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# A Management Plan for Split Rock Creek State Park

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Minnesota Department of Natural Resources

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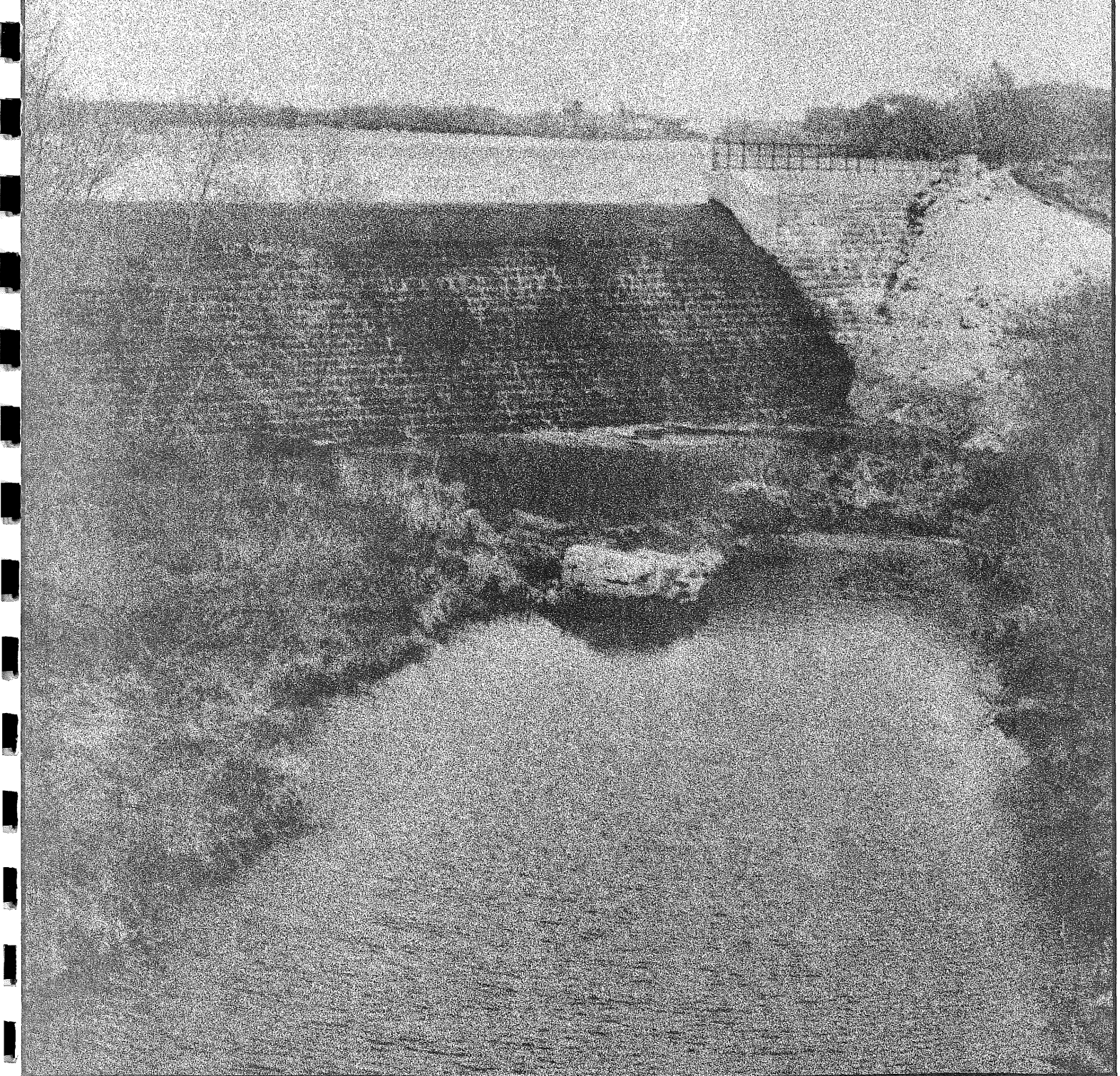
This document is a summary of the Split Rock Creek State Park management plan. All recommendations, both resource management and physical development are included here. The detailed inventory data and specific instructions for implementation of resource management and facility development have been compiled into a comprehensive management plan with technical appendices. These documents are on file in the:

Office of Planning  
Department of Natural Resources  
Box 10E Centennial Office Building  
St. Paul, Minnesota 55155



A Summary of the  
**Split Rock Creek**  
**State Park**  
**Management Plan**

Minnesota Department of Natural Resources  
Office of Planning  
Printed - June 1983



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# Introduction



## AN OVERVIEW OF SPLIT ROCK CREEK STATE PARK

Split Rock Creek State Park is located in extreme southwestern Minnesota, a few miles east of the Minnesota/South Dakota border. The nearest centers of population are the towns of Ihlen, adjacent to the park, Pipestone, 5 miles to the northeast, and Jasper, 5 miles to the southwest. State Trunk Highway 23 provides access to the town of Ihlen and County State Aid Highway 20 provides direct access to the park.

The statutory boundary of the park encloses 228 acres, all of which is state owned.

The landscape in the vicinity of Split Rock Creek is gently rolling. A bedrock of Sioux quartzite is covered by a thick layer of glacial till.

The park was founded in 1937. Shortly thereafter, the dam was constructed to form Split Rock Lake. The lake is the most significant recreational resource in the park. It provides excellent opportunities for fishing and swimming.

In addition to the recreational opportunities provided by the lake, there is a picnic ground, a primitive campground with 25 campsites, a small primitive group camp, and a short hiking trail. During the winter, the hill adjacent to the water tower is used for sliding.

## THE PLANNING PROCESS

The 1975 Minnesota State Legislature passed the Outdoor Recreation Act (ORA). The intent of this legislation is to ensure, through long-range planning, the protection and perpetuation of Minnesota's outstanding resources. Also included in this legislation is the mandate to provide recreational facilities which are desired by the citizens of Minnesota but which do not compete with those provided by the private sector. The Park Planning Section of the DNR, Office of Planning was established to formulate long range resource management and recreation development plans for 82 state parks, recreation areas, and waysides. Funds for these plans are appropriated biennially by the Legislative Commission of Minnesota Resources (LCMR).

The park planning process consists of six steps:

1. An inventory of natural resources, visitor use, and existing facilities is compiled. Specialists from other DNR divisions and sections assist in collecting pertinent data. At this point the first public workshop is held.
2. Alternatives for park management and development are developed. A second public workshop may be held to review these alternatives and invite further public comment. These alternatives are then reviewed by the Park Planning staff and the DNR, Division of Parks and Recreation.
3. The recommendation for park classification is made, the park goal is developed, and the draft plan is written. This step culminates in the first interdepartmental review.
4. The draft plan is revised as the result of the interdepartmental review. The revised plan is made available to the public for a 30 day review period, after which the final public meeting is held.
5. The draft plan is revised according to information received from the public review. The plan is then sent to the Department of Energy, Planning, and Development (DEPD) for a 60 day reviewal period. (DEPD disagreed with recreational state park classification recommendation of this plan. A final decision on the classification is pending.)
6. The plan is implemented by the DNR, Division of Parks and Recreation.



## A SUMMARY OF MANAGEMENT AND DEVELOPMENT PROPOSALS

### Resource Management

- Conduct a detailed soil analysis.
- Repair the dam.
- Maintain lake water records.
- Prepare a lake bottom contour map.
- Continue fish stocking program.
- Conduct an investigation of the fishery and lake water quality.
- Manage cattail marsh vegetation.
- Maintain prairie remnants.
- Restore grasslands on east and northwest sides of the lake to prairie.
- Plant thickets of native shrubs.
- Plant trees along CSAH 20, near the contact station, in and around the campground, and along the east shore of the lake.
- Maintain tree snags for wildlife.
- Check development sites for archaeological and historical significance for construction.

### Recreation Management

- Provide showers in the campground.
- Install electric lights and outlets in the picnic shelter.
- Develop a trail to access the east side of the lake.
- Remodel the water tower.
- Construct a bathhouse.
- Upgrade the boat launch.
- Construct a fish cleaning house.

### Administrative/Support Facilities

- Construct a new contact station/manager's office.
- Construct a shop building.
- Construct a garage for the manager's residence.
- Bury all electrical lines.

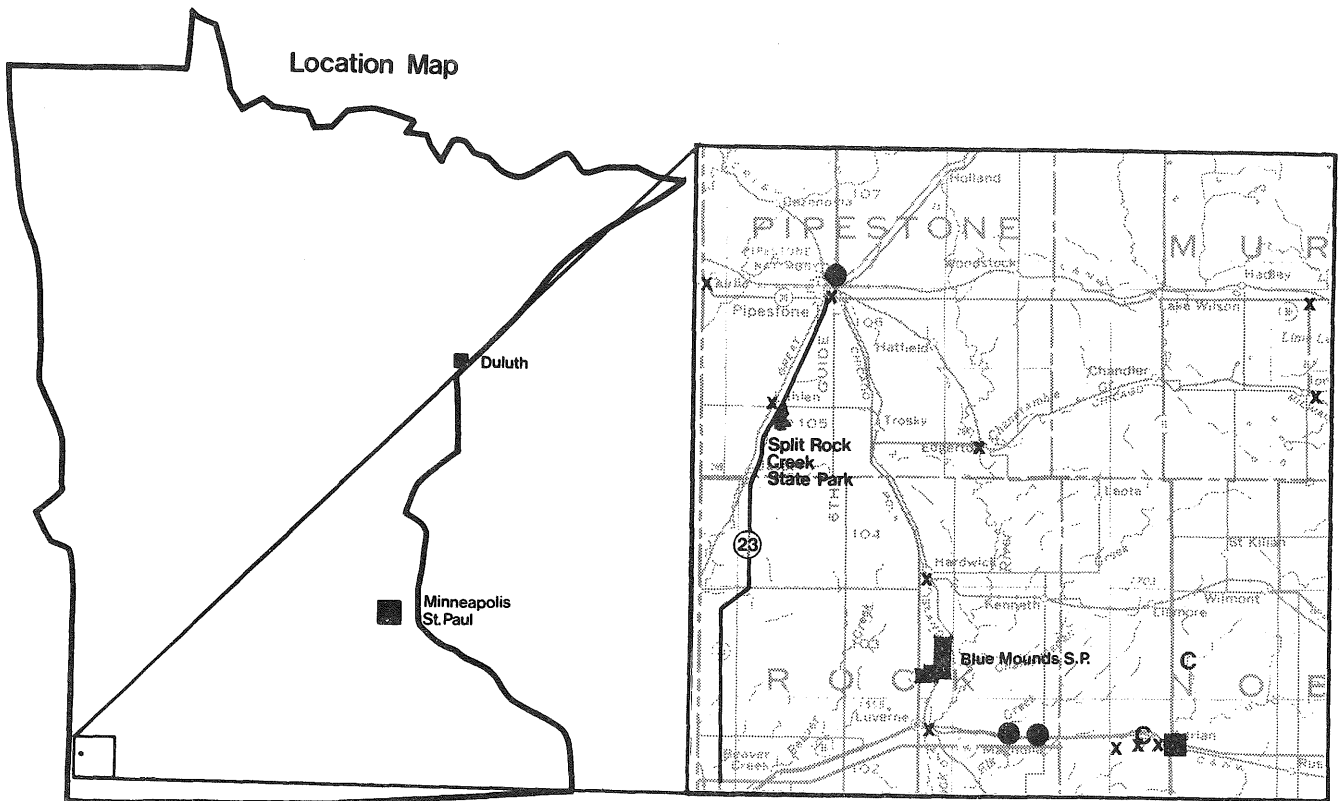
### Interpretive Program

- Develop a self-guiding trail and brochure.
- Provide interpretive information in the warming shelter/visitor center.
- Provide information on interpretive facilities in the area.

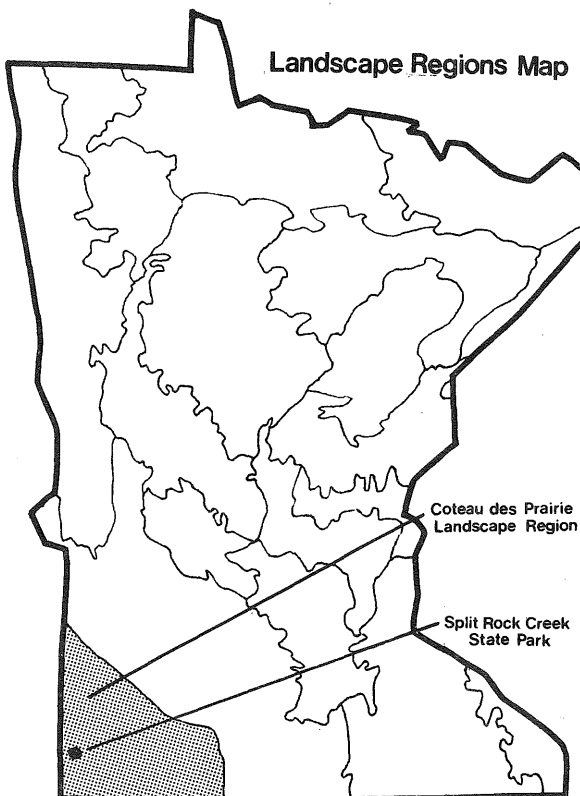
### Park Boundary

- Expand the statutory boundary.
- Correct the southern boundary fence line.

Location Map



Landscape Regions Map



#### Coteau des Prairie Landscape Region

The coteau is a high prairie ridge of rolling hills which forms the drainage divide between waters of the Minnesota and Missouri rivers. It extends diagonally across the southwestern corner of Minnesota from the northwest to the southeast. Local relief is most prominent near the South Dakota border, where the elevation reaches almost 2,000 feet, nearly 400 feet higher than the wet prairie to the east. Near the Iowa state line, the ridge drops to 1,600 feet and merges with the wet prairie. The ridge core is composed of very old bedrock, but it has been capped by a glacially deposited clay moraine. Virtually all the region was covered by prairie vegetation. A few major streams support floodplain hardwoods. Except in areas where rocky soils prevented cultivation, most of the original prairie vegetation is gone.

Classification





There is a delicate balance which must be maintained when recreational facilities are provided for large numbers of people in areas of outstanding and often sensitive resources. Inappropriate development can result in irreparable damage to the resource. To help ensure this recreation/resource balance, the Minnesota state legislature established, through the Outdoor Recreation Act of 1975 (ORA), a classification process whereby each unit in the state recreation system can be identified as one (or more) component in the system. These components are: natural state park; recreational state park; state trail; state scientific and natural area; state wilderness area; state forest and state forest sub-area; state wildlife management area; state water access site; state wild, scenic, and recreational rivers; state historic site; and state rest area. Included in this legislation are general criteria for classifying, planning, and managing each of these components.

#### Criteria for a Recreational State Park Designation

DNR policy identifies four criteria based on ORA which a park must substantially meet to qualify for classification as a recreational state park. Split Rock Creek State Park meets these criteria.

"Possess natural resources, or artificial resources in a natural setting, with outstanding outdoor recreation potential.

"Provide outstanding outdoor recreational opportunities that will attract visitors from beyond the local area.

"Contain resources which permit intensive recreational use by large numbers of people and be of a size sufficient to provide for effective management and protection of the natural and/or artificial outdoor recreational resources, so that they will be available for both present and future generations.

"Be located in areas where they appropriately accommodate the outdoor recreational needs of the state population, provided that they complement but are not in place of recreational service normally offered by local or regional units of government or the private sector."

#### Recommended Classification

Split Rock Creek does not meet the criteria for a natural state park. It may meet the criteria for a recreational state park but only marginally. Because of its recreational resources and visitation patterns, the park functions more on a regional basis, serving people in extreme southwestern Minnesota and adjacent Iowa and South Dakota. For the present time, the park should be classified as a recreational state park and development should be implemented as recommended in this plan. However, if Pipestone County expresses a desire to operate the park, or park visitation becomes even more regional in nature, the DNR, Division of Parks and Recreation should attempt to transfer title of the park to the county. Development should proceed as recommended because the proposed facilities are badly needed. In addition, improving the recreational and administrative/support facilities could improve the feasibility of the county taking over the operation of the park.

#### GOAL FOR THE PARK

The goal for Split Rock Creek State Park follows the overall goal for recreational state parks as stated in the DNR policy.

"It is the goal of the Department of Natural Resources in recreational state parks to:

"Provide lands and waters which offer a broad selection of outdoor recreational activities in a natural setting and which may be used by large numbers of people."

# Park Resources





## RESOURCE INVENTORY

### Soils

Silty clay loams of the Moody-Trent-Whitewood association underlain by glacial till and a bedrock of Sioux quartzite make up the majority of soils within Split Rock Creek State Park. The remainder of the park is comprised of the Brookings, Buse-Sioux, Ihlen, Rauville, and Vienna series. The eastern shore of Split Rock Lake is composed of the Lamoure series which have severe wetness limitations because of poor drainage properties.

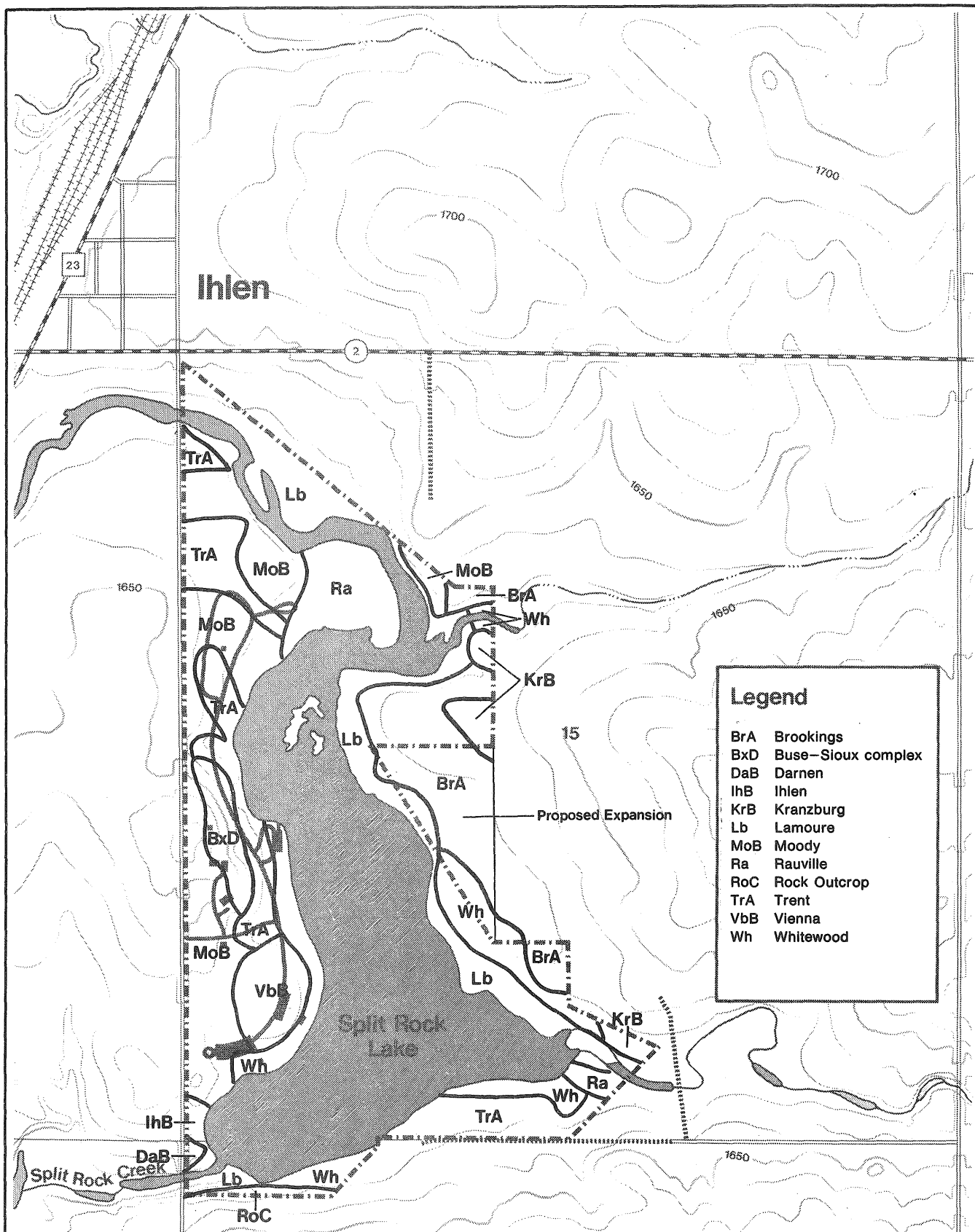
### Water Resources

Split Rock Lake was created in 1938 by the construction of a dam on Split Rock Creek. The lake has a maximum depth of 20 ft and an average depth of about 6 ft. The drainage basin of the lake is 41 sq miles. It is the only lake in Pipestone County.

Agriculture is the dominant land use of the surrounding area, with only two type 5 wetlands (totaling 94 acres) and one type 4 wetland (totaling 18 acres). Split Rock Creek is part of the Missouri-Des Moines drainage basin. The Minnesota Pollution Control Agency (PCA) identified sedimentation and high nutrient levels as water quality problems in this drainage basin.

Summer algal blooms have been reported in the past. Turbidity in the lake resulting from erosion, algae growth, and rough fish action may be a limiting factor for submergent plant growth, leading to a decrease in the amount of food available for waterfowl, fish, and other organisms. (PCA 1978)

Because of the nature of the Sioux quartzite aquifer, wells are often drilled to depths of several hundred feet. Records from several municipalities in the area indicate a range in well depth of 241 to 596 ft. The nearby community of Ihlen drilled its well to a depth of 406 ft. Although high nitrate levels frequently occur in this portion of the Missouri River basin, water quality testing in the park well indicates a safe, reliable source of water. The city of Ihlen has expressed a desire to explore the possibility of tapping into the park well.



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

**Split Rock Creek State Park**

**Soils**

### Fisheries

The creation of the lake and the subsequent stocking program which began in 1945 has created in the only viable fishing resource in the area. Fishing occurs year-round and is one of the most popular activities in the park. Split Rock Lake is classified as a warmwater-gamefish lake and is presently stocked with walleye, northern pike, largemouth bass, and panfish. Local fishermen also report taking yellow perch and bullheads. Stocking is primarily a maintenance program. There is probably some natural reproduction of panfish and largemouth bass.

Prior to 1976, the lake had low oxygen levels and frequently severe winterkills. During the winter of 1976, Pipestone County installed an aeration system in the lake. It is hoped that the aeration system will improve fish survival and reproduction, thus lowering the intensity of stocking.

### Wildlife

No formal records of wildlife abundance or occurrence have been kept for the park. Wildlife habitat in the surrounding area is very limited for many species. The 1980 roadside wildlife census conducted by the DNR, Section of Wildlife is included in the MPD.

### Vegetation

The presettlement vegetation of the park was a prairie consisting of a mixture of tall and mid grasses on medium to fine textured, well-drained soils. Big bluestem, little bluestem, Indiangrass, greenneedle grass, and porcupine grass were dominant. On steeper slopes little bluestem, big bluestem, needle and thread, and side oats grama dominated. The dominant grasses on wetter sites included bluejoint, prairie cordgrass, northern reedgrass, switchgrass, and prairie sand reed. European settlers plowed parts of what is now the park and mowed or pastured the rest. After the establishment of Split Rock Creek Recreation Area in 1938, plowed fields within the boundaries were seeded to a brome grass mixture and green ash trees were planted in recreational areas.

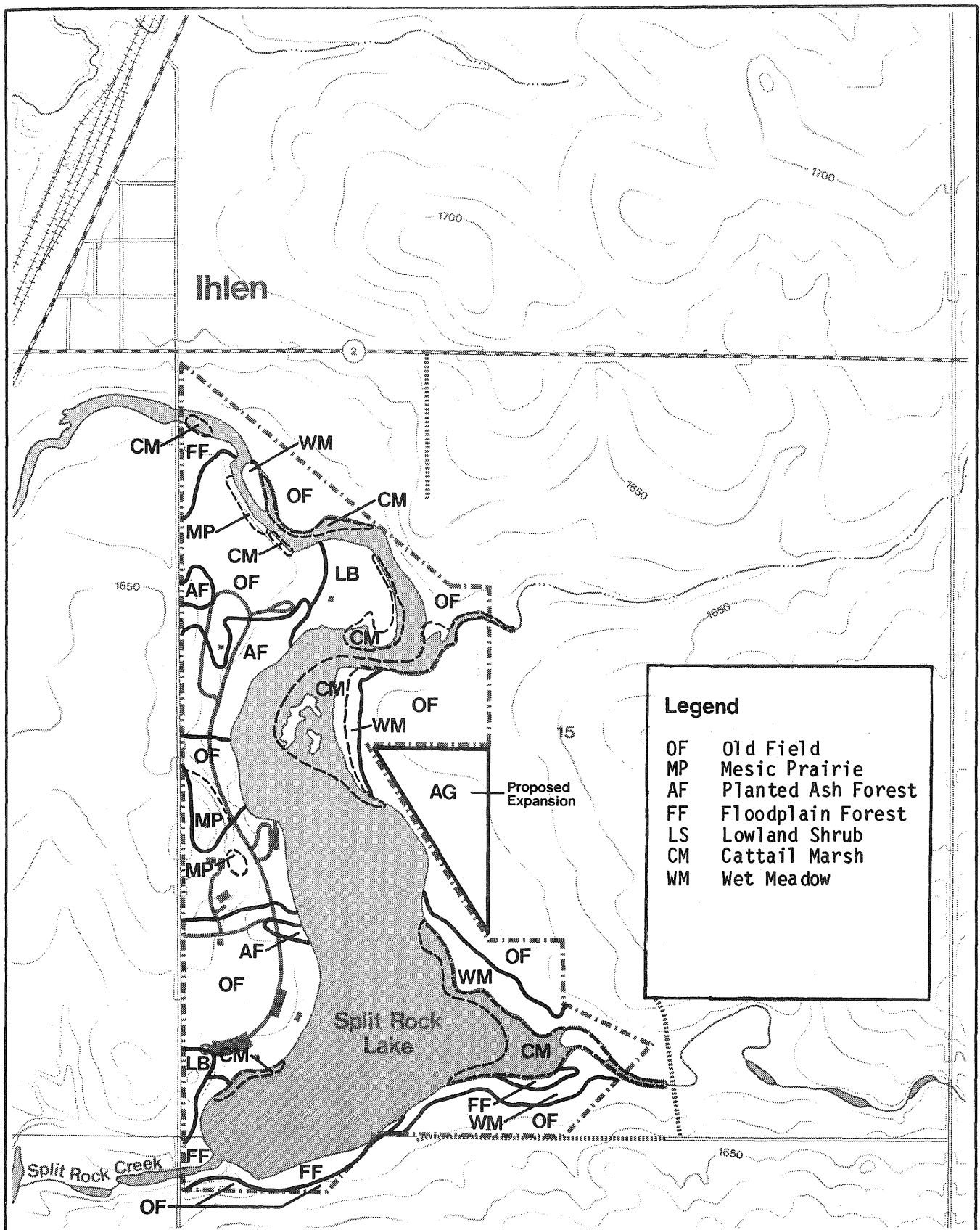
Present plant communities were delineated from 1980 color slides taken by the Agricultural Stabilization Conservation Service (ASCS). (See the Vegetation Map, p 19.) The composition of these communities is described in the general field survey done in December 1980 included in the MPD.

#### Archaeology/History

Recent history in the southwestern corner of Minnesota focuses on the Sioux quartzite quarry within Pipestone National Monument, located approximately 8 miles north of the park. For centuries, Indians of many tribes traveled as far as 1000 miles to the quarry to gather chunks of pipestone from which they carved peace pipes and other ceremonial objects. The highly valued pipestone attracted Indians from all directions. There is a possibility that visiting tribes passing through the Split Rock Creek region on their way to and from the quarry camped in or near the park.

There have been no archaeological surveys in the park. The Rock River drainage area, which begins 6 miles east of the park was surveyed by the Minnesota Historical Society (MHS) in 1979. Twenty-four sites and various "find spots" were located. Several of these are within 8 miles of the park. Most artifacts were located on hills overlooking creekbeds. The rises overlooking what is now Split Rock Lake may very well hold similar finds.





#### Legend

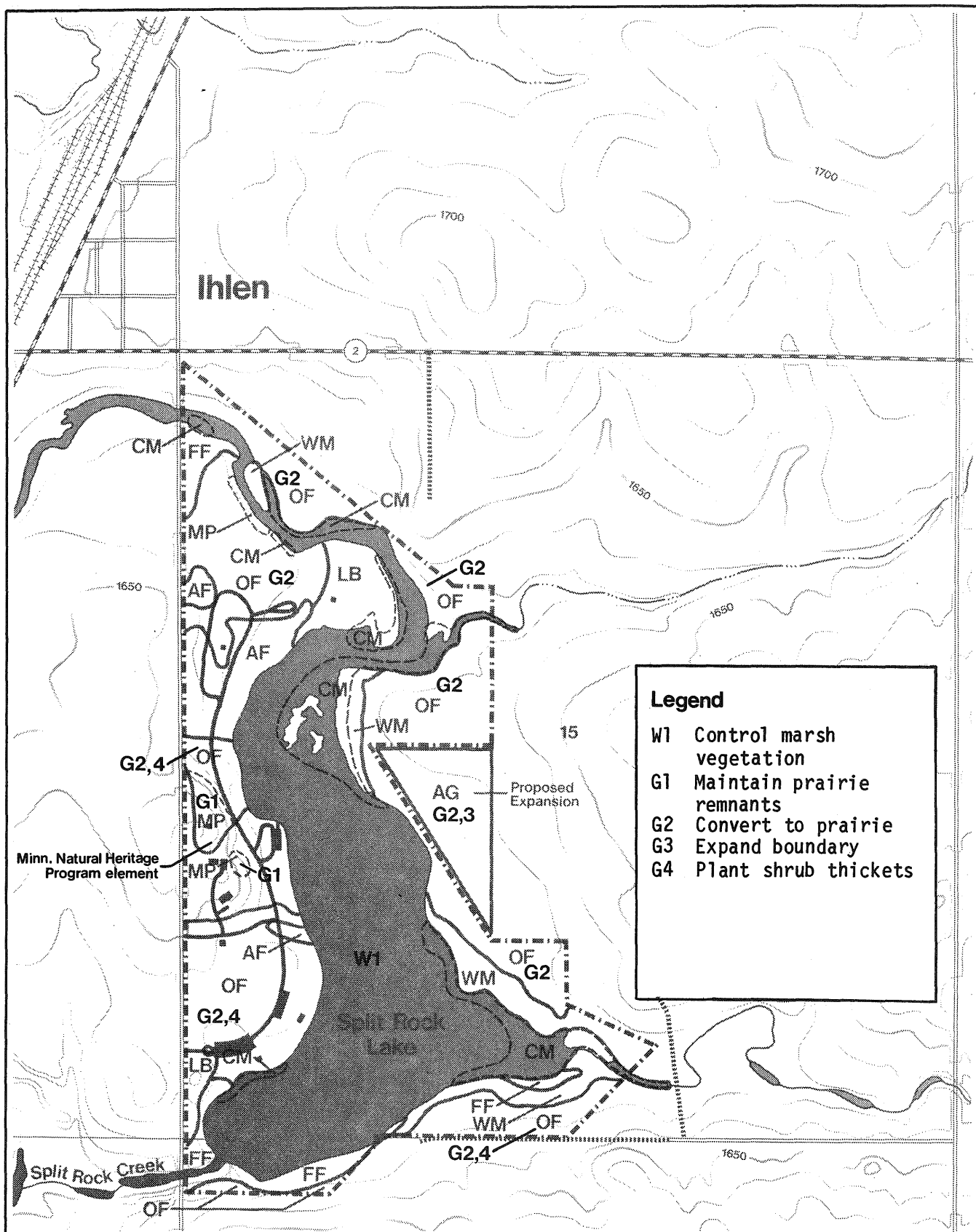
- OF Old Field
- MP Mesic Prairie
- AF Planted Ash Forest
- FF Floodplain Forest
- LS Lowland Shrub
- CM Cattail Marsh
- WM Wet Meadow



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


**Split Rock Creek** State Park

**Vegetation**



**Legend**

- W1 Control marsh vegetation
- G1 Maintain prairie remnants
- G2 Convert to prairie
- G3 Expand boundary
- G4 Plant shrub thickets



**N**

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

Miles

## Split Rock Creek

State Park

## Vegetation Management

#### RESOURCE MANAGEMENT OBJECTIVES

Resource management in the park will follow the overall objectives for recreational state parks as stated in the DNR Manual, Section 1.8-9. Specific resource management objectives for Split Rock Creek State Park are:

To collect in-depth soils data where necessary

To locate developments on soils suitable for the intended use

To maintain Split Rock Lake at its highest potential level

To provide year-round fishing opportunities

To raise to an optimum level the kinds, range, amount, and quality of wildlife and wildlands-oriented recreation

To ensure, in a natural state, the survival of any element identified by the Minnesota Heritage Program

To manage wetlands for a maximum amount and diversity of wildlife

To manage grasslands for optimum wildlife habitat

To restore areas of native prairie

To manage forests for wildlife habitat and the enjoyment of park users

To protect and preserve all prehistoric and historic sites in the park

# RESOURCE MANAGEMENT

Action	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
1 Conduct detailed soil analysis.		\$ 4,000			
2 Repair the dam.	\$ 50,000				
3 Prepare lake bottom contour map.	To be done by DNR, Section of Fisheries				
4 Maintain lake water records.	No development cost				
5 Conduct a study of fishery and lake water quality.	To be done by DNR, Division of Fish & Wildlife				
6 Manage cattail marsh.	Dependent on selected management technique				
7 Maintain prairie remnants.		1,000	\$ 1,000		\$ 1,000
8 Restore grasslands east and northwest of lake to prairie.		1,000	1,000		1,000
9 Plant native shrub thickets.		6,000	2,000		
10 Plant trees along CSAH 20, near the contact station, in and around campground, and along east shore of lake.		10,000			
11 Maintain tree snags for wildlife.	No development cost				
12 Check development sites for archaeological/historical significance before construction.		1,000			



# Physical Development and Recreation Management



#### RECREATION MANAGEMENT OBJECTIVES

Recreation management objectives for Split Rock Creek State Park are those of all recreational state parks in the system, namely:

To coordinate park development with other private and public facilities in the vicinity

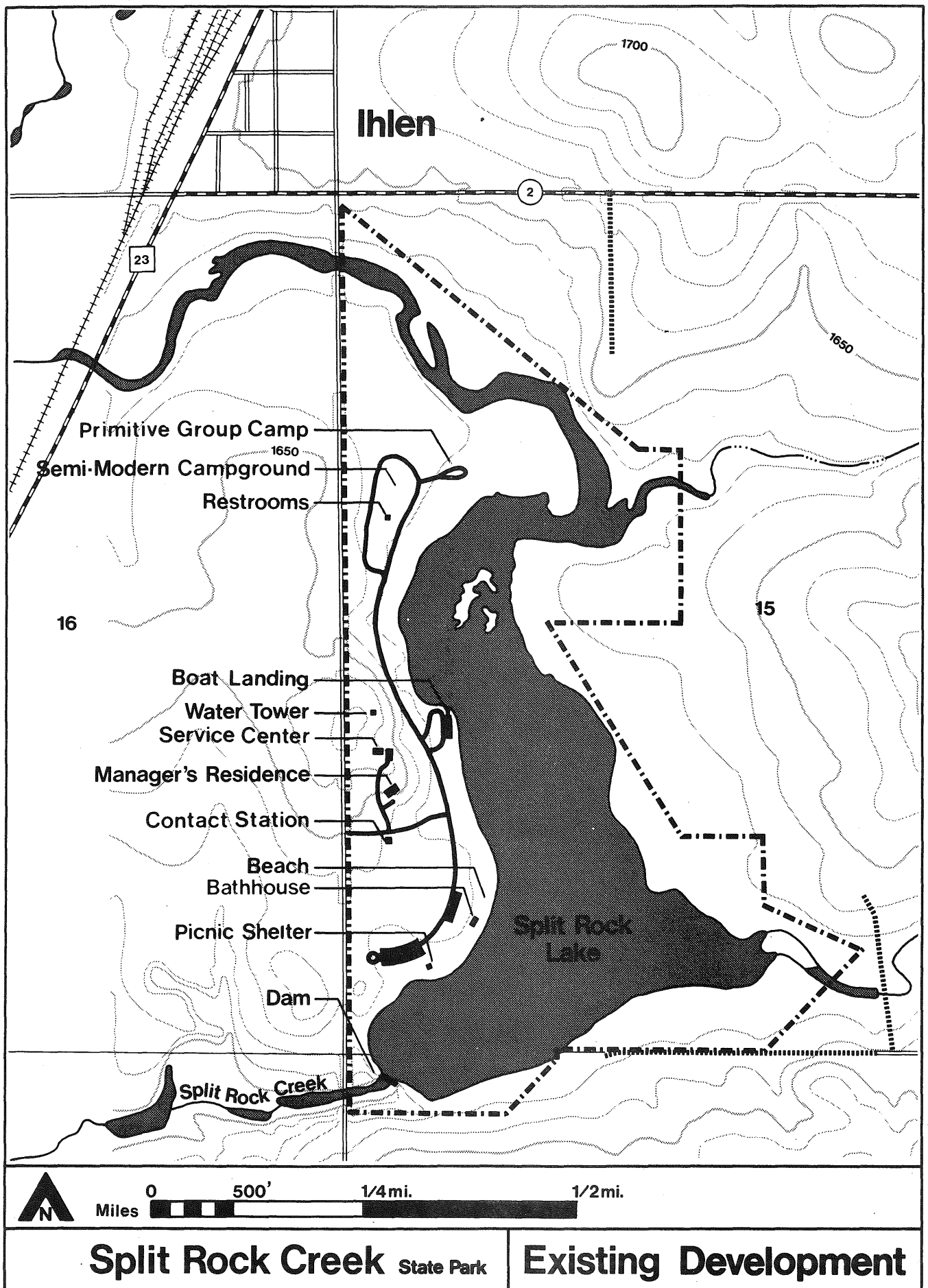
To limit park development to that which is necessary for efficient management and for the public to experience, study, and enjoy the natural resources

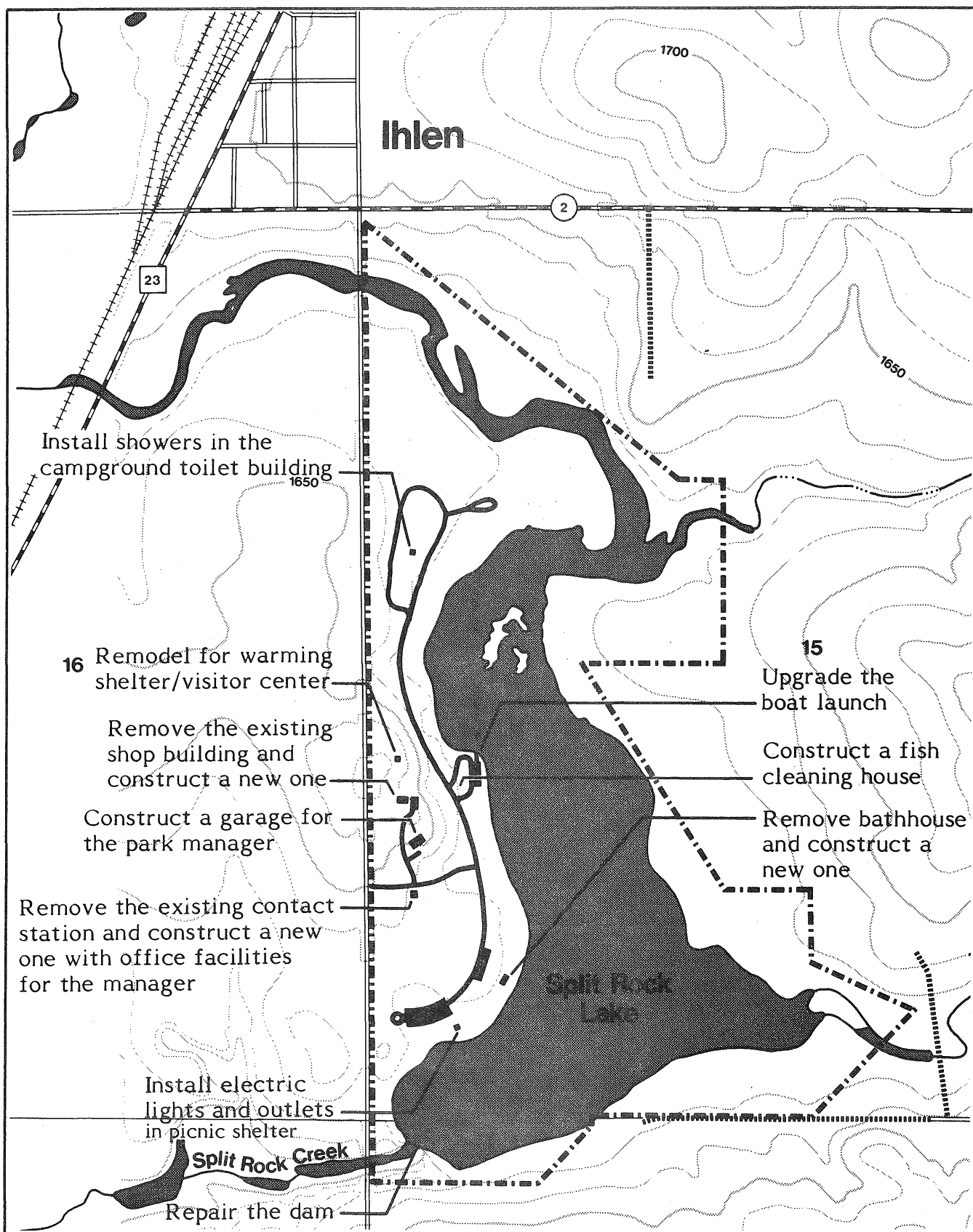
To locate park development where it will have the least impact on sensitive natural or historic resources, will not detract from the enjoyment of other users, and will allow easy access to areas of high scenic or study value

To ensure physical accessibility and program usability of new developments by special populations (i.e., persons with physical disabilities, the elderly, or the very young)

#### ARCHITECTURAL THEME

Currently there is no architectural theme in the park. Since three major building will be replaced (see Proposed Development, p 28), this will be an excellent opportunity to establish a theme. All buildings should be integrated into the surrounding landscape with low profiles; naturally textured or earth-toned stained or painted exterior surfaces; and use of energy conservation features, such as: sun/wind orientation, maximum insulation, earth sheltering, passive and active solar space and water heating, and supplemental wood heat.





**Split Rock Creek** State Park

**Proposed Development**

# PROPOSED DEVELOPMENT

Action	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
1 Install showers in campground sanitation building.		\$ 20,000			
2 Install electric lights and outlets in picnic shelter.			\$ 2,000		
3 Determine trail alignment to provide access to east side of lake.	(\$ 40,000 around north side - does not include cost of easement) (\$100,000 around whole lake)				
5 Remodel water tower.		10,000			
6 Construct new bathhouse.		80,000 (more, if additional facilities provided.)			
6 Upgrade boat launch.			8,000		
7 Construct fish cleaning house.		13,000			
8 Construct contact station/manager's office.		50,000			
9 Construct shop building				\$ 75,000	
10 Construct gas/oil storage building.			8,000		
11 Construct garage at manager's residence.			10,000		
12 Bury electrical lines.			1,500		
13 Develop self-guided interpretive trail and brochure.			2,000		
14 Provide interpretive information in warming shelter/visitor center.			2,000		
15 Provide information on other interpretive facilities in the area.		No development cost.			

# Park Boundary





OBJECTIVE:

To provide sufficient acreage to protect and perpetuate the natural resources and provide necessary recreation facilities to interpret and enjoy the resources, without including acreage that would be unreasonable to purchase

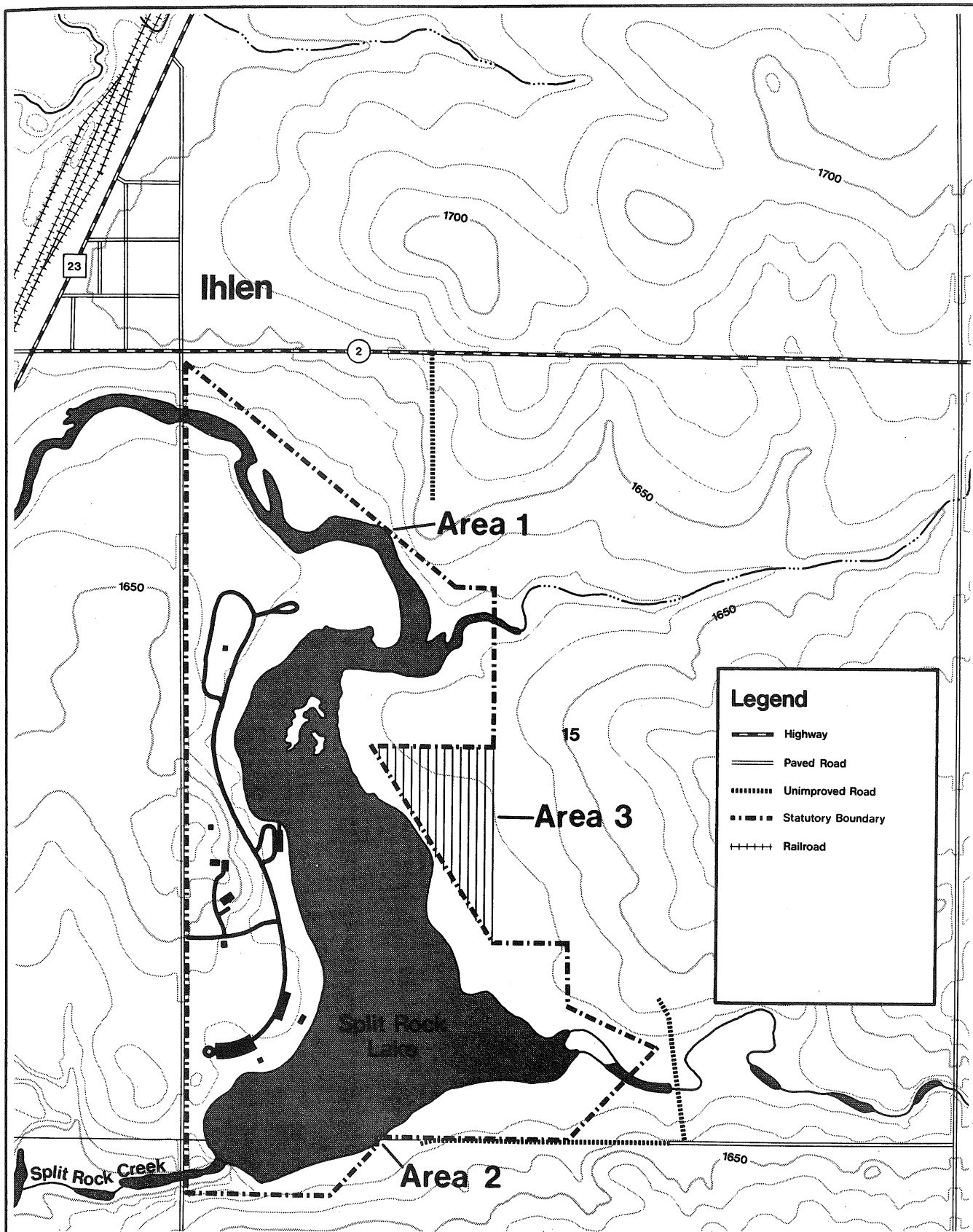
All land within the current statutory boundary is in state ownership. This plan recommends that the statutory boundary be expanded to include park quality lands as delineated on the Boundary Adjustments Map, p 32. The Division of Parks and Recreation can only purchase land within a park statutory boundary. Such purchase can only occur only when there is a willing seller and acquisition funds are available.

There are three areas adjacent to the park where expansion is being recommended. Two of these areas (numbers 1 and 2 on the Boundary Adjustments Map, p 32) are points where private ownership extends to the edge of the lake. This situation prevents development of a trail around the lake as proposed in the Development Section. At present, both landowners permit park visitors to use their land along the lake shore in order to reach other portions of the park. However, this is an inconvenient situation for the landowners and presents certain legal access problems which should be corrected. In both areas, the expansion and trail easement or fee title purchase would be very small, perhaps only a few hundred square feet.

Area #3 is currently being used for crop production. This acreage would add valuable wildlife habitat and facilitate grassland management. Improved wildlife habitat would enhance wildlife observation in a natural setting for park visitors. In addition, purchase of this land would allow placement of the proposed trail on soils more suitable for recreational development. The area would be a scenic buffer between the park and adjacent farm fields. This screening would be further enhanced by planting trees along the east shore of the lake.

# BOUNDARY ADJUSTMENTS

Action	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
1 Expand statutory boundary.	No development cost.				
2 Correct southern boundary fence line.	\$ 2,000				



**Split Rock Creek State Park**

**Boundary Adjustments**



