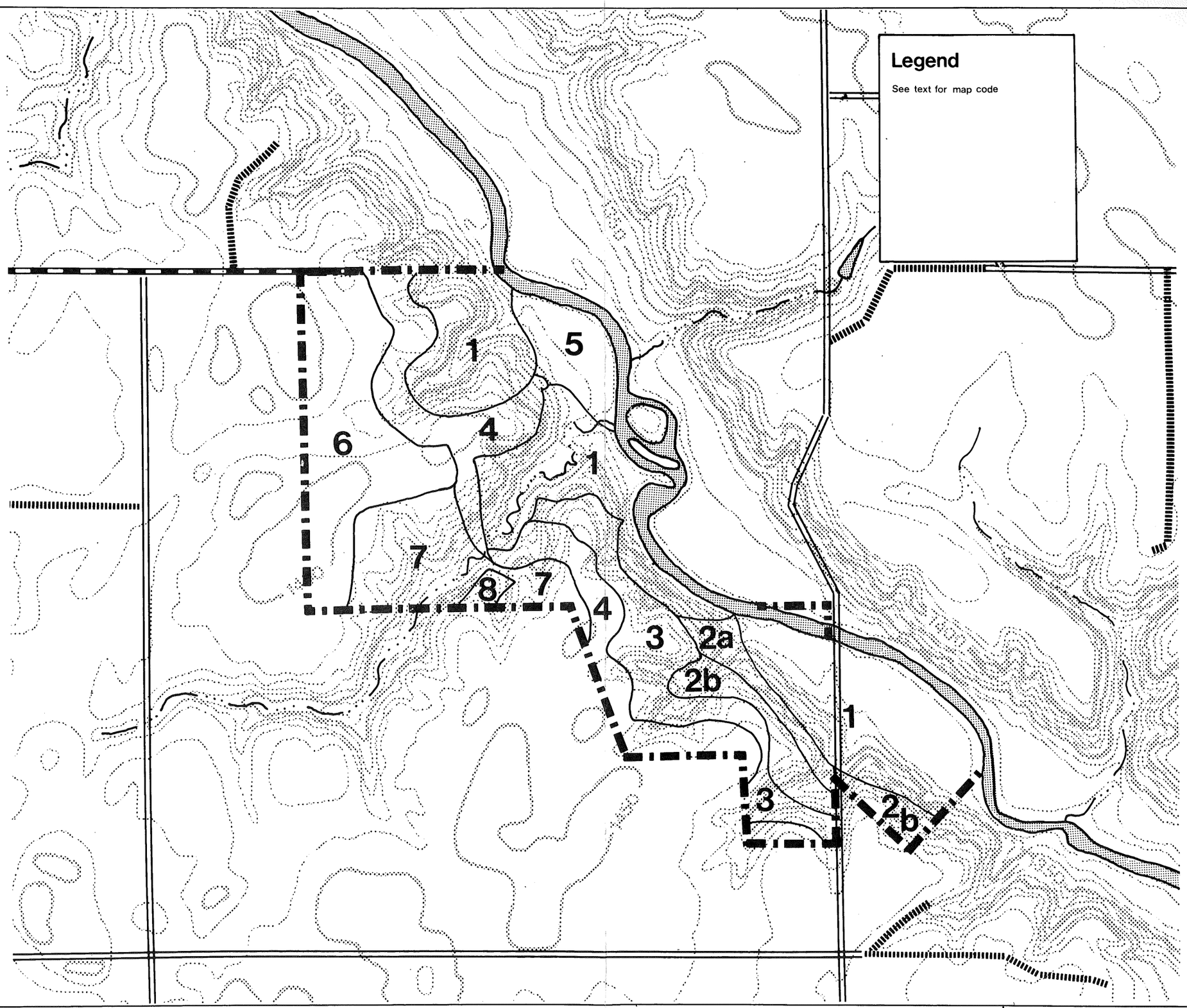
This type has changed little from the presettlement times. Some brush has filled in under the oak. The brush should be cut and dropped to provide fuel for a cool fire, which should then be allowed to burn through the stand. Following the burn, the area should be seeded with shade tolerant prairie plants. If there are areas in these stands where the oak are over 150 years old with little or no regeneration, some canopy openings should be cut to enhance natural regeneration. The fringe areas of the oak woods stands should be converted to oak savanna (see Action #4).

Cost. $12,500

Action #4. Reestablish oak savanna.

Many fringe areas between the woods and prairie were oak savanna prior to European settlement. Oak savanna consisted of scattered individuals oak and small clumps of oak with prairie groundcover. The oak savanna will be established using two methods. The fringes of the oak woods will be converted to savanna through light thinning and planting of forbes and grasses. The recreation areas will require more work. The prairie grasses, forbes, and oak seedlings should be planted and maintained through a program of regular burning. The exact techinuqes used will be determined at the time of implementation.

Cost. $31,500



N

Miles 0 500' 1/4mi. 1/2mi. 1mi.

Kilen Woods State Park

Vegetation Management

Action #5. Reestablish wet prairie.

Many areas in southwestern Minnesota at one time contained extensive marshy wetlands known as wet prairies. They have nearly all been drained for agricultural purposes. These areas may be brought back by plugging the drain tiles and ditches. If drain tiles and ditches are plugged, alternate outlets must be provided to the adjoining farmers to protect their fields from flooding. Cattail, rushes, and cordgrass are three dominant plant species which are found in this type. It may be necessary to transplant native grasses if they do not reestablish naturally.

Cost. $10,000

Action #6. Restore and reestablish areas of mesic prairie.

Existing areas should be maintained and improved through a periodic burning cycle. Non-native species will be replaced by planting indigenous grasses and forbes which do regenerate naturally as a result of management burns.

Cost. $10,800

Action #7. Restore and reestablished dry prairie.

The overgrazed areas in this type should be left alone for several years to allow a litter layer to accumulate for fuel for a controlled burn, and to inventory the existing species.

A burning program should then be initiated and indigenous species transplanted into this site. The burn and transplant program should be started immediately in areas that have not been overgrazed. Invading woody shrubs not controlled by burning should be cut.

Cost. $4,800

Action #8. Maintain fens.

These unusual phenomena should be maintained through regular burning to keep them from becoming choked with woody shrubs.

Cost. $600

In addition, to the specific management actions, the following procedures should be implemented if and when additional land is acquired. Each parcel should be inventoried to determine its present condition. Then, comparing it to the Original Vegetation Map, M 5, the appropriate management should be undertaken to restore pre-European settlement vegetation.

The environmental effects of all of the above actions will have long term positive impacts. Some erosion could occur in the oak woods and northern hardwoods stands if heavy rains fall immediately after a burn. This, however, can be minimized by burning only a portion of a slope at a time. Another impact could be the loss of songbirds and small mammals as the result of a reduction of brush throughout the park. This should be minimized by retaining brush under bottomland hardwoods and some northern hardwoods stands, and will be offset by the return of other species that have left the area.

WILDLIFE

Inventory

An abundance of wildlife inhabit or visit Kilen Woods State Park. Surveys show that 150 bird, 24 mammal, and 6 reptile and amphibian species have been observed in the park in the past year.

Due to the shelter afforded by the topography and vegetation and the water source that the Des Moines River provides, Kilen Woods supports a wildlife population unique in the vast open spaces of the coteau. Beaver, mink, muskrat, racoon, squirrel, and weasel inhabit the woods and banks along the Des Moines River, and the open prairie is home for many other species of wildlife.

Management

Objectives:

To maintain and reestablish, where feasible, those wildlife species present in the park before European settlement

To provide wildlife observation as a recreational experience for all park visitors

To ensure adequate food and cover for the wildlife population in the park

Most of the area has a low winter carrying capacity for deer. The majority of the area surrounding Kilen Woods and the Des Moines River is subject to intensive agriculture. Trees and brush have been removed for farming purposes. Crops are harvested in the fall, leaving very little food or cover of any kind for the deer.

Because of the abundance of winter cover and available food, Kilen Woods provides one of the few places in Jackson County where numbers of deer from the park and the surrounding area can successfully winter. The park has a resident deer population of between 20 and 30. This figure increases four or five fold during the winter. About 20% of the deer in Jackson County winter in the Kilen Woods area.

Food plots in the park increase the chance of winter survival for many deer in the area. This results in higher deer population which enhances hunting on surrounding lands. Food plots have been maintained in the park through a share cropping arrangement with neighboring farmers. A farmer prepares the plot, plants, maintains, and partially harvests the crop. One third of the crop is left standing; two thirds is be used by the farmer.

If acreage on which the food plots are located has been purchased with federal LAWCON (Land and Water Conservation) funds, it falls under federal regulations. These regulations do not permit the

production of any crops by the state or in a lease arrangement with private individuals if the crops produced are sold for profit. Therefore, the current arrangement is in violation of federal regulations and must be discontinued.

Removal of park food plots would have a significant effect on the wildlife. Some deer would starve during severe winters. Trees and shrubbery in the park and surrounding private acreage would suffer from overbrowsing. Depredation of neighboring farms would occur. Deer forced to leave the valley in search of food would create a traffic hazard and the incidence of road kills would significantly increase. The overall effect of the removal of food plots would be a dispersal of wildlife which now concentrate in the park and a significant decrease in the quality of the recreational experience which park visitors now enjoy.

•Detailed Recommendations

Action #1. Provide wildlife food plots.

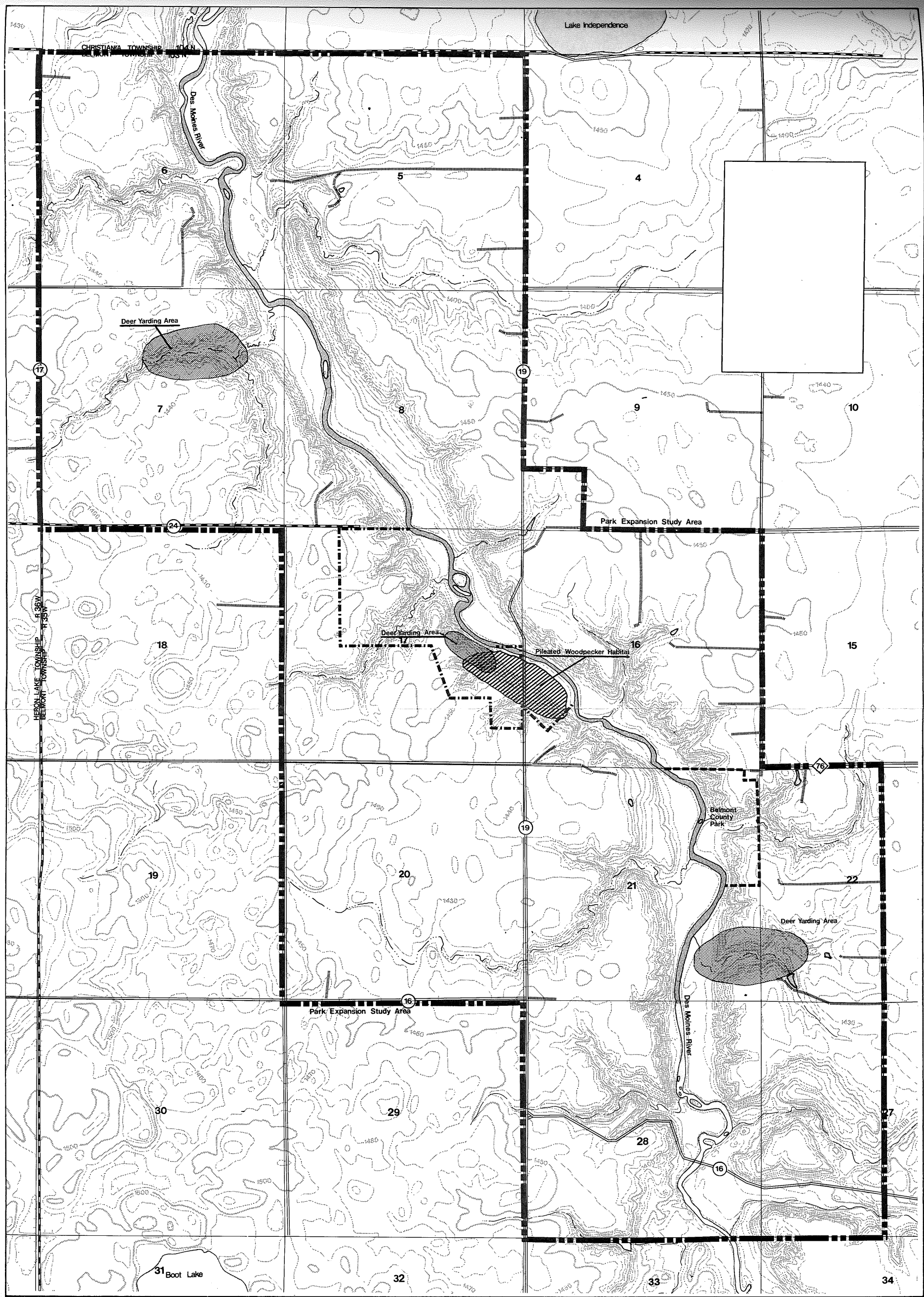
Food plots will be planted and maintained through a custom farming contract. A neighboring farmer will be paid to prepare, plant, and cultivate the food plots. The entire crop will be left standing. As a result, the number of acres in food plots can be reduced while providing the same amount of food for wildlife. Specific requirements should be delineated in the contract. The plots should be located in secluded areas surrounded on three sides by trees. This will make the plots less visible to the public and will provide cover for wildlife.

Cost. Contracts to be negotiated on a bi-annual basis. Costs will vary with labor costs and the size of the plots.

Action #2. Manage the resident deer herd to avoid exceeding the carrying capacity.

The resident deer herd is growing and could soon exceed the carrying capacity of the park. In order to maintain the population at a size representative of presettlement times, it may be necessary to reduce

M 8



Kilen Woods State Park

Wildlife Management

the herd size. Opening the park for limited permit public hunting would be the most feasible method of accomplishing this.

Cost. None

Action #3. Improve the nesting habitat for the pileated woodpecker.

The pileated woodpecker is listed by the DNR in "The Uncommon Ones, 1975" as a species of special interest. Principle management techniques to ensure its protection include leaving dead trees for nest cavities and eliminating intrusions during the nesting period. (Wildlife Management Map, M 8 .)

Cost. Covered in Vegetation Management.

Action #4. Reestablish natural wildlife habitat.

In order to maintain a large wildlife population in the park, more natural food sources and thickets for nesting and protection should be established. This would lessen the dependence of wildlife on the existing food plots. (See Action #1).

Cost. Covered in Vegetation Management.

Action #5. Exclude park visitors from the deer yarding area in the winter (see Wildlife Management Map, M 8).

There are areas in the park where wildlife concentrate during the winter. Under severe winter conditions, wildlife may be under stress. Park visitors snowmobiling, skiing, or walking through these areas can frighten the animals, further depleting their energy reserves.

Eliminating these unnatural disturbances will allow the wildlife to maintain a better physical condition during the winter and increase chances of survival.

This will be accomplished by keeping trail alignments out of this area and by posting a map of the area at the contact station. These areas will also be avoided as the park expands.

Cost. Implementation by park staff.

SURFACE WATER

Inventory

The surface water in Kilen Woods consists of the Des Moines River. The name Des Moines is French for "River of the Monks." The Des Moines originates in Lake Shetek in Murray County. The main Des Moines or west fork, flows 94 mi (151.2 km) from its source to the Iowa border. It descends 235 ft (71.3 m) with an average gradient of 2.5 ft per mi (.46 m per km). The Des Moines is a relatively flat stream, except for moderate rapids in the park area. The river is mainly slow, flat water with a discharge of 350 cu ft per second (1990 lps) at the Iowa border. It has moderately low water quality with a high bacteria count because of pastures and agricultural run-off in the watershed.

There are numerous springs in the Des Moines River valley and surrounding ravines. Most of these springs were formed by erosion which cut through gravel layers in the glacial till that covers the area. Many of these springs run year-round and have very good water quality. In most of the major ravines they form short, small streams which feed into the Des Moines River.

Management

Objective:

To improve the water quality of the Des Moines River

Although the majority of the park's surface water features lie outside the direct influence of this management plan, the DNR encourages local, state, and federal agencies to promote sound agricultural practices and to improve municipal waste treatment. This will improve the water quality of the Des Moines River.

In addition, within the park, reestablishment of wet prairies (see Vegetation Management Action #5, p 51) serves a dual purpose. By diverting surface water run-off through a wet prairie the wetland vegetation will provide nutrient assimilation, which results in higher water quality.

The springs do not require any special management other than limiting vegetation control (spraying) adjacent to the springs/streams to low precipitation months and periodic monitoring of water quality.

GROUNDWATER

Inventory

The aquifer for the park lies in glacial till at approximately 195 ft (58.5 m). It consists of unconsolidated drift deposits and coarse sand and gravel with clay seams. It is recharged by percolation of surface water into the sand and gravel layers that make up the aquifer.

The park has three wells: the service area well, the campground well, and the picnic area well. The service area and campground wells are in use. The picnic area well has not been operated for a number of years.

No water quality information is available for these wells. However, in general, groundwater in the park area is hard with a high iron content. Also, high nitrate levels have been detected in shallow (35-45 ft, 10.5-13.5 m) wells in the area. This problem may eventually occur in wells at the depth of the Kilen Woods aquifer. Some newer wells in the area are being drilled into the bedrock because of this potential problem.

Management

Objectives:

To provide high quality drinking water for park users

To maintain high quality groundwater

- Detailed Recommendations

Action #1. Institute regular water quality testing.

The Board of Health no longer tests the water in state parks. A regular testing program must be instituted to ensure safe drinking water for park users.

Cost. Implementation by park staff.

FISHERIES

Inventory

The Des Moines River provides good stream fishing in the park and below the Windom and Jackson dams. The river contains the following species of game and rough fish:

Game Fish

Black crappie	Stocked
Walleye	Stocked
Channel catfish	Stocked
Northern pike	

Rough Fish

Carp	Buffalo
Bullhead	Mad Tom
Sucker	Grass carp*
Quill back	

*This species, recently imported by the Iowa DNR, may potentially make its way up the Des Moines during periods of extensive flooding. The impact of this foreign fish species on the Des Moines has yet to be determined.

Management

Objective:

To improve fishing opportunities for park visitors

Management of the Des Moines River fisheries is beyond the scope of this plan. However, the DNR, Division of Parks and Recreation should encourage the area fisheries manager to maintain the current game fish stocking program for the Des Moines to offset winterkill.

HISTORICAL/ARCHAEOLOGICAL SITES

Inventory

Kilen Woods and the surrounding vicinity is rich in pioneer history. The park contains remnants of an old pioneer rock bridge across the Des Moines and the accompanying trail which passes through the park. Located in the park vicinity are: a pony express dugout on the east side of the river, north of the CSAH 19 bridge; Brownsburg Mill site, south of the existing statutory boundary, by the Lillieburg bridge; and a number of homesteads with remnants of the original log homes and dugouts.

The timber in the Des Moines valley attracted most of the early pioneers who settled in this area. Many Jackson residents had wood lots along the river for building material and firewood. Twenty-one of these lots were acquired as part of the present park in 1948.

In 1857, five years before the Sioux Uprising of 1862, a band of Sioux Indians under Chief Inkpaduta raided settlers along the Des Moines River.

Significant archaeological sites have not been discovered in the park vicinity. However, this unique wooded oasis on the prairie undoubtedly provided food, fuel, and shelter for many generations of American Indians who roamed the vast prairies.

Action #1. Field check all sites of proposed development prior to construction.

Where remains are found, an assessment will be made of the significance of the site, and the possible effects on it from the proposed construction. When necessary, the site will be excavated before construction. If the site proves to be of significance, consideration should be given to moving development to another site.

Cost. Included in the cost of each development.

Physical Development~ Recreation Management

EXISTING DEVELOPMENT

Building	Dimensions		Construction	Date	Condition
	Feet	Meters			
Contact Station	10 x 20	3 x 6	Frame	'65	Good
Campground					
Sanitation Building	17 x 42	5.2 x 12.8	Frame	'71	Good
Picnic Shelter	31 x 53	9.4 x 16.1	Frame	'62	Good
Picnic Area					
Sanitation Building	15 x 37	4.5 x 11.2	Frame	'50	Good
Observation Tower	12 x 16 x 12	3.6 x 4.8 x 3.6	Pole	'57	Good
Garage and Warehouse	24 x 36	7.3 x 10.9	Frame	'75	Good
Shop Building	21 x 41	6.4 x 12.5	Frame	'36	Poor
Amphitheater	32 x 105	9.7 x 32	Post & Plank	'62	Fair
Manager's Residence	14 x 65	4.3 x 19.8	Frame Mobile Home	'75	Good
Cyclone Shelter	9 x 13	2.7 x 4	Block with Wood Decking	'77	Good

Overview

Most of the existing facilities in Kilen Woods are in good condition. New facilities will be developed only after additional land is acquired of sufficient acreage to justify and support additional development.

Recreation management objectives are generated to guide the development of recreational facilities in state parks. These objectives should be applicable to all recreational state parks. In this way, consistent development of recreational facilities appropriate to recreational state parks throughout the state park system will be ensured.

Important factors to consider in identifying these objectives are park classification, goal, resource sensitivity and capability, and the recreational needs of the park users.

Objectives:

To construct facilities which are necessary for the park visitor to gain access to and appreciation of the park resources

To integrate development into the surrounding landscape as much as possible through selective use of native materials and integration of buildings into the topography of the area

To locate development in areas which can accommodate use with minimal impact on the resources

To keep the amount of development to a minimum because of the sensitivity of the park's resources

To separate incompatible recreational activities

To make all major facilities in the park accessible to special populations, i.e. persons with physical disabilities, the elderly, and the very young

To preserve the historic and prehistoric resources of the park

To use already disturbed areas for proposed development where feasible

Campground

The Kilen Woods State Park campground is located on an oak and prairie knoll approximately 140 ft (42 m) above the Des Moines River. Twenty campsites branch off a single, large loop which is the terminus of the park road in the south central portion of the park. Twelve of the sites are in the oak wooded area on the north side of the loop. The eight remaining sites are open and are located on the southern prairie edge of the loop. A cleared area on the crest of the knoll on the east side of the loop is a sliding hill in winter and provides a view of the Des Moines valley.

The bluff top location of the campground allows the breeze off the surrounding open land to cool the area and keep mosquitoes away.

A modern sanitation building with vault toilets, sinks, and showers is located on the eastern side of the campground. Two pit toilets are on the west end of the campground.

Heaviest use of the campground is on weekends and it is generally filled to capacity throughout the summer.

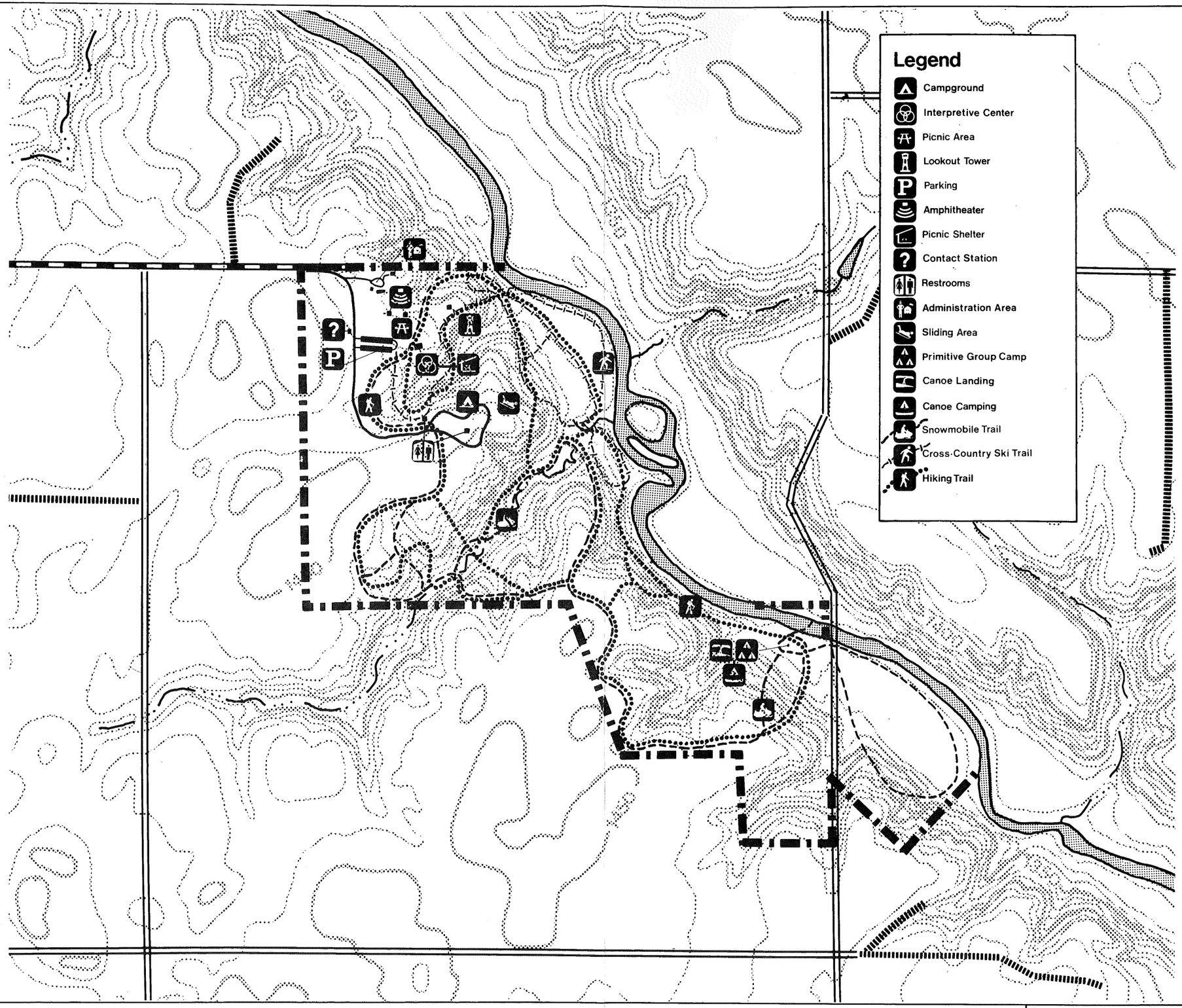
Picnic Area

The picnic area is centrally located and occupies a roughly triangular area on a large bluff top that faces east toward the Des Moines River.

At the base of the triangle, the vegetation is mostly open prairie. This gradually changes to oak savanna at the peak, where most of the picnic sites and facilities are located. An observation tower occupies a small knoll at the tip of the bluff, but the oaks adjacent to the tower have grown and now block the view that the tower once offered park visitors. Surrounding the tower and occupying approximately one-third of the bluff top is an open oak savanna area that shades most of the 64 picnic tables scattered throughout the grounds. To the north of this area on the edge of the bluff is a sanitation building with pit toilets and sinks. The picnic shelter is on the south edge of the main picnic grounds. It has a fireplace, kitchen, storage area, and a small nature center display area which is used intensively all summer. The shelter is used year-round, providing protection from adverse weather during the summer, and as a warming area for trail users during the winter. Across the base of the triangular picnic area from north to south are a small amphitheater with post and plank benches, an 88 car parking lot, and a backstop for softball games.

Trail System

There are approximately 5 mi (7 km) of trails and 13 foot bridges in the park. In the winter, 3.5 mi (4.9 km) of these trails are used as snowmobile trails and 1.5 mi (2.1 km) are used for ski touring. Other



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Kilen Woods State Park

Existing Development

than the picnic area, trails are probably the most used facilities in the park. They offer varying degrees of difficulty due to the rugged terrain, and pass through both open prairie and deep woods.

Service Area

The park manager's residence, a storm shelter, a well, a garage/warehouse, and a shop/office are located on a small knoll near the park entrance. A barricade and signs are provided to direct traffic past this area, and it is screened from view by a dense conifer shelter belt.

Since the manager's residence is a mobile home, a storm shelter was dug into the north side of the knoll for high wind/tornado protection.

Access and Circulation

CSAH 24 ends at the park boundary, where the graveled park road continues on to provide access to the park facilities. The contact station is located on the west side of the park road just inside the park boundary. It has an informational display and a storage area for firewood.

Canoe Access/Campground

An area has been provided on the west side of the CSAH 19 bridge for canoe access and camping along the Des Moines River. This area also functions as a primitive group camp. A pit toilet, fire rings, and some tables are provided along with a pull-off parking area for four cars on the east side of CSAH 19, approximately 300-400 ft (90-120 m) from the site. This is the only facility in the park located on the floodplain.

See the Building Inventory Chart, p 62 for further information on structural facilities. For information on park utilities see the MPD.

PROPOSED DEVELOPMENT

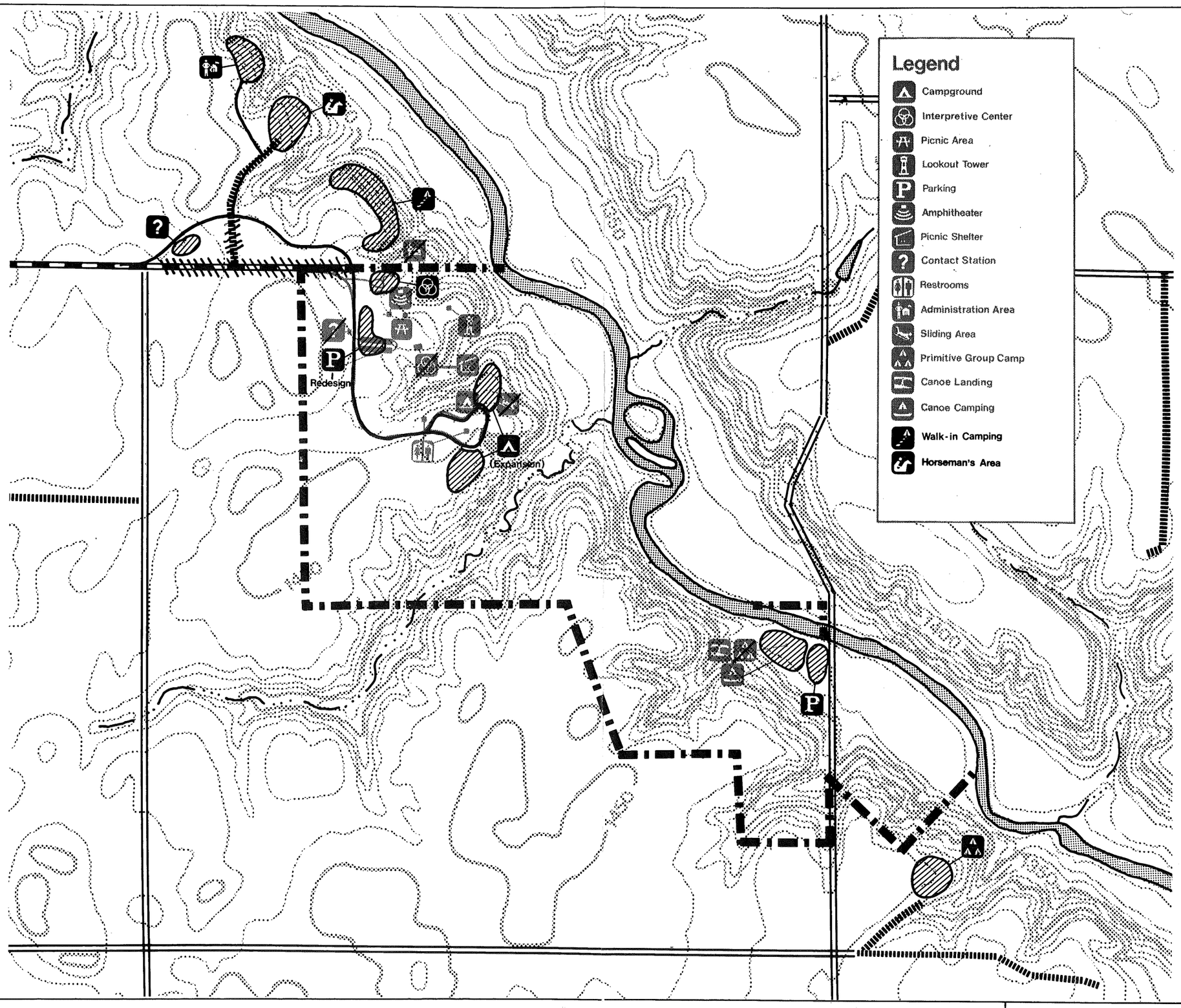
Introduction

Physical development in Kilen Woods State Park will be limited to that necessary for appropriate park use and enjoyment and efficient management. The necessary facilities should be provided only under carefully controlled safeguards against unregulated and indiscriminate use, ensuring the protection of park resources. To the highest practical degree, location, design, and materials for facilities should be consistent with the objectives of preserving and conserving the grandeur of the natural environment.

Administrative facilities, including roads and trails, are necessary for proper management. Public accommodations, such as campgrounds, are called for so that the public may have an opportunity to enjoy and use the unique environments set aside for them. Such facilities should be located, designed, and constructed, to serve and protect park values by focusing and directing the uses of the park. For example, a road, a trail, or a formal campground can serve to channel use within specifically designated locations, preventing indiscriminate use of a larger area which could damage or destroy some of the very resources the park has been set aside to protect.

Facilities should be designed that are compatible with the natural environment. New existing facilities which are in discord with their surroundings will be modified.

It is state law to provide access to recreational facilities for all people. However, extreme topographic relief at times precludes extensive use by people with physical disabilities. (For instance, to provide trails which are accessible to everyone may in some areas require such an extensive system of "switchbacks" and hard surfacing that the natural atmosphere for which the park was established is destroyed.) Therefore, the DNR will concentrate efforts upon providing accessibility in those areas that have the most potential for use by people with physical disabilities. Keeping in mind the idea of providing recreational opportunities for all individuals, a systematic approach will be followed to remove barriers and to provide for use and enjoyment by everyone.



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Kilen Woods State Park

Proposed Development

The policy for establishing and maintaining a good outdoor recreation system is stated in the ORA '75 as follows: "The Legislature finds that the unique natural, cultural, and historical resources of Minnesota provide abundant opportunities for outdoor recreation and education, and finds that these opportunities should be made available to all citizens of Minnesota now and in the future.

...preservation and proper utilization of Minnesota's outdoor recreational resources is becoming increasingly important to the health, welfare, and prosperity of the citizens of Minnesota due to the growing demand for outdoor recreational facilities and the spread of development and urbanization in the state.

...outdoor recreational needs of the people of Minnesota will be best served by the establishment of an outdoor recreation system which will (1) preserve an accurate representaiton of Minnesota's natural and historical heritage for public understanding and enjoyment and (2) provide an adequate supply of scenic, accessible, and usable lands and waters to accommodate the outdoor recreational needs of Minnesota citizens. "

At this time Kilen Woods is developed to capacity. Any additional development within the existing statutory boundary would negatively impact the resources. Therefore, a majority of the actions described in the following proposed development plan are contingent on the expansion of the park.

NOTE: Refer to the Cost and Phasing Section - Chart A, p115 for those actions which have been determined necessary for implementation in order to maintain the existing park.

Since affected landowners in the Jackson County area are opposed to park expansion, and park expansion is dependent upon the acquisition of land from willing sellers, additional facility development may not occur for some time. In this case, as the need arises, development of replacement facilities or additions to existing facilities may be necessary to maintain the existing park. However, replacements or additions to existing facilities should be either moveable or temporary in nature if they cannot be sited to comply with the overall development plan.

Roads and Parking Lots

Objective:

To provide slow-paced vehicular access to major facilities in the park which has a minimal impact on the natural resources

Action #1. Pave the park road from the existing contact station, including the campground loop.

This portion of the park road and the campground loop will not change with park expansion.

Paving the park entrance road and main campground loop will reduce dust. Asphalt or some other dust resistant materials should be used. Asphalt surfaced roads are not natural, but neither are dusty gravel surfaced roads. The dust problem has such a detrimental effect on enjoyment of the park that paving is warranted.

Cost. $18,800

Action #2. Realign the main park road when suitable additional land is acquired.

The entrance road should be relocated to the northwest corner of Section 17 where the present north-south township road intersects CSAH 24. The road should curve to the northeast and then back south to join the existing alignment in the vicinity of the existing contact station.

A park entrance should set the tone for the whole park. By introducing a broad curve at the park entrance, the traffic speed will be slowed and a variety of scenic views will be possible.

The new alignment will be developed through old fields, so native vegetation will not be disturbed. Because it is not a through road, local traffic patterns will not be affected. The old alignment should

be removed and graded to conform with the natural contour of the land. The area should be planted with native vegetation.

Cost. $60,800

Action #3. Provide a bike lane on all park roads. See Trails, Action #7, p 77.

Cost. Included in Actions #1 and #2.

Action #4. Pave the picnic area parking lot.

See Picnicking, Action #2, p 73.

Action #5. Provide off-road parking for the canoe access/campground.

See Camping, Action # 6 p 71.

Camping

Objectives:

To provide the public with the opportunity to enjoy the park resources on a 24-hour-a-day basis

To provide facilities where groups, particularly children, can experience, study, and enjoy the natural environment on a 24-hour-a-day basis

To provide campsites which are located in a natural setting, are accessible by car, provide privacy, and enhance park visitor interaction with the natural surroundings

To give the public the opportunity to camp in areas that are separated from vehicles

To provide an entry/exit point and overnight camping facility for people canoeing the Des Moines River (a DNR designated canoe and boating route)

• Family Campground

Action #1. Redesign and remodel the existing campground.

The existing campground is ideally located, but some of the sites are too close together and all of the sites lack vegetational screening. Two to three sites will be removed to provide better spacing. Screening will be provided by planting native vegetational groundcover. Sites which are exposed to the sun should also be planted with native oak to provide shade.

Cost. $6,000

Action #2. Construct 12-15 new sites adjacent to the existing loop.

There is a need to provide additional campsites to meet increasing demand.

The new sites will be located in two loops: one north and one south of the existing loop. Some of these sites will replace those which were removed to improve inter-site spacing.

The newly remodeled campground will have a total capacity of 30 to 32 sites. All newly constructed sites will be adequately spaced and screened.

Cost. $30,000

Action #3. Remodel the campground sanitation building to make it accessible to people with physical disabilities.

Cost. $12,000

• Canoe Access/Campground

Action #4. Provide a well with a hand pump.

This facility has multiple use as a canoe access and campground and a group camp. These three uses are not always compatible. However, until additional land is acquired, this is the only area in the park that is

accessible yet remote enough for a group camp. The well will improve the facility sufficiently until a new group camp can be developed in an expanded area of the park.

Cost. $6,000

Action #5. Develop a new, primitive group camp.

Camping needs for groups are quite different from the needs for family camping or canoe camping. These types of camping are not compatible and should be separated. Three group campsites should be developed. Each site should contain a parking area, a tenting area, drinking water, several picnic tables, fire rings, and vault toilets. There is a suitable location southeast of the park (see Proposed Development Map, M 10). This area is remote and will allow the development of an adequate facility with a separate controlled access point.

Cost. $12,800

Action #6. Develop a 6-8 vehicle parking area for the canoe access/campground.

At present, parking is provided for approximately four vehicles on a pull-off space along the east side of CSAH 9. A new expanded off-road parking facility should be provided. This lot and road should be constructed of crushed limestone or gravel to minimize flood damage. The Proposed Development Map, M 10 illustrates one potential location for this facility. Another potential location would be on the east side of CSAH 19. This would allow separation of the camp and canoe access activities. Construction of the parking lot as illustrated may require moving some of the existing campsites. The existing pull-off site should be retained to provide overflow parking.

Cost. $2,000

Action #7. Construct 1 or 2 additional canoe campsites.

Due to the strategic location of the park halfway between Windom and Jackson, additional canoe campsites should be developed in cooperation with the canoe and boating route program. The sites should have a fire ring, a picnic table, and level area for a tent. A pit toilet and water pump should be provided above the high water level.

Cost. $3,000

• Walk-in Campsites

Action #8. Develop 6 campsites, in two separate clusters which are accessible by a short hike.

These sites will be widely spaced, well screened, and located in a natural setting. A fire ring, picnic table, and a level area for a tent will be provided at each site. A pit toilet and a water pump will be provided in the vicinity of each cluster.

At present, all campers must camp beside their vehicles, fairly close to other campers. Many campers prefer to get away from roads, cars, and other campers to experience nature. Walk-in campsites can provide this experience. By having two small clusters of campsites, small groups can also be accommodated.

A potential location for these sites is just north of the present boundary (see Proposed Development Map, M 10). This location would allow campers to use the picnic area parking facility.

Cost. $3,000

Picnicking

Objective:

To provide scenic, shaded areas where park visitors, both large groups and individual parties, can prepare and eat meals in a natural setting

The existing picnic area meets present needs. If there is an increase in demand in the future, there is sufficient area for expansion of the facility.

Action #1. Remodel the existing picnic shelter to also serve as an interim trail/interpretive center.

The existing picnic shelter will serve as the interim trail/interpretive center until additional land is acquired and new facilities can be developed. The building should be winterized and the existing interpretive area should be expanded into the storage area to provide additional working space for the naturalist. When new interpretive facilities have been developed, this structure will be used as a picnic shelter. (See Interpretive Facilities, Action #1 p 79.)

Cost. $8,000

Action #2. Redesign and expand the picnic area parking lot.

The parking lot is a visual intrusion. A new parking facility that blends with the landscape and has an increased capacity of approximately 30 spaces should be developed. It should be bermed and planted with native oak to provide screening. This facility should be designed to function as a parking area for the picnic ground as well as for the hike-in campsites and interpretive center.

Cost. $40,000

Action #3. Increase the height of the observation tower.

The observation tower has been overgrown and no longer affords a significant view. A recent engineering investigation determined that it is feasible to raise the existing platform an additional 8-10 ft (2.4-3 m). This will improve the view, but will not extend the tower above the tree line.

This tower was built in 1957 and is in good condition. Even though it is somewhat of a visual intrusion, it should be temporarily retained until the new interpretive center is built (see Interpretive Facilities, Action #2, p 79.)

With increased height, this tower will afford a view of the river valley that is otherwise possible only after a considerable hike to the blufftops.

Cost. $2,500

Action #4. Regrade the area by the softball backstop to its original contours.

Cost. $4,000

Action #5. Remodel the picnic area sanitation building to make it accessible to people with physical disabilities.

Cost. $12,000

Trails

Objectives:

To provide access to a variety of areas within the park along alignments chosen for slight gradient, scenic views, interesting study areas, avoidance of sensitive areas, and separation of conflicting uses

To develop a trail system of sufficient length to provide a satisfying experience for the trail user

The existing trail system consists of hiking, ski touring, and snowmobiling trails and is in fair condition. However, many portions of the trail system have erosion problems. This is due mainly to attempts to satisfy public demand in a park that is too small. For example, Blue Mounds State Park, in Rock County, has 7 mi (11.2 km) of hiking and snowmobiling trails in a park of 1,995 acres (807 hectares). Kilen Woods has 5 mi (8 km) of hiking trails and 3 mi (4.8 km) of snowmobiling trails in its 228 acres (92 hectares). This is a very intense trail system and resource damage will occur if efforts are not made to improve the system.

Action #1. Rehabilitate and monitor the existing trail system.

Realign or phase out trails with overuse or erosion problems. Trails that cannot be phased out or realigned should be rehabilitated with erosion control structures such as: corduroy steps on the steepest portion of trails which are designed to integrate naturally into the terrain, water bars to divert runoff, and logs placed along side slopes for support.

These actions will help maintain the existing trail system until additional properly sited and designed trails can be developed as the park expands. All trails should be closely monitored for signs of overuse.

Cost. $11,000

Action #2. Upgrade and improve the existing bridge system.

Because of many deep ravines and small streams, the trail system has 13 small footbridges. The basic bridge structures are sound, but they all should be decked with pressure treated lumber to avoid recurring maintenance problems. Three to four bridges should be relocated to prevent erosion problems and to improve their ability to withstand seasonal high water.

Cost. $4,000

Action #3. Develop a horseback rider's area that includes provisions for overnight camping (see Proposed Development Map, M 10.)

This area would provide both day use parking and overnight camping for trail user groups and campers with self-contained vehicles. This area should include the following features:

- Parking space for up to 15 cars and 10 cars with horse trailers
- Tie rails
- Water supply
- Loading ramp

- Pit toilets
- 6-10 campsites with fire rings, tables, and tent pads
- Vegetative barriers defining the major use areas of the facility

This facility will primarily serve day use trail users. However, designing the parking area for multi-use will make overnight facilities available to groups of trail users. It will also expand the camping capacity of the park, make better use of the facilities, and provide a wider range of camping opportunities for park users.

Cost. $25,000

• Hiking/Skiing

Action #4. Develop an extended year-round hiking/skiing trail system.

Hiking is one of the most popular activities in state parks. If the park is expanded, hiking and skiing trail mileage should be increased to provide a better trail experience. Trail dispersion will minimize the impact on resources in the park. Wet or sensitive areas should be crossed with boardwalks or very simple bridges such as the ones currently in use in the park. Trails in prairie areas should be mowed corridors with simple "you are here" signs for orientation. In wooded areas, the trails should be brushed and compacted. Soil erosion control practices should be followed where necessary. The trail sytem should take advantage of all variations in terrain and vegetation. Run-out areas for skiers should be provided where appropriate (see Summer and Winter Trails maps, M 11-M 12.)

Cost. See total trail system cost, p 79.

• Snowmobiling

Action #5. Develop a snowmobile trail system. As park expansion occurs, a total of 4-5 mi (6.4-8 km) of snowmobile trails will be developed.

Lake Independence

CHRISTIANIA TOWNSHIP 104 N.
BELMONT TOWNSHIP 103 N.

Des Moines River

Legend

- Scenic View
- Horse Trail
- Hiking Trail
- See Proposed Development Map For Recreational Symbol Key
- Proposed Expansion Area

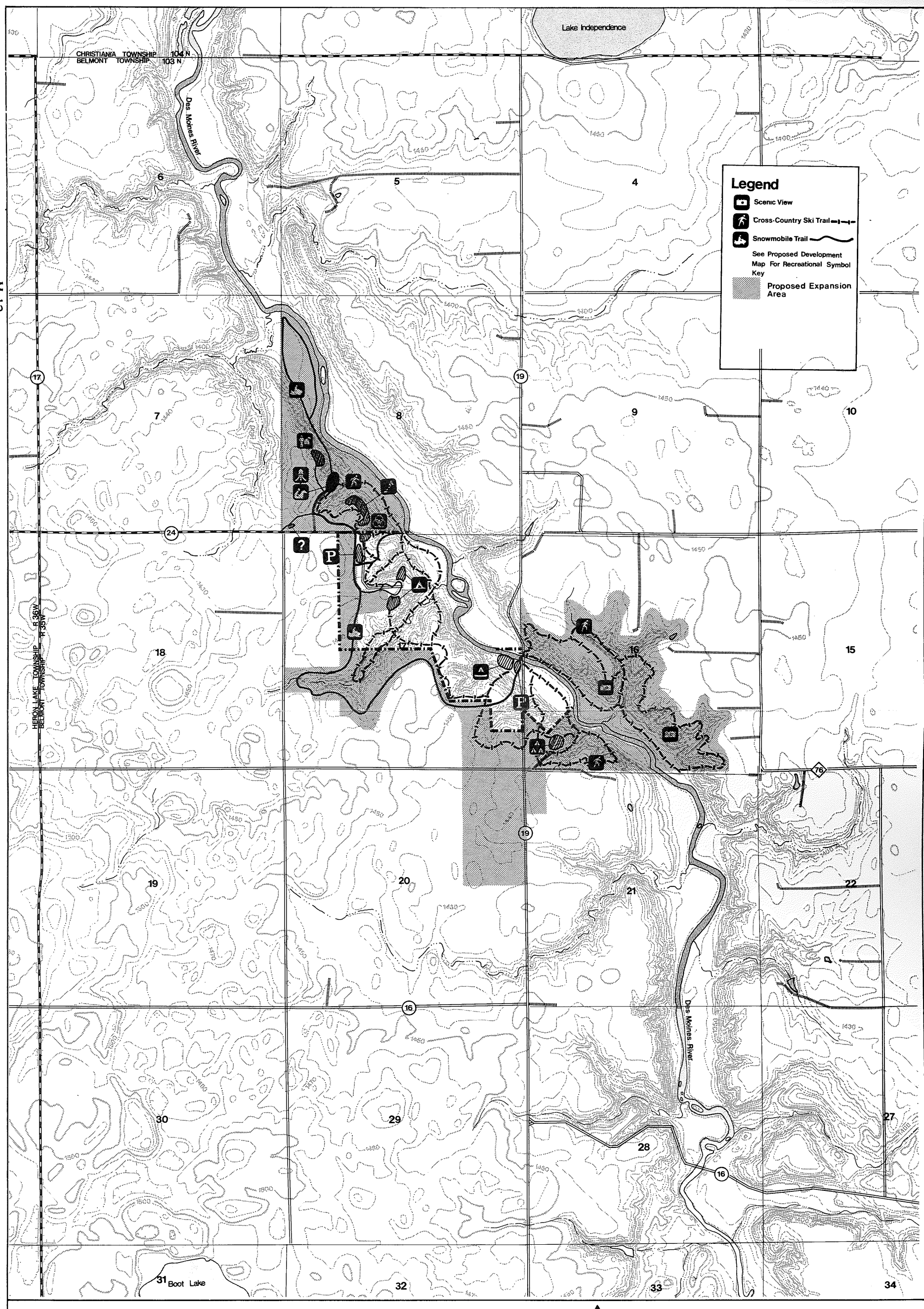
HERON LAKE TOWNSHIP R 36W
BELMONT TOWNSHIP R 35W

Boot Lake

Miles 0 500' 1/4 mi. 1/2 mi. 1 mi.
Kilometers 0 500m 1km

Kilen Woods State Park

Summer Trails



Kilen Woods State Park

Winter Trails

Snowmobile trails will be developed on the periphery of the park to reduce the effect of noise pollution on other park visitors. Ravines and other landforms tend to muffle the noise of the machines. Therefore, these areas should be considered for possible trail alignments, contingent on sufficient snowcover to protect resources. (See Winter Trails Map, M 12.)

There are presently no grant-in-aid snowmobile trails in the park vicinity. The Des Moines River is used as the only snowmobile trail in the area.

Cost. See total trail system cost, p 79.

• Horseback Riding

Action #6. Provide horseback riding trails as the park expands.

There is a need for horseback riding trails in the area. However, the primary purpose of the park is preservation of this portion of the Coteau des Prairie Biocultural Region. As long as horseback riding does not damage the park's ecosystems, the activity should be permitted.

No resource damage is expected, but the effects of horseback use on the park's resources should be carefully monitored. Realignment or rotation of the trail use areas may be necessary in some areas to prevent damage. Closing the trail may also be necessary when soil moisture is so high that horses break through the sod. (See Summer Trails Map, M 11.)

Cost. See total trail system cost, p 79.

• Biking

Action #7. Provide room for a bike lane on all park roads.

Bicycles are a very popular mode of transportation in state parks. Non-energy consuming forms of transportation should be encouraged whenever possible.

Cost. See Roads and Parking Lots, Action #3, p 69.

• Trail Bridges

Action #8. Work with the Jackson County Highway Department to develop the CSAH 19 bridge as a multi-use bridge that can also be used as a trail crossing.

The county highway department is planning to upgrade the present CSAH 19 bridge early in 1980. The DNR should work with the county engineer to maintain the present road alignment. The bridge should be designed with a separate lane for trail use only, and allow trails to pass under it along both sides of the river.

This river crossing will connect the Kilen Woods trail system with Belmont County Park to the southeast.

Cost. To be determined.

The proposed summer and winter trails illustrated on the maps on M 11 - M12 represent the extent of the trails system that could eventually be developed in the recommended expansion area. (See the Park Boundary Section, pp 89 - 108 for the boundary expansion proposal.) Actual trail alignments will be developed only after field investigation and may vary from the alignments shown.

The Summer and Winter Trails maps on M 11 - M 12 illustrate a potential trail system of:

Summer	6 mi	Horseback	Winter	4 mi	Snowmobile
	9.6 mi			6.4 km	
	10 mi	Hiking		8.5 mi	Ski Touring
	16 km			13.6 km	
	16 mi	Total		12 mi	Total
	25.6 km			20.0 km	

Cost. Approximately $45,000

Interpretive Facilities

Objective:

To provide facilities and equipment which will promote the park visitors' understanding and appreciation of the natural resources within the park, the history of the dynamic forces which shaped the park, and the biocultural region which the park represents

Action #1. Expand the existing interpretive facility in the picnic shelter and continue its present use until a new facility can be constructed.

Cost. See Picnicking, Action #1, p 73.

Action #2. Relocate the present service area (see Proposed Development Map, M 10) and construct a new interpretive center on the site.

This building should contain the following facilities: flush toilets, audio visual room, 1-2 display/classrooms, office/work area, deck, wood storage, and outdoor display areas. This building should also be designed to serve as a warming facility for winter trail users. If feasible, an observation deck/platform should be incorporated into this structure. It should be accessible to special populations (i.e., elderly, handicapped) and should offer a panoramic view of the Des Moines valley. It should also be self interpreting, explaining the geologic, vegetational, and other natural features of the park. An observation area of this type would allow all park visitors to experience first hand the beauty of the Des Moines valley. If this structure can be incorporated into the interpretive center, the existing observation tower should be removed.

This facility will provide the region with an environmental education center which can be used by area schools.

Cost. $175,000

Action #3. Provide a temporary screen and electrical service for the amphitheater to allow slides and movies to be shown.

Posts should be installed to allow a screen to be seasonally installed and used as a part of the park interpretive program.

Cost. $500

• Interpretive Trails

Action #4. Develop a self-guiding interpretive trail accessible to all park visitors.

This trail should originate at the existing picnic shelter/interpretive center. A short segment of the existing trail system should be signed as self-guiding. In most cases a mowed trail will be sufficient, but in wet areas or moderately rough terrain, specialized construction should be used.

Cost. $1,000

Action #5. Develop at least one more interpretive trail in conjunction with park expansion and the development of an interpretive center.

This trail should follow the criteria in Action #4, but will originate at the new interpretive center. The trail developed in Action #4 may be included as part of this more extensive trail or will be retained as a separate facility.

Cost. $1,000

Administrative/Support Facilities

Objective:

To provide the essential administrative facilities which will ensure effective, efficient operation of the park

• Contact Station

Action #1. Develop a combination contact station/park office near the proposed new park entrance. See Roads and Parking Lots, Action #2, p 68 .

The existing contact station is suitable for its present limited use, but will no longer be suitable when the entire park is developed. A combination park office/contact station will eliminate duplication of office space, save energy, and centralize park administration.

Cost. $80,000

• Administrative Area

Action #2. Remove the existing shop building.

Either dismantle building and re-use lumber, or sell the building, and have it removed. The building was originally designed as a sanitation facility. It is old and in poor condition.

Cost. $1,000

Action #3. Remove the existing manager's residence.

Since this structure is a mobile home, selling or removing it from the site for re-use will not be difficult.

Cost. $1,000

Action #4. Relocate and construct a new administrative area, including a manager's residence.

The complex should include a manager's residence, a shop building, an unheated storage building (move the existing garage and warehouse), a wood storage building, a gasoline storage building, and a garage. The shop building should include parking space for three vehicles with at least one large heated stall for winter vehicle maintenance. The

workshop portion should be heated, have hot water available, and should include a flush-type toilet. The other service buildings should all be unheated.

The administration area is presently located on the edge of a major use area. This does not afford the manager and his family any privacy. The administrative area should be located away from the major traffic flow/park user areas. The existing administration area is the site of the proposed interpretive center.

Cost. $200,000

- Electrical Lines

Action #5. Bury all new electrical lines.

Above ground electrical lines disrupt the natural visual character of the park.

Cost. $8,000

Miscellaneous

- Sliding Hill

Action #1. Relocate the sliding hill.

The present sliding hill was created by clearing a native stand of oak on the east end of the existing campground. Therefore, the sliding hill will be relocated to allow vegetational restoration of the present site.

The DNR does not encourage the establishment of sliding areas in state parks. However, with the limited public land available in the Kilen Woods vicinity for this form of recreation, the park will attempt to continue to provide this service, but not at the expense of the resources. The area chosen for this activity should be closely monitored for resource damage.

The new sliding hill will be located in the proposed expansion area in conjunction with the development of other facilities. The new hill should take advantage of natural prairie slopes and must have an adequate run-out area. The park will not sign or designate this area, but will allow sliding (tubes only). No other sliding facilities, such as a tow rope, will be provided.

Cost. Operational budget

Architectural Theme

All proposed new major structures shall be designed to integrate into the landscape. All heated buildings will be designed for energy efficiency and apply all or some of the following energy conservation features: proper sun/wind orientation, maximum insulation, earth sheltering, passive and active solar space and water heating applications, and the use of supplemental wood heat.

New structures should be designed to blend into the landscape by locating them in side hills or earth berming. Exposed surfaces should be covered with naturally textured materials; wood, textured concrete, or block, and left natural or stained or painted with earth tone colors.

VISITOR SERVICES

Objectives:

To reveal the kinship of park visitors to the park environment and, by association, their even broader involvement with all ecosystems

To assist park visitors in the discovery of meaningful and satisfying ways in which to enjoy their visits without intruding on the experiences of others or impairing the quality of the park environment

To educate the public on the significance of the park's natural and cultural history

To allow the public to become immersed in an environment different from their everyday lives and experience nature from a different perspective

To educate the public on the Coteau des Prairie Landscape Region which Kilen Woods exemplifies

To provide orientation information

Visitor Information/Orientation

The visitor's first contact with the park and park personnel is at the contact station, located just inside the park entrance. This location allows the visitor to experience the transition between the agricultural fields left behind, and the restored natural setting about to be entered. Information at the contact station, graphics displays and handout literature, should prepare the visitor for the change in environment and experience the park will provide.

Also, at the contact station the visitor can pay entrance and camping fees in addition to asking specific questions.

Action #1. Provide information at the contact station to both orient and inform the park visitor about the park and its natural features.

Communicating to park visitors both information needed to find their way around the park and information as to what facilities and natural features exist in the park is a very important function of park management.

Since we are in the "people" business it is essential that we quickly and effectively communicate our message to the public at a point where virtually all visitors must pass. Many visitors are not familiar with the park and need to be given a quick resume of what the park is about.

Audio-visual displays, graphic displays, maps and handout literature should be available both inside and outside the contact station. This information should help to orient the visitor to the park itself, as well

as the local area, biocultural region, and the state park system. An audio component should be considered for all displays to allow effective communications to all citizens including children and the visually handicapped.

Interpretive Programs

Interpretive services will be developed in recognition of the following:

1. All parks are fragile communities of life which can be perpetuated only through visitor awareness of this fragility and careful management

2. People are a natural and necessary element in park environments, free to enjoy them in non-destructive ways

It is hoped that the people who recreate and learn in the parks will, by experiencing the parks and related interpretive services, derive a better quality of life and gradually increase their environmental awareness. As people are encouraged to think and to feel more about park environments, they can be expected to strengthen their own ties with the land and with our state's cultural heritage.

Since 1976 a naturalist program has operated in the park with limited facilities. The concession area in the picnic shelter building has been used as a display area/nature center and is staffed from June through August by an aide of a local volunteer-in-parks naturalist who conducts programs during the summer months. (See Picnicking, Action #1 p 73.) Nature hikes, talks, and audio visual presentations are the mainstays of the program. This program has been very well received, particularly by local schools. It has received increased use as word of its availability has spread.

Kilen Woods is the only area within the park's influence zone that has the resources to support an interpretive program, and provide environmental education opportunities for local schools.

Action #2. Provide funds for the development of interpretive materials and staffing.

Funds should be provided for a full-time, seasonal naturalist from May 1 to September 30, along with an assistant position (work study or CETA) from May 1 to August 1. In addition, funds should be provided for postage, printing, films, models, maps, books, and audio visual and office equipment. Also, since no winter programming has occurred in the past, a winter snowshoe hike or cross country ski tour with a naturalist several times during the winter should be considered.

As the park expands and a new interpretive facility is developed, additional equipment and programming will be coordinated by the regional naturalist.

Interpretive Themes

The overall interpretive theme would be the biocultural region. The following list of interpretive themes gives a general idea of the resources within the park which can be interpreted.

Biology
Stream life
Plant communities (prairie, oak savanna, and floodplain)
Trees and wildflowers
Ferns, mushrooms, and lichens
Birds
Mammals
Reptiles and amphibians
Insects
Wildlife management
Food webs

Geology
Springs
Valley formation
Fossils
Aquifers

Historical/Archaeological
Bison wallows
Pioneer trails

Indian artifacts
Pioneer dug-outs
Browning flour mill
Homesteading and pioneer wood lots

Interpretive Programming

The following list offers some suggestions for possible interpretive programming:

1. School use programs - an extension of the classroom.

   Programs for school groups are among the most heavily used and most important programs being presented at the park. The function of the park naturalist is to assist schools and teachers in developing environmental education programs which take place at the park. The emphasis is on an extension of the classroom where students can learn by interdisciplinary outdoor experiences. Again, the location of the park makes it an ideal site for an outdoor classroom.

2. Nature films and lectures.

3. Special demonstrations.

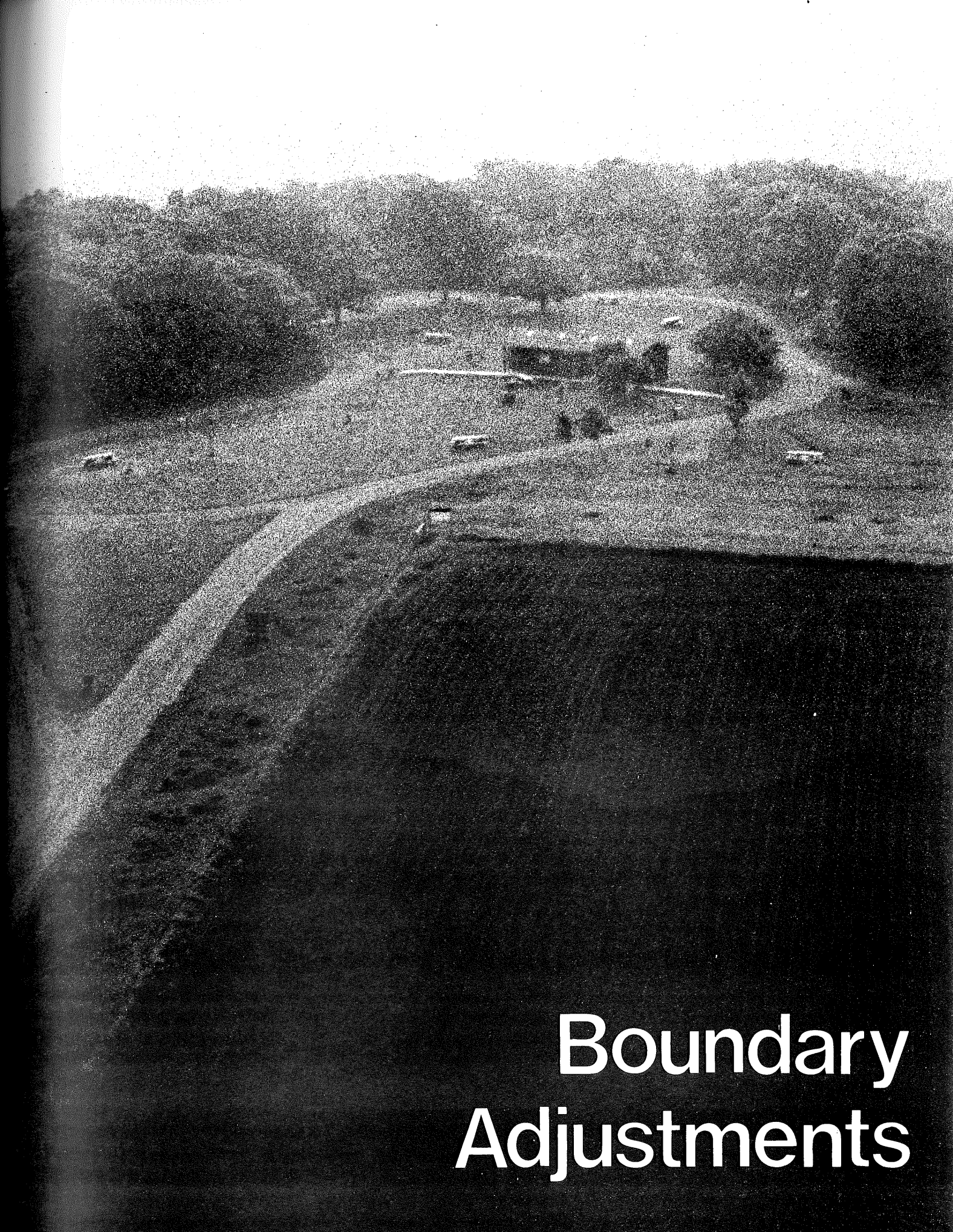
4. Displays and exhibits - These displays should concentrate on six themes: prairie, oak savanna, floodplain ecology, geology, history and prehistory, and the relationship between these themes. Touch tables, murals, photographs, and fossil corners provide an opportunity to touch and see in an attempt to interpret the surrounding area in a dramatic way.

5. Nature hikes and activities for the general public, social groups, and school groups.

6. Teacher workshops.

7. Orienteering

8. Internships which offer students a chance to work in their field and gain experience.



Boundary Adjustments

KILEN WOODS PARK BOUNDARY

This plan recommends a boundary expansion of Kilen Woods State Park from its present size of 228 acres (92 hectares) to 860 acres (348 hectares). Park expansion has been the major issue in developing a management plan for Kilen Woods State Park. Local citizen concern for park expansion initiated the planning process during the current biennium. Through their efforts, along with the efforts of the DNR, an equitable plan for park expansion was achieved.

Because of the number of revisions of the expansion proposal for Kilen Woods State Park a summary of the proposals and acreage involved has been compiled.

228 acres (92 hectares) - Amount of land currently included in the statutory boundary (March 1980)

200 acres (81 hectares) - State owned land (March 1980)

7040 acres (2849 hectares) - Study area

3926 acres (1589 hectares) - Expansion proposed December 12, 1978 (dropped)

2608 acres (1055 hectares) - Total park quality land within study area

1700 acres (688 hectares) - Expansion proposed June 12, 1979 to meet ORA '75 criteria for natural state park making a total of 1900 acres (769 hectares) (dropped)

660 acres (267 hectares) - Expansion proposed to meet ORA '75 criteria for a recreational state park (recommendation of this plan)

860 acres (348 hectares) - Total size of the proposed Kilen Woods Recreational State Park

The major concern regarding the expansion of Kilen Woods is the use of the land along the Des Moines River. There are many types of land use that can occur on any given parcel of land. Agricultural use of the land and its benefits to the local citizens and the state are easily measured in income from crop production and taxes. Recreational use is almost impossible to measure in economic terms. Some studies have been done concerning the tourist dollar, but, in general, the gain from an outdoor recreational facility is intangible. (How much is a sunset worth?) It is a generally accepted fact that Minnesota has vast natural beauty. However, in southwestern Minnesota there are very few areas which have not been greatly altered for agricultural purposes. Kilen Woods along the Des Moines River is one of these areas. Here, a part of our natural past can be restored and shared with the rest of the state. What this is worth in economic terms cannot be measured, but if our last natural areas are lost now, they may be lost forever. It is with this spirit that the local citizen advisory committee approached the DNR with the proposal for expanding Kilen Woods State Park. This is not to say that the advisory group is of a single mind. They represent many different facets of the local community, and are well aware of the potential economic impact of placing additional land in state ownership. What they hope to achieve is an equitable balance between the agricultural use and recreational use of the Des Moines valley in an expanded Kilen Woods State Park.

History of the Park Expansion

This brief history of the park and expansion efforts should help to establish a proper perspective on the boundary expansion proposal.

Kilen Woods State Park was established by the Minnesota Legislature in April, 1945. The original park was 178 acres (72 hectares) in size. Approximately 108.6 acres (44 hectares) were purchased from Agil Kilen (whose family name the park still bears).

An additional 69.4 acres (28.1 hectares) were purchased through friendly condemnation. This process is termed "friendly" because the landowners involved supported establishment of the park and were

willing sellers. Condemnatiaon proceedings were used as an economic way to clear title on 21 woodlots (69.4 acres/28.1 hectares) which were owned by 231 people. Without condemnation proceedings, it would have been necessary for all of these individuals to sign over their interests in the property with quit claim deeds.

The park has been expanded twice, once in 1955 (21.62 acres/8.7 hectares) and again in 1976 (28.4 acres/11.5 hectares). This brought the total acreage to 228 acres (92 hectares), of which 200 acres (81 hectares) are state owned. The 1976 expansion remains in private ownership and is the only privately owned land in the park. (See Ownership Map, M 16).

During the summer of 1976, citizens in the Jackson County area formed a committee of concerned and interested citizens for the preservation and expansion of Kilen Woods State Park. In September of 1976, this committee of local citizens invited representatives of the DNR, Division of Parks and Recreation to attend a land tour of the area. They proposed that the DNR expand Kilen Woods State Park along the river valley to preserve a larger segment of the valley and to provide additional recreational opportunities for the state's citizens. They presented the DNR with a map showing a proposed boundary. At that time, they were told of the ORA '75 planning process and that Kilen Woods would be planned during the 78-79 biennium.

During the spring of 1978, the planning process was initiated for Kilen Woods State Park and the committee of concerned and interested citizens... became the Kilen Woods Advisory Committee. Discussions then began concerning:

(1) <u>The park as a component in the state park system under the ORA '75 definition</u> - The ORA '75 established criteria for classification of state recreational lands. Kilen Woods State Park does not meet the requirements for state park designation because of its small (228 acres/92 hectares) size (see Classification Section, p 24).

(2) Management concerns involved in park expansion - Effective park management requires an expansion of the existing park. Ravines leading into the park should be controlled by the park manager to prevent unauthorized dumping or poaching in these areas. This control would also facilitate vegetation management practices, because currently privately owned ravines restrict access to some areas of the park for weed spraying and controlled burns in prairie management. Areas immediately adjoining the ravines must also be considered in expansion. Their acquisition would allow the restoration of presettlement vegetation associations (as required by the ORA '75), and allow diversification in the development of recreational facilities.

(3) The effects of expansion on landowners and local citizens -

a. Under present law, statutory boundary expansion enables the DNR, Division of Parks and Recreation to acquire an interest in land within the boundary only on a willing seller/willing buyer basis.

b. The division cannot purchase, lease, or negotiate an easement on any land outside of an authorized statutory boundary.

c. Inclusion within a statutory boundary does not infringe on any of the rights of landowners.

d. The division does not have the power of eminent domain, except by a special request for legislation on specific parcels of land, and then only after all other attempts at purchase have failed and after the necessity for condemnation has been proved to the legislature. The use of condemnation for state park land purchase is rare.

e. Severence of a landowner's property by a statutory boundary could cause hardship for the landowner and the DNR in future negotiations by forcing landowners to seek other potential clients for land they may wish to sell outside the statutory boundary.

In effect, the present laws governing the acquisition of land for state parks enable the DNR to become just one more potential buyer within the limits of the statutory boundary. Should landowners within the boundary decide to lease, sell, let an easement, or bequeath an interest in all or any portion of their property, it can be done. The DNR has no exclusive rights to the property.

The DNR was initially requested to expand the present park because local citizens realized that expansion was necessary to protect, maintain, and improve the park. They recognized the uniqueness of the Des Moines River valley in southwestern Minnesota, and feared the future development of private non-farm homesites along the river would hinder expansion and limit the access to this outstanding natural area to only a few individuals.

There were two specific concerns voiced by the advisory committee: the economic impact of setting aside lands for recreational use and fear of eminent domain.

Land set aside for a state park is not lost or eliminated from the community, but preserved for all the people. If there is ever a critical shortage of food and fiber, the land will be available for future agricultural use.

A small amount of income from crops and livestock will be lost gradually as owners within the boundary decide to sell. There will not be an immediate economic impact on the area. In addition, increased tourism may balance this potential economic loss.

NOTE: The Minnesota Legislature passed in-lieu of tax legislation during the 1979 session. This legislation went into effect on July 1, 1979 and pays counties $3/acre in-lieu of taxes on state-owned land used for recreational purposes. For Kilen Woods this payment is $600 which equals three times the tax on the 200 acres currently owned by the state.

Tax loss as the result of public ownership should not affect decisions regarding expansion. Park expansion decisions should be based on the natural resources and the ORA '75 guidelines. The advisory committee, however, should consider working with local legislators to develop or support legislation that would provide state funds in-lieu of tax payments. This would decrease the economic impact of public ownership on the local area.

Although it is understood that the DNR does not have the power of eminent domain without legislative authorization, it still must be emphasized that comdemnation proceedings for park expansion will not be used.

Beginning in the summer of 1978, three public workshops were held as part of the planning process to disseminate information and receive citizen input.

The first public workshop was held in Lakefield on July 11, 1978. At this workshop, a map was distributed which illustrated the original park advisory committee's boundary expansion proposal of 791.2 acres (320.2 hectares). (See July 11, 1978 Handout Map, M 13). It also showed an alternate proposal based on a 10 acre (4 hectare) grid to represent a minimum buffer around ravines. This alternate proposal represented approximately 700 additional acres (283.3 hectares) for a proposed park total of approximately 1,500 acres (607 hectares).

It was anticipated that the handout map would generate discussion on boundary expansion. Many people at the workshop expressed a desire to see the park expanded. Facilities were discussed and some of the landowners expressed concerns about trespassing and potential problems with park visitors. Little mention was made of the actual boundary proposals. However, people at the workshop did express interest over the amount of acreage included in the boundary proposal and it was suggested that Kilen Woods be connected to Belmont County Park.

On September 6th, a meeting was held with the advisory committee. After discussing the DNR's land purchasing authorities (see p 93) the committee decided to tour and look at a study area that included 11 sections (7040 acres, 2849 hectares) of land north and south of the park).

Maps were prepared showing land ownership patterns and land use (crop land, pasture, woods, and farmsteads). (See Ownership and Land Use maps, M 16 - M 17.)

On October 18th, the advisory committee and DNR officials toured the study area in a chartered bus. A proposed boundary expansion line around areas that would qualify as a state park was mapped. A prime consideration when drawing this line was to delete as much crop land as possible, and at the same time, include as much park quality land as possible.

Members of the advisory committee and DNR staff realized that a boundary reflecting all concerns for both private agricultural land and the state park could not be decided in one afternoon. Advisory members also recognized the limitations of the DNR's land purchase authorities and decided the proposed boundary should be drawn allowing for room to negotiate the most equitable boundary between the DNR and each landowner. The fear of eminent domain was again discussed. It was understood that the DNR, Division of Parks and Recreation does not have the power of eminent domain, but it was also recognized that the division could be granted that power sometime in the future. Therefore, the advisory committee requested that the plan include wording specifying that eminent domain would not be used except when condemnation was requested by the landowner or under extenuating circumstances. It was also suggested that if the DNR requests eminent domain proceedings, the county board may wish to review the justifications for condemnation and make a recommendation to the legislature.

The combination of the advisory committee's desire to establish a boundary that would allow the park to be expanded and knowledge of the DNR's land expansion and purchasing powers and limitations led to a proposed expansion of 3926 acres (1589 hectares), (see December 12, 1978 Handout Map, M 14.)

This proposed statutory boundary was presented by the advisory committee and DNR to the public at a second public workshop in Lakefield on December 12, 1978. Many of the affected landowners were present at this workshop and expressed their opposition to expanding the park. They expressed fear of condemnation, tax loss, agricultural land removed from production, and displacement of families. Some support was received from a few individuals who use the park and from user groups such as saddle clubs.

Following the workshop, a number of landowners who would be affected by park expansion formed an organization opposed to park expansion. They have circulated a petition, contacted local government officials and other organizations, and have visited the DNR commissioner's office voicing their opposition to park expansion.

The final public meeting was held in Lakefield on June 12, 1979. At this meeting the management plan proposal for classifying Kilen Woods as a natural state park and expanding it by 1700 acres (688 hectares) (see June 12, 1979 Hand Out Map, M 15) was presented. Almost all of the affected landowners were present and many expressed unaltered opposition to the expansion proposal. They also indicated that they wanted the park to be left as is. A number of the landowners hired an attorney who stated that a legal agreement signed by all of the landowners affected, would be forwarded to the DNR which would state that the affected landowners would never sell their land to the state, and if one of the landowners would decide to sell to the state the other signing landowners would have the right of first refusal. A few people expressed support for the park expansion, but the majority attending the meeting were opposed.

On July 24,1979, the DNR received the landowners' agreement. After review by the attorney general's office, it was decided that; since the management plan is only a recommendation for future management of the park and not authorization for park expansion, the landowners' agreement does not directly affect the management planning process. The landowners' agreement will only take affect if the park is authorized for expansion and a willing seller comes forward.

According to one of the signing landowners, the purpose for the agreement is to retain "local control over what happens to our community."

The management plan was reviewed, revised, and submitted to the State Planning Agency (SPA) on August 21, 1979 for final review. During the review process, a number of landowners met with the SPA to express their concerns regarding park expansion. On September 28th the SPA returned a review memo disapproving the plan stating that the proposed classification and administration were inconsistent with the criteria for natural state parks. On October 4, 1979 the SPA reviewers, DNR park planning staff, and DNR, Division of Parks and Recreation representatives met to resolve the differences regarding the management plan for Kilen Woods.

At this meeting it was agreed that Kilen Woods at its current size is not a state park under the ORA '75. It was decided that with an expansion of 1700 acres (688 hectares) Kilen Woods would fulfill the natural state park criteria, however with the present political climate and landowners' opposition, expansion would be difficult.

It was therefore decided to draft a new 660 acre (267 hectare) expansion proposal. A 860 acre (348 hectare) park would be large enough to satisfy the ORA '75 criteria for a recreational state park classification.

Because of these major changes to the management plan (classification change from natural to recreational and a reduction in acreage from 1700 to 660 acres) a public open house was held in Lakefield on April 17, 1980. At the open house DNR and SPA staff received comment from local people concerning the plan. A majority of the people who attended the open house were opposed to park expansion. In general these people were landowners affected by the proposals to expand the park. They cited the same reasons, as previously described, (tax loss, fear of eminent domain, and loss of agricultural production) for their continued opposition to park expansion. The change in classification and the reduction in size of the proposed expansion made no difference.

After reviewing the management plan and evaluating the open house proceedings, it was decided that the management plan, as written, is a reasonable compromise that adequately addresses the local concerns and issues which the landowners raised. Based on this evaluation the management plan was resubmitted to SPA for final review on May 1980.

DNR planners were initially requested to evaluate Kilen Woods for expansion by the citizens advisory committee. Through the citizen involvement process, local opposition to park expansion has been expressed. Both sides of the expansion issue show great concern for the welfare of the local area. It is hoped that a compromise can be reached that will benefit all parties concerned. The DNR does not wish to adversely affect any group of citizens, but would rather direct its efforts toward providing recreational opportunities that will enhance the quality of life for a large number of people. The concerns of all parties involved in the planning process have been considered. The boundary expansion proposal which follows attempts to answer these concerns.

Statutory Boundary Expansion

The statutory boundary method of expanding a state park has created problems for the landowners, the advisory committee, and the DNR in the case of Kilen Woods State Park. Therefore, an alternative method of enlarging the park which attempts to satisfy all of the parties involved is being offered for consideration.

The reason that the advisory committee previously proposed a major statutory boundary expansion was to allow the DNR to negotiate with all potential willing sellers in the park area. It was not their intention that the DNR acquire all of the lands within the statutory boundary, but rather to give the DNR the ability to purchase any lands from willing sellers which are suitable for inclusion in the park.

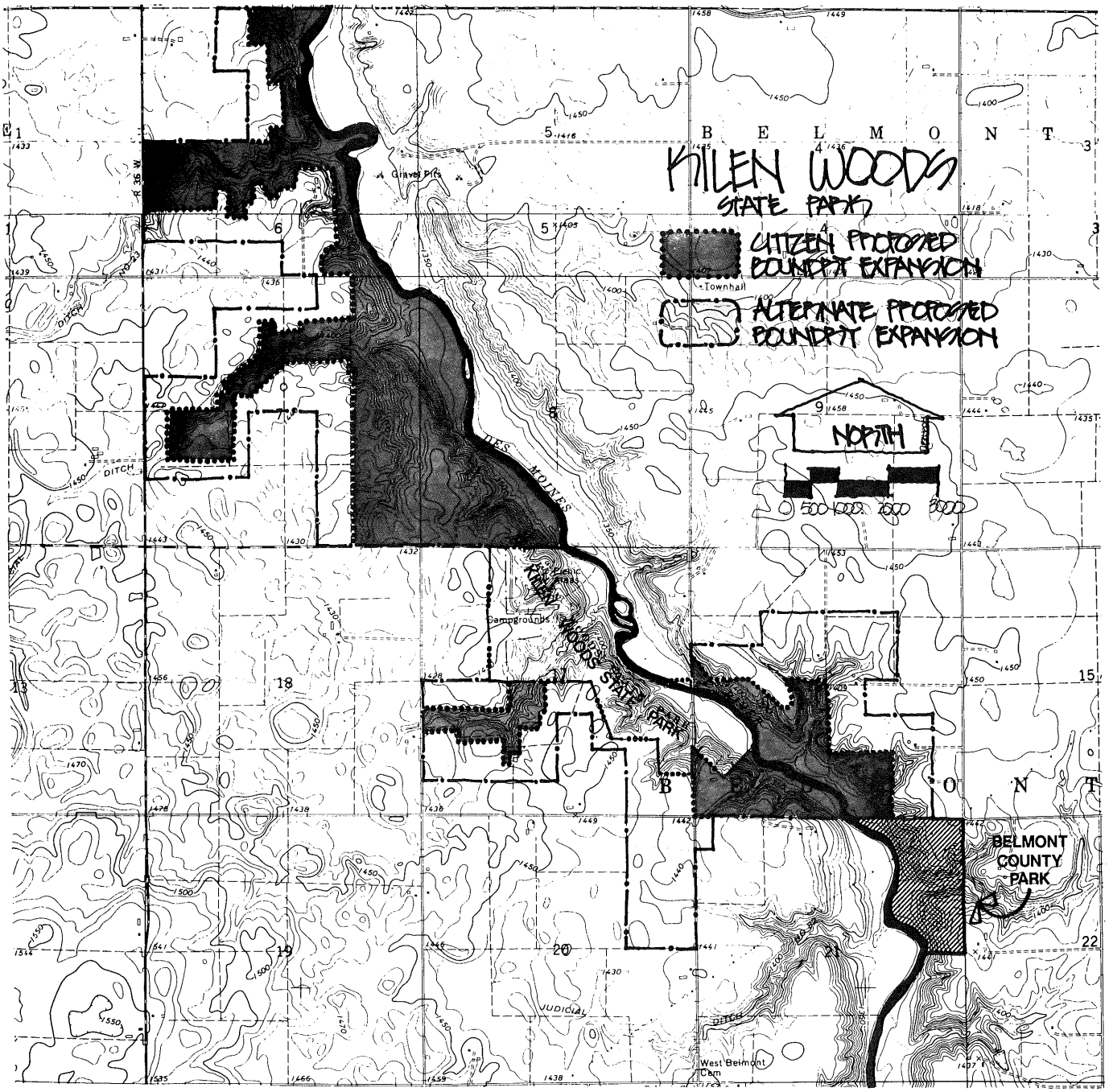
A statutory boundary is established to designate an area which includes outstanding natural and cultural resources, as well as lands necessary for the protection and management of these resources and their

enjoyment by the people of the state. In establishing a statutory boundary, the legislature gives the DNR the authority to buy lands within that boundary only from willing sellers. A statutory boundary does not give the DNR any special authority to purchase land if the landowners do not want to sell.

In practice, the statutory boundary method of park expansion is done in the following way. First, a boundary is recommended by the DNR, Division of Parks and Recreation encompassing an area of park quality land. The legislature establishes this boundary as a statutory boundary. The DNR, Land Bureau then attempts to negotiate an interest in the land from willing sellers. Laws governing the DNR's land purchasing powers place virtually all control of the land negotiating process in the hands of the landowner. However, designating the boundary in advance of actual negotiations for the property causes some landowners to fear that they have lost control of their land. The statutory boundary line itself has an intimidating effect. Also, since the DNR is presently limited to purchasing land only within the statutory boundary, the establishment of a boundary line prior to negotiations sometimes divides a property. If the landowner desires to sell the entire property and the DNR can only negotiate for the portion of the property within the boundary, the landowner is forced to seek an additional purchaser for the rest of the land. This may discourage the landowner and encourage the sale of the entire tract to a private party. These problems hinder orderly expansion and development of the park.

Proposed Expansion

As documented throughout the management plan, a modest park expansion is needed if Kilen Woods is to qualify as either a natural or recreational state park. The size of the expansion has a direct relationship to the classification. (A large expansion would qualify the park to be classified natural; a smaller expansion would be adequate for a recreational classification.) The park, as it exists, is an excellent county or regional park.


KILEN WOODS
STATE PARK
CITIZEN PROPOSED
BOUNDARY EXPANSION
ALTERNATE PROPOSED
BOUNDARY EXPANSION
NORTH
BELMONT
COUNTY
PARK
Townhall
Campgrounds
Gravel Pits
DITCH
JUDICIAL
West Belmont
Cem

Previous drafts of the Kilen Woods management plan proposed an expansion of 1700 acres (688 hectares) which was necessary if the park was to be classified as a natural state park. This proposal was presented at the final public meeting in June. The proposal ran into considerable opposition from adjacent landowners, even though it attempted to answer the landowners' concerns and fears regarding the method for expanding the park's statutory boundary.

At one point in the planning process, the landowners indicated that if the traditional statutory boundary would be eliminated and an agreement not to use condemnation would be included in park expansion legislation, they could possibly accept a moderate expansion proposal. However, the landowners later resisted any expansion.

A draft plan was submitted to the SPA on August 21, 1979. On October 4, 1979, an interagency (SPA/DNR) meeting was held to discuss this draft plan. Among the concerns discussed at this meeting were: opposition to and support of park expansion by the local community; the Des Moines valley as a potential recreational resource; the lack of state park-quality facilities in the area; compliance with the ORA '75 criteria for state parks; and DNR/county coordination and cooperation in development and management of park lands.

The following 660 acre (267 hectare) expansion proposal will comply with ORA '75 criteria for a recreational state park.

Procedure: Primary Proposal

1. Realign the existing statutory boundary to include only state-owned land (200 acres, 81 hectares).

2. Request the legislature to authorize the commissioner of the Department of Natural Resources to acquire from willing sellers up to 660 acres* (267 hectares) of land (designated on the Boundary Adjustments Map A, M 19) which meet the following criteria for park quality land. (See map, M 18.)

a. Land of outstanding resource and recreational value, as well as the land necessary to provide protection and management of the resources.

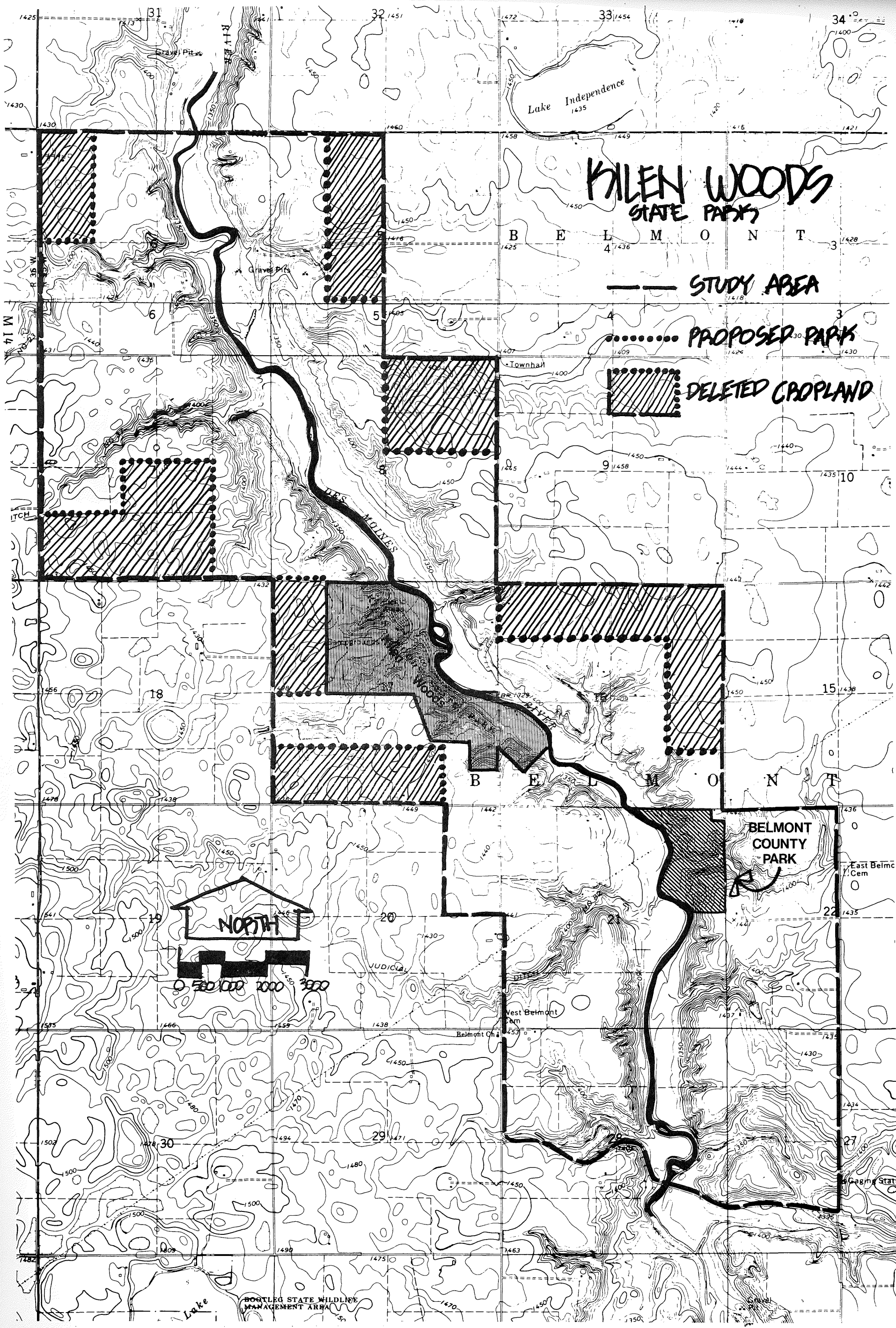
b. Land which will allow park resources to be restored and managed, and to provide protection for the vegetation, wildlife, ravines, bluff line, sight lines, and water quality which make it of state park quality.

*This expansion will encompass resources which will permit intensive recreational use, and will allow development of recreational opportunities that will attract visitors from beyond the local area.

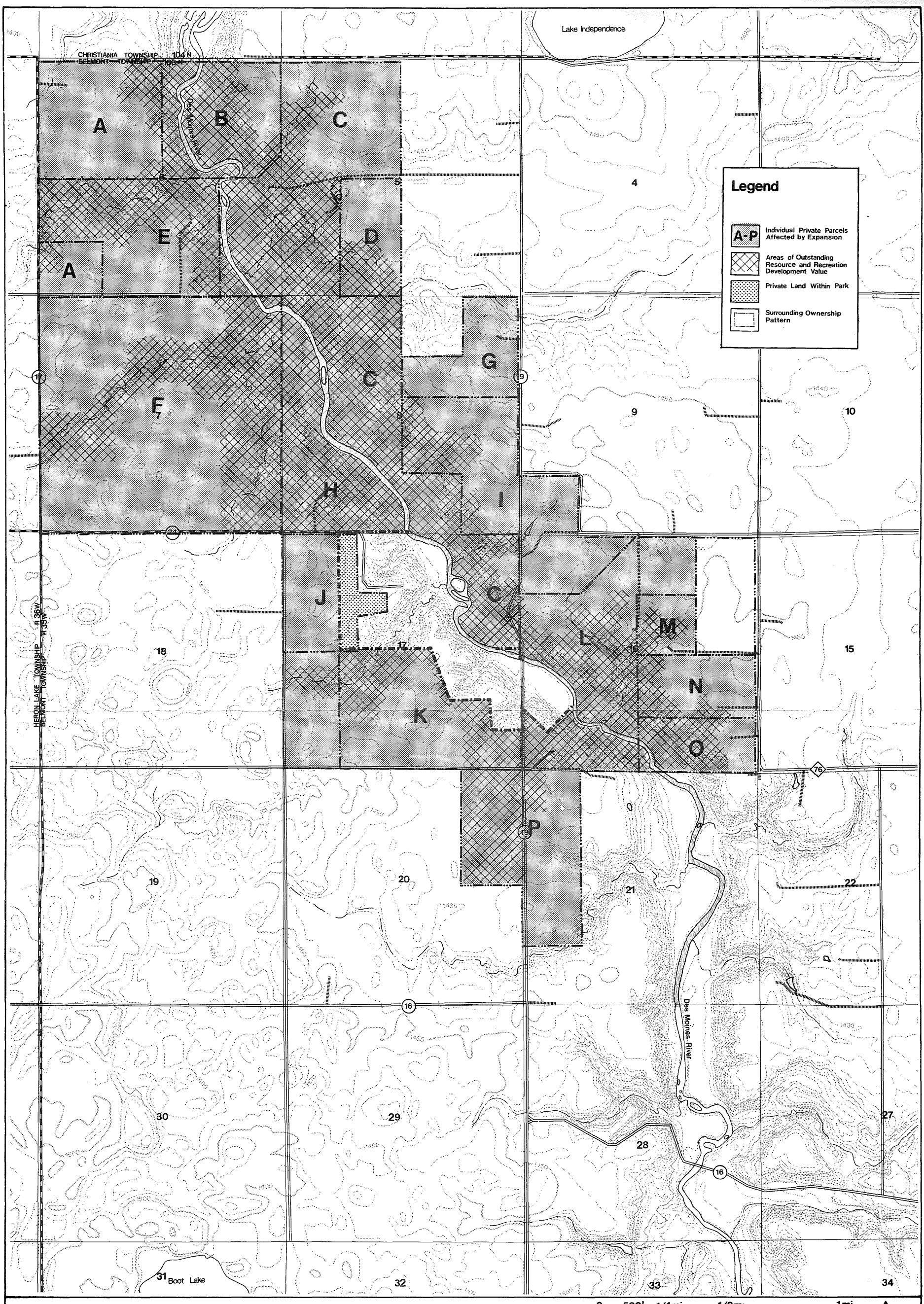
This authorization to acquire land from willing sellers should include the ability to negotiate for a landowner's entire property, if the landowner so chooses. After the entire parcel is acquired, the DNR will retain park quality land and place the surplus on the open market. Use of federal Land and Water Conservation(LAWCON) funds may not be available for land acquisition if parcels are not to be used totally and exclusively for recreational purposes. Therefore, purchase of entire parcels with eventual sell-back may have to occur entirely through state funding sources.

3. Include a provision in the legislation which states that eminent domain will not be used to acquire land for expansion of Kilen Woods State Park. The only exceptions to this provision would be a written request submitted by a landowner (condemnation with landowner's consent), a proposed development by an adjacent landowner that is incompatible with or adversely affects a park resource, or if additional land is needed for health and safety reasons. In the last two cases, eminent domain powers would be requested from the legislature.

This proposal for expansion of Kilen Woods State Park eliminates the need for establishment of a boundary prior to purchase, provides the DNR and the landowner with the greatest negotiating flexibility, and



December 12, 1978 Public Workshop Handout Map Proposed Addition Approx. 3,926.2 Acres



Kilen Woods State Park

Proposed Expansion

M 16

CHRISTIANA TOWNSHIP 104 N

HERON LAKE TOWNSHIP R 36W
BELMONT TOWNSHIP R 35W

Legend

- Kilen Woods State Park
- Belmont County Park
- Park Expansion Study Area
- Private Land Within Park
- Surrounding Ownership Pattern

Park Expansion Study Area

Belmont County Park

Park Expansion Study Area

Miles 0 500' 1/4mi. 1/2mi. 1mi.

Kilometers 0 500m 1km

N

Kilen Woods State Park

Ownership

M 17

Lake Independence

CHRISTIANA TOWNSHIP 104 N

Des Moines River

Park Expansion Study Area

Kilen Woods State Park

Belmont County Park

Boot Lake

HERON LAKE TOWNSHIP
BELMONT TOWNSHIP

R 36W
R 35W

Legend

- Pasture
- Cropland
- Wooded Pasture
- Undeveloped Woods
- Active Farm
- Inactive Farm

Miles: 0 500' 1/4mi. 1/2mi. 1mi.

Kilometers: 0 500m 1 km

N

Kilen Woods State Park

Surrounding Land Use

may be more acceptable to the landowner and local citizens. It will allow the orderly expansion and development of the park and avoid the perceived problems associated with the traditional statutory boundary expansion.

The preceding proposal suggests that the state, at some time in the future, acquire fee title to the area on the Proposed Expansion Map, M 15, from willing sellers. There are two other options to this proposal which the DNR would consider acceptable, although neither is as desirable as fee title ownership of the park.

Option #1: The DNR will purchase only those areas necessary for development of facilities, approximately 300 acres (121 hectares). Additional recreational/trail development will occur only after negotiations for trail easements with private landowners. The primary objective for the trail easements would be to develop a trail link to Belmont County Park.

It should be pointed out that this option is similar to the main proposal in that it would require that the legislature authorize an expansion area. State law regarding state park easement acquisition requires that they be purchased within an area established by legislative statute.

Option #2: The DNR will purchase only those areas necessary for development of facilities, approximately 300 acres (121 hectares). Additional recreational/trail development to link Kilen Woods to Belmont County Park would occur only after Jackson County has negotiated fee title ownership or trail easements with private landowners of a trail corridor.

Unlike the legal restrictions on the DNR, Division of Parks, the county can secure easements for a trail without legislatively designating an area. Therefore, this option could potentially decrease the area needed for park expansion to only the area necessary for facility development. This would depend on the terms of an agreement into which the DNR would enter with the county.

It should be emphasized that the initial proposal for fee title ownership of the park is more desirable than easements. However, the two easement options would be useful to provide recreational opportunities during the interim period between legislative authorization for expansion and fee title ownership from willing sellers.

- Alternative Procedures

Should the local community fail to support this expansion proposal, the following two alternatives remain: turn the land over to a local unit of government for a county or regional park, or dispose of it.

The Jackson County Board of Commissioners sent a letter to the commissioner of the DNR on June 7, 1979 stating that they could not accept Kilen Woods as a county park. They said that state imposed limits on county taxes would not allow them to administer the park. Should this alternative require further consideration, it may be possible for the DNR to provide some additional improvements as incentive for the county to take over the facility. Under these conditions, they may reconsider their decision.

Jackson County could also administer the Kilen Woods site as a regional park, with supplementary funding from the Regional Development Commission (RDC) 8. The RDC could identify Kilen Woods as a regional facility and place it on the regional park list, which is approved by the Legislative Commission on Minnesota Resources (LCMR). The park would then qualify for 75% matching funds (50% LAWCON and 25% state) for acquisition and development.

At present, local opposition to expansion of Kilen Woods, led by the landowners who would be affected by the expansion, has created a climate in Jackson County which makes even limited legislative expansion of the park a difficult task. Also, as previously discussed, the Jackson County Board has stated that they will not accept Kilen Woods as a county park. Jackson County established a park board in 1966. Since that time they have developed, through federal LAWCON and state grant-in-aid funding, approximately 200 acres (80.9 hectares) into six county parks. The county is aware of the funding sources that

would allow them to acquire the park and develop it as a county or regional facility, but they are also aware of the additional operation and maintenance costs this would entail, for which they have no potential funding source.

Therefore, if opposition to park expansion prevents the management plan expansion proposal from being implemented, and if Jackson County cannot or will not accept the existing park as a regional or county facility, it is recommended that the DNR dispose of Kilen Woods.

There are two ways this can be done:

1. Place the park in another classification(s).

2. Sell the park as surplus land.

As discussed in the Classification Section (p 24), the existing park adequately fulfills the ORA '75 definition of water access site, scientific and natural area, and wildlife management area. The existing park could, therefore, be zoned into three areas and the appropriate classifications applied. However, because these three classifications are not designed to provide the recreational opportunities found in a state park, many of the facilities and services, such as the campground, resident manager, and interpretive program, would be eliminated. This option would, however, keep the unit under state ownership, and at some future date, as conditions, needs, and opinions change, the unit could be reevaluated, expanded, and reclassified as a state park.

Also, in compliance with the ORA '75, if the legislature decides that the present park should not be classified, the existing park can be declared surplus and sold.

Some of the existing park facilities were developed with federal funds authorized by LAWCON. Section 6F of the LAWCON Act states that any area which receives LAWCON funding for recreational purposes

must remain available for recreational use. The only way one area can be sold is if another area of equal size and value is developed as a replacement. In addition, any sale of LAWCON funded land requires the approval of the secretary of the interior.

The DNR has never approached the Department of the Interior with the sale of an entire recreational unit such as Kilen Woods, but there appears to be no reason why this could not be done. For example, the DNR has proposed an expansion of approximately 800 acres (323.8 hectares) for Beaver Creek Valley State Park in Houston County. This expansion area contains land of like value to the Kilen Woods site (wooded river valley and bluffs). The 200 acres (81 hectares) of Kilen Woods that are state owned could be sold as surplus in exchange for an equal value portion of the acreage to be acquired in expanding Beaver Creek Valley. Since Kilen Woods contains some major facility development and the new acreage in Beaver Creek would be land for trail development and campground expansion, the secretary of the interior would also require, before agreeing to the sale of the site as surplus, that the Minnesota DNR reimburse the federal government for the LAWCON ($9,062.55) spent on facility development at Kilen Woods.

As the preceding discussion indicates, selling a LAWCON funded state unit as surplus would not be an easy task. It would also make reevaluation of the unit for potential park status at some time in the future very difficult. Therefore, sale of the park as surplus should be carefully considered.

- Proposed Zoning Modifications

The Des Moines River valley below Windom has been identified by the Southwest Regional Development Commission as an "exceptional linear resource of at least regional, if not statewide, significance." They have also identifed the Des Moines River as a first priority environmental corridor. Previous sections of this management plan also recognize the Des Moines River valley as a unique resource area in southwest Minnesota with tremendous recreation potential.

Therefore, in addition to the preceding proposal and options for state park expansion, it is also recommended that additional zoning protection be provided for the Des Moines River valley corridor. This is not a recommendation for wild and scenic river designation.

Existing Jackson County zoning provides the Des Moines valley with considerable protection regarding aesthetics and future recreational use. Many provisions of the existing ordinance already meet, and in some cases exceed, wild and scenic river minimum zoning standards. However, Jackson County zoning is not as protective as wild and scenic river zoning with regard to building setback from the high water mark, designated tributaries, and blufflines. Therefore, Jackson County should consider reviewing its current zoning ordinance and applying scenic river zoning standards to the entire length of the river within the county. It is specifically recommended that within the study area, bluffline setback zoning standards be applied which are more protective than the scenic river zoning standards. These standards should help to prevent new residential construction within the Des Moines valley and the ravines which adjoin it. The DNR will gladly work with the Jackson County Parks & Zoning Board in developing these building bluffline setback standards.

In addition, Jackson County should consider placing special emphasis on providing strict bluffline setback zoning standards for:

- All lands next to or across the river from parks or other public lands

- Lands that would be adversely affected by development

- Lands possessing outstanding scenic, scientific, natural, historical, and other similar values.

Scenic river and strict building bluffline setback zoning standards are not meant to prevent development, but to prevent the damage to the river environment that is caused by overdevelopment. Setbacks help prevent erosion and pollution and keep homes and other buidlings from dominating the riverscape. Building setbacks are especially important to protect the highly visible and often fragile wooded bluffs along the

river. Because one of the tenents of local planning in this area is preservation of agricultural land, most development is inadvertently directed toward riverside bluffs and woodlots.

Map Explanation

Boundary Adjustment Map A, M 19 illustrates the following:

1. The total area of park quality land (light gray tone) which was delineated within the park study area.
2. The proposed expansion area (dark gray tone) which consists of a 660 acre (267 hectare) portion of the park quality area.
3. The privately owned parcels (cross-hatched area labeled A–I) which will be affected by the expansion proposal.

The proposed expansion area highlighted by the dark gray tone on Boundary Adjustment Map A, M 19 is a representation of the area necessary for park expansion. The actual location of the park boundary will be negotiated between the DNR and the owners of parcels (A–I) as they become willing sellers.

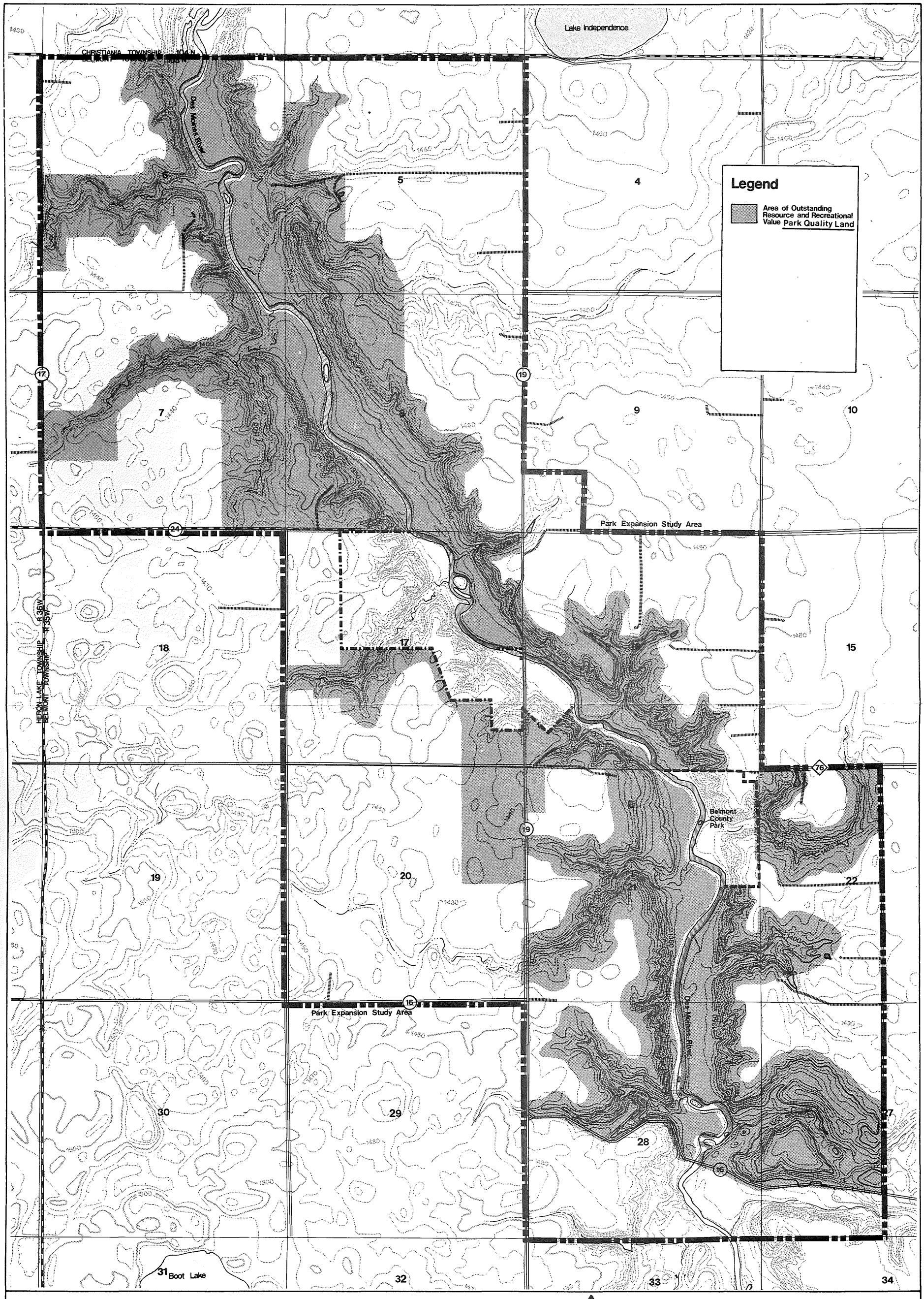
Boundary Adjustment Map B, M 20 clearly illustrates the extent of the 660 acre (267 hectare) expansion proposal (gray tone) and the privately owned parcels (cross-hatched area labeled A-I) which will be affected by the expansion proposal.

Boundary Line Management

Action #1. Fence the boundary in the areas of potential conflicts, or wherever landowners desire it.

Fencing can be erected on a 50/50 basis between DNR and the landowner. DNR can supply the fencing materials and the landowner the labor. The decision on which section of boundary should be fenced will be determined on an individual basis by the landowner and the DNR.

M 18



Kilen Woods State Park

Surrounding Park Quality Land

M 19

CHRISTIANIA TOWNSHIP 104 N
BELMONT TOWNSHIP 103 W

Lake Independence

Dees Moines River

Legend

- A-I — Individual Private Parcels Affeceted by Expansion
- Areas of Outstanding Resource and Recreation Development Value
- Proposed Expansion Area
- Surrounding Ownership Pattern

HERON LAKE TOWNSHIP
BELMONT TOWNSHIP 103 W

Belmont County Park

Boot Lake

Miles 0 500' 1/4 mi. 1/2 mi. 1 mi.
Kilometers 0 500m 1km

Kilen Woods State Park | Boundary Adjustments A

CHRISTIANIA TOWNSHIP 104 N
BELMONT TOWNSHIP 103 N

Lake Independence

Des Moines River

Legend

A-I Individual Private Parcels Affected by Expansion

Proposed Expansion Area

Private Land Affected

Tract	Acres	Tract	Acres
A	153	F	19
B	28	G	34
C	19	H	54
D	89	I	143
E	121		

Total Acres – 660

M 20

HERON LAKE TOWNSHIP — R.36W.
BELMONT TOWNSHIP — R.35W.

Belmont County Park

Des Moines River

Boot Lake

N

Miles 0 500' 1/4 mi. 1/2 mi. 1mi.
Kilometers 0 500m 1km

Kilen Woods State Park

Boundary Adjustments B

Operations and Staffing

OPERATIONS

Maintenance is an essential responsibility of the DNR, Division of Parks and Recreation. It is responsibility that often goes unnoticed by the park visitor in comparison with new development. Yet, the park and the DNR are continually judged by the appearance of the park and its facilities.

The task of providing services to the public and security for park facilities and resources 24 hours a day, 12 months of the year is essential. During the busy season, full-time operation is necessary from 8:00 to 10:00 p.m. The remaining hours are covered by the resident manager. During other seasons, there is only part-time operation 56 hour per week, however, maintenance, repair, and park security account for many extra work-hours. If these responsibilities are to be met, competent trained personnel is essential.

There are four basic aspects to maintenance and operations:

1. Maintaining resources
2. Maintaining facilities
3. Providing services to the park visitors
4. Enforcing rules and regulations which protect park visitors, resources and facilities

One of the major maintenance problems of parks is the impact of people concentrated in specific locations. These areas include: campsites, trails, river banks, areas around buildings, and scenic points of interest. This overuse affects the groundcover and frequently exposes tree roots to damage from foot traffic. The eventual result may be erosion slides, disfigured sites, and even danger to park visitors. A regular maintenance program with adequate personnel, supplies, and equipment controls damage, thereby, avoiding future reconstruction expenditures.

STAFFING

One of the staffing problems in all state parks is the heavy reliance on federally funded work programs, such as the Comprehensive Employment and Training Act (CETA), the Neighborhood Youth Corps (NYC), and Green View. The low cost personnel provided by these programs makes it possible for parks to offer programs and services which would otherwise be impossible. However, these employees are hired on a short-term basis, usually 8 to 10 weeks and often do not have the training and experience necessary to provide needed services without constant supervision in already understaffed parks. To avoid these problems, funding hsould be made available to hire trained personnel for major public service and maintenance programs. Temporary employees should only be hired for minor maintenance and special projects.

The following chart summarizes the existing staff in Kilen Woods State Park.

Existing Park Staff

Management Staff (12 staff months)

1 park manager 9 months (April-December) as a technician 3 months (January-March) as a laborer

Maintenance Staff (9 staff months)

1 laborer - April-December

1 seasonal park worker - May 15-September 15

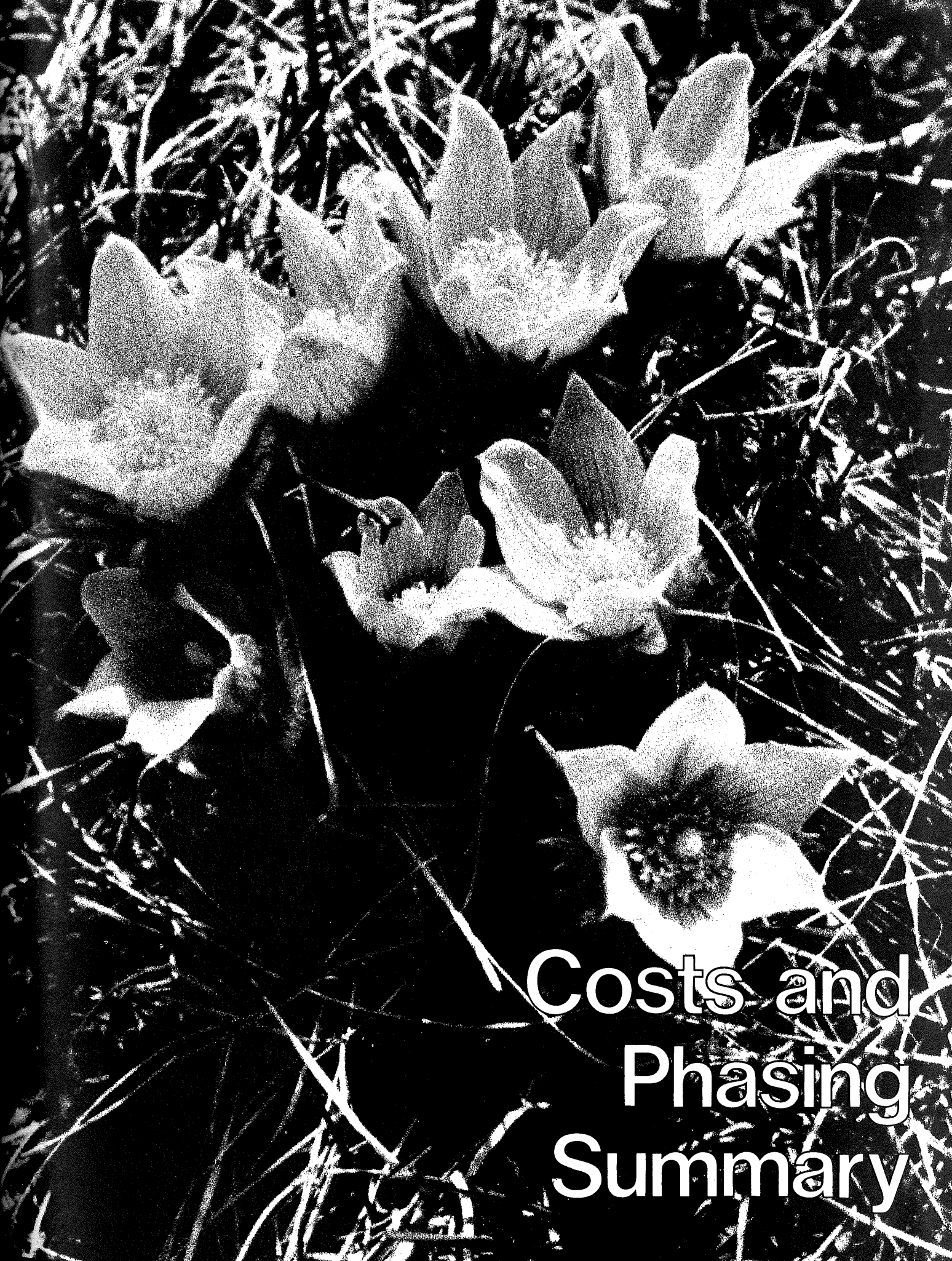
Interpretive Program (4 staff months)

1 naturalist - 2 months as a volunteer-in-parks and 2 months under the CETA program

Comprehensive Employment Training Act (CETA), Young Adult Conservation Corp (YACC), and other government programs have been used to augment the park staff.

FUTURE STAFFING NEEDS

Proposed actions such as the campground expansion can be handled by the existing staff. The development of other new facilities such as the interpretive center, the group camp, walk-in campsites, and the horseback riders area and tripling the length of the trail system will require additional staff, namely: 1 manager (full-time), 1 assistant manager (seasonal technician), 2 park laborers (1 full-time, 1 seasonal), and 3 park workers (seasonal).



Costs and Phasing Summary

COST AND PHASING

Introduction

Costs listed on Chart "A" are for those actions which will be implemented in order to maintain the existing park. Because expansion may be some time in the future, cost and phasing estimates for new facility development and resource management on proposed expansion areas would have very little validity. Therefore, the second part of the Cost and Phasing Section, Chart "B" will consist of a list of the proposed facilities with their respective costs and a total cost for all proposed development. Resource management costs for the proposed expansion area are not included because of a lack of detailed inventory data. Cost estimates for resource management will be generated as additional land is purchased and inventoried.

The following cost estimates were generated in January, 1979. These cost estimates are based on current prices and available information. As new information is made available and as new or modified programs are initiated, revised cost estimates will be prepared to more realistically represent costs at that time. The plan is intended to be implemented in ten years. The phases noted suggest the level of funding to be requested each biennium. But there is no guarantee that this amount of funding would be received from the legislature. Therefore, some change to these phases can be expected.

COSTS AND PHASING -- CHART "A"

Action	Phase / Biennium	1 80-81	2 82-83	3 84-85	4 86-87	5 88-89	Conditional	Total
RESOURCE MANAGEMENT								
Soils								
Action #1.	Soil inventory.	None						
Action #2.	Soil tests.	Included in construction cost for each facility						
Vegetation								
Implementation may await legislative authority to expand the park.								
Action #1.	Perpetuate bottom-land hardwoods.	$ 3,000	$ 1,500	$ 1,500	$ 1,000	$ 1,000		$ 8,000
Action #2.	Convert northern hardwoods to oak and oak savanna.	4,000	2,950	2,000	1,000	500		10,450
Action #3.	Maintain oak woods.	2,500	2,500	2,500	2,500	2,500		12,500
Action #4.	Reestablish oak savanna.	15,000	8,000	4,000	2,500	2,000		31,500
Action #5.	Reestablish wet prairie.	3,500	3,000	2,000	1,500			10,000
Action #6.	Reestablish mesic prairie.	4,000	3,000	2,000	1,800			10,800
Action #7.	Reestablish dry prairie.	2,800	2,000					4,800
Action #8.	Maintain fens.	300	300					600

Action		Phase Biennium	1 80-81	2 82-83	3 84-85	4 86-87	5 88-89	Conditional	Total
Wildlife									
Action #1.	Food plots.			Size of food plots and cost of labor will vary Cost will be negotiated on a bi-annual basis					
Action #2.	Manage resident deer herd.			Covered in normal operating budget					
Action #3.	Improve pileated woodpecker habitat.			Covered in vegetation management					
Action #4.	Reestablish natural wildlife habitat.			Covered in vegetation management					
Action #5.	Exclude visitors from deer yard.			None					
Groundwater									
Action #1.	Water quality testing.			None					
Historical/Archaeological Sites									
Action #1.	Field check all development sites.			Included in the cost of each development					
Subtotal			$35,100	$23,250	$14,000	$10,300	$ 6,000		$88,650

RECREATION MANAGEMENT

The following actions are necessary to maintain the existing park prior to expansion, or are actions in areas that are recommended to remain under DNR control.

Roads and Parking Lots									
Action #5.	Canoe camp parking lot.			$ 2,000					$ 2,000
Camping									
Action #3.	Make campground sanitation building handicapped accessible.		$12,000						12,000

Action		Phase Biennium	1 80-81	2 82-83	3 84-85	4 86-87	5 88-89	Conditional	Total
Action #4.	Canoe camp well and hand pump.		$ 6,000						$ 6,000
Action #7.	Canoe camp parking lot.			See Roads and Parking Lots, Action #5					
Picnicking									
Action #5.	Sanitation building handicapped accessible.		12,000						12,000
Trails									
Action #1.	Rehabilitate and monitor the existing trail system.		11,000						11,000
Action #2.	Improve existing bridge system.		4,000						4,000
Subtotal			$45,000	$2,000					$47,000
TOTAL CHART A			$80,1000	$25,250	$14,000	$10,300	$6,000		$135,650

COST AND PHASING -- CHART "B"

Action		Cost	Total
RECREATION MANAGEMENT			
Roads and Parking Lots			
Action #1.	Pave park road.	$ 18,800	
Action #2.	Realign park entrance.	$ 60,800	
Action #3.	Bike lane on park roads.	Included in Actions #1 and #2	
Action #4.	Pave picnic area parking lot.	$ 40,000	
Action #5.	Canoe camp parking lot.	See Chart A, Roads and Parking, Action #5	
Subtotal			$ 119,600
Camping			
Action #1.	Redesign existing campground.	$ 6,000	
Action #2.	Construct 12-15 new sites.	$ 30,000	
Action #3.	Make campground sanitation building handicapped accessible.	See Chart A, Camping, Action #3	
Action #4.	Canoe camp well and hand pump.	See Chart A, Camping, Action #4	
Action #5.	New primitive group camp.	$ 12,800	
Action #6.	Canoe camp parking lot.	See Chart A, Roads and Parking, Action #5	
Action #7.	Construct 1-2 additional canoe campsites.	$ 3,000	
Action #8.	Develop 6 walk-in campsites.	$ 3,000	
Subtotal			$ 54,800
Picnicking			
Action #1.	Remodel existing picnic shelter to also serve as an interim trail interpretive center.	$ 8,000	
Action #2.	Redesign and expand picnic area parking lot.	See Roads and Parking Lots, Action #4	

Action #3.	Raise observation tower.	$ 2,500	
Action #4.	Regrade area by softball backstop.	$ 4,000	
Action #5.	Make picnic area sanitation building handicapped accessible.	See Chart A, Picnicking, Action #5	
Subtotal			$ 14,500

Trails

Action #1.	Rehabilitate and monitor the existing trail system.	See Chart A, Trails, Action #1	
Action #2.	Improve existing bridge system.	See Chart A, Trails, Action #2	
Action #3.	Develop a horseback riders area.	$ 25,000	
Action #4	Develop an extended hiking/skiing trail system.	See Total	
Action #5.	Develop a snowmobile trail system.	See Total	
Action #6.	Provide horseback trails.	See Total	
Total proposed trail system cost. Actions #4, 5, and 6.			$ 45,000
Action #7.	Provide a bike lane on on all park roads.	See Roads and Parking Lots, Action #3	
Action #8	Work with Jackson County and develop a multi-use trail/road bridge on CSAH 19.	Cost to be determined	
Subtotal			$ 70,000

Interpretive Facilities

Action #1.	Expand existing interpretive facility in the picnic shelter.	See Picnicking, Action #1	
Action #2	Construct a new interpretive center.	$ 175,000	
Action #3.	Provide a temporary screen and electrical service at the amphitheater.	$ 500	
Action #4.	Develop a self-guiding interpretive trail.	$ 1,000	
Action #5.	Develop an additional interpretive trail as the park expands.	$ 1,000	
Subtotal			$ 177,500

Administrative/Support Facilities

Action #1.	Develop a combination contact station/park office.	$ 80,000
Action #2.	Remove existing shop building.	$ 1,000
Action #3.	Remove existing manager's residence.	$ 1,000

Action #4.	Relocate and construct a new administrative area.	$200,000	
Action #5.	Bury all new electrical lines.	$ 8,000	
Subtotal			$290,000

Miscellaneous

Action #1.	Sliding hill.	Operations budget	

Boundary Line Management

Action #1	Fence the boundary in conflict areas or where landowners desire it.	To be determined	

TOTAL CHART B	$726,400
TOTAL CHART A	$135,650
TOTAL COST	$862,050

Implementation

AUTHORITY

Division of Parks and Recreation

Once a management plan has been completed and approved, it will become the responsibility of the director of the Division of Parks and Recreation (hereafter referred to as the director) to ensure proper implementation of the recommendations of the plan. As such, the director will act as the coordinator and liaison between the planning staff, regional staff, local officials, and the general public to ensure that the plan is implemented correctly.

In order to ensure the accomplishment of this cooperative planning and implementation effort, the following responsibilities have been established.

The director and staff will:

1) Coordinate and administer field operations as delegated by the deputy commissioner.
2) Develop and administer programs necessary to accomplish plan goals and objectives. Programs include those necessary to implement management plans and to maintain and operate parks and other programs assigned to the Division of Parks and Recreation (hereafter referred to as the division). Specific program responsibilities at this time are: acquisition, development, resource management, maintenance and service operations, interpretive services, and accessibility.
3) Prepare policies, guidelines, procedures, and standards necessary to implement programs established in this plan (e.g., responsibilities related to letting contracts and initiating force account projects).
4) Prepare legislation necessary to provide program funding, boundary changes, and operational authorities.
5) Review and approve all detailed plans, specifications, and project proposals prepared by the DNR, Bureau of Engineering (BOE) or field staff. Coordinate on–site field staking and site layouts with BOE and regional staff.

6) Coordinate divisional administrative functions with other DNR administrative offices.

7) Work with the DNR's federal grant specialists to obtain maximum federal funding (e.g., LAWCON) for all division programs.

8) Recommend modifications and provide information necessary to update the management plan. All major modifications to the recommendations of an approved plan will be processed through the Office of Planning. The director will submit requests for modifications in writing, stating justification for change and what impact the change would have on the overall management plan. If comments and rationale for opposing a proposed change are not received within 25 working days, agreement is implied. In the event that significant change in the direction of the plan is proposed (e.g., altering goals and/or objectives of the plan), it will be necessary to follow the same procedures established in developing the original plan. If the director and the Office of Planning cannot come to an agreement on the requested change, the director will then submit the request to the commissioner's Planning and Environmental Review Team (PERT) which will formulate the final recommendation to be submitted to the commissioner's executive council. If a recommended modification is minor and follows the intent of the plan, the director has the discretion to make the change without following these procedures, provided informal written agreement is reached with the Park Planning section.

9) Assign responsibilities and funding for implementation of the development program to BOE for letting contracts and to the regional staff for initiating force account projects. In addition, the director shall coordinate the implementation of resource management programs.

10) Make recommendations which will expedite the park planning process and evaluate progress toward the achievement of goals and objectives stated in the plan.

11) Forward BOE requisitions and field project proposals in summary form to the Office of Planning so that the progress of implementation can be monitored.

Regional Office

The regional park supervisor will supervise the physical implementation programs as recommended in this plan.

The regional park supervisor will:

1) Coordinate with the regional administrator and other discipline supervisors to obtain qualified staff to implement this management plan. The district forester, wildlife managers, and other specialists should be consulted on specific aspects of the resource management of the plan.
2) Supervise and direct the park manager to ensure that the management plan is implemented correctly.
3) Regularly field inspect all development in the park.
4) Submit written reports on the progress of development programs to the director with copies to the regional administrator.
5) Submit information to faciliate plan updates and changes. All recommendations for change will be submitted in writing to the director. Rationale and analyses of the impact a requested change might have on the plan must be included in this request.
6) Submit project proposals to the director for review and approval. The director and staff will review all project proposals verifying compliance with the intent of the plan.

The region may implement approved project proposals after detailed specifications have been prepared and funding has been provided.

Park Manager

It will be the responsibility of the park manager, under the direct supervision of the regional park supervisor, to coordinate the physical implementation of assigned sections of the management plan. The manager will inform the regional supervisor concerning the progress of the implementation through project proposals and written progress reports.

The park manager will:

1) Seek the assistance of the regional park supervisor in the resolution of any major implementation problems.
2) Consult with the regional park supervisor if there is uncertainity, concern, or opposition to a recommendation of this plan.
3) Assist and give direction to park field personnel.
4) Maintain records on the progress of development projects to ensure continuity and reference for future updating and revision.
5) Work with the regional park supervisor in initiating project proposals to be submitted to the director for review and approval.
6) Submit to the regional park supervisor information to aid in the updating and revision of the plan.

Office of Planning

The Office of Planning and Research will evaluate implementation of the management plan and make recommendations to the director if it appears revisions are necessary.

The Office of Planning will:

1) Review BOE requisitions.
2) Process all modifications to the approved management plan.
3) Provide additional information and justification for specific recommendations of this plan when requested by the division.
4) Maintain contact with the public, local officials, legislators, and DNR staff regarding the updating of the plan.

IMPLEMENTATION OF RESOURCE MANAGEMENT PROJECTS

There are two procedures for the division to follow in the implementation of resource management projects: contract and force account.

Contract

Director initiates a project by preparing the management program, in compliance with this plan.

Director distributes copies of the preliminary program and drawings to the regional staff for review.

Director approves project and initiates bidding process through the Department of Administration, Division of Procurement.

Director supervises and monitors the program.

Consultant or contractor, in coordination with divisional and regional staff, completes this project.

Director approves the completed project.

Force Account

Director initiates a project by preparing the management program, in compliance with this plan.

Director distributes copies of the preliminary program and drawings to regional staff for review.

Director assigns funds to the regional park supervisor.

Regional park supervisor and resource staff prepare a detailed resource management program.

Detailed resource management program is submitted to the director for approval.

Once approved, the regional park supervisor and resource manager may:

Assign the park manager and field personnel to implement the program

Prepare contracts to be let to local contractors or consultants

Regional staff supervises project.

Director and staff monitor the overall progress of the resource management program.

Regional park supervisor notifies the division that the project has been completed as planned.

IMPLEMENTATION OF DEVELOPMENT PROJECTS

There are two procedures for the division to follow in the implementation of development projects: contract and force accounts.

Contract

Director initiates project by preparing a development program which complies with this plan.

Director distributes copies of preliminary program and drawings to the regional staff for review.

Director requests BOE to prepare detailed drawings and specifications in accordance with the approved program.

BOE submits drawings and specifications to the director.

Director approves drawings and specifications, ensuring compliance with the objectives and goals of this plan.

Force Account

Director initiates a project by preparing a development program which complies with this management plan.

Director distributes copies of the preliminary program and drawings to regional staff for review.

Director assigns funds to the regional park supervisor.

Regional park supervisor may:

Request that BOE prepare detailed drawings and specifications for review by the director

BOE processes contract documents through the Department of Administration, Division of Procurement for bidding and contract award procedures.

BOE provides direction to the contractor and establishes site location and field staking.

BOE supervises construction and approves completed work according to contract documents.

Director and staff monitor the progress, funding, and necessary coordination between other state agencies and funding sources.

Assign the park manager to complete the project with field personnel

Assign park manager, in cooperation with the regional staff, to let bids to local contractors

Regional, divisional, or BOE staff will supervise the project depending on the complexity of the specific project.

Regional park supervisor will certify the director that the project has been completed as planned.

Director and staff will monitor the progress of the development program.

MAINTENANCE AND OPERATIONS

The division will provide the regional staff with necessary direction to maintain and operate state parks in a statewide system. Training courses and policy manuals will be prepared by the division on park operations, maintenance, enforcement, signing, and construction standards. If necessary, special operational orders will be prepared by the commissioner for specific problem areas.

General Procedures

The director, in cooperation with the deputy commissioner, will establish policies, guidelines, and statewide procedures for maintenance and operations of all state park facilities.

The regional park supervisors will follow the policies, guidelines, and statewide procedures of the division, as well as commissioner's orders.

The regional park supervisor will supervise and direct the park managers to ensure that park maintenance and operation policies, guidelines, and procedures are followed.

The park manager, under the supervision of the regional park supervisor, will maintain and operate all park facilities.

The director and staff will inspect and review operations of state parks on a regular basis to ensure that statewide procedures are being implemented and followed correctly.