

A Summary of the
Flandrau
State Park
Management Plan

Minnesota Department of Natural Resources
Office of Planning

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Introduction

THE PLANNING PROCESS

In 1975 the 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 for a 60 day review period. (This management plan was approved in June 1981.)
6. The plan is implemented by the DNR, Division of Parks and Recreation.

A SUMMARY OF MANAGEMENT AND DEVELOPMENT PROPOSALS

Resource Management

- Remove dead and diseased elm trees that are a safety hazard in use areas.
- Establish tree planting and prairie restoration programs.
- Maintain an abundance of snags (dead standing and downed trees) for wildlife.
- Survey all development sites for archaeological significance prior to construction and incorporate all information into the park interpretive program.

Flandrau Dam

- Remove some of the remaining portions of the dam.

Access and Visitor Contact

- Sign entrance road to enhance bicycle safety.
- Construct new contact station/park office.
- Develop hiking trail connections from New Ulm to the park.

Camping

- Install electrical hookups and plant shade trees in semi-modern campground.
- Rehabilitate the sewage system in structured group camp.
- Retain barracks, but maintain them with minimal funding.
- Develop a canoe campsite.

Picnic Ground/Swimming Pond

- Remodel bathhouse and swimming pond.
- Develop a canoe access in the vicinity.

Trails

- Close the horseback trail.
- Realign the snowmobile trail.
- Develop a ski touring trail system.
- Construct a small bridge at dam. Develop a canoe portage around dam.
- Remodel small shelter in campground for a winter trail warming shelter.

Administrative/Support Facilities

- Construct an unheated storage building.
- Construct a gas and oil storage building.
- Fence the service yard.
- Remove Field Services shop, sign shop, and storage shed and revegetate the area.
- Bury all electrical lines.
- Plant vegetative screening around manager's residence.

AN OVERVIEW OF FLANDRAU STATE PARK

Flandrau State Park is located in northeastern Brown County in south central Minnesota, adjacent to and partially within the city limits of New Ulm. The city of Mankato is 28 miles (45 km) to the southeast and the Twin Cities metropolitan area is approximately 100 miles (160 km) to the northeast. Trunk Highway 14 (TH 14) provides access from the north and south.

The deep glacial deposits (up to 150 ft/46 m) in the area provide an excellent base for agriculture. Winding through this flat, rich farmland is the dramatically contrasting, forested Minnesota River valley which was eroded into the glacial deposition by the rushing meltwaters of the Glacial River Warren, and later, to a lesser degree, by the Minnesota River. Flandrau State Park is located in an adjacent, smaller valley which was eroded by the Cottonwood River, a tributary of the Minnesota River.

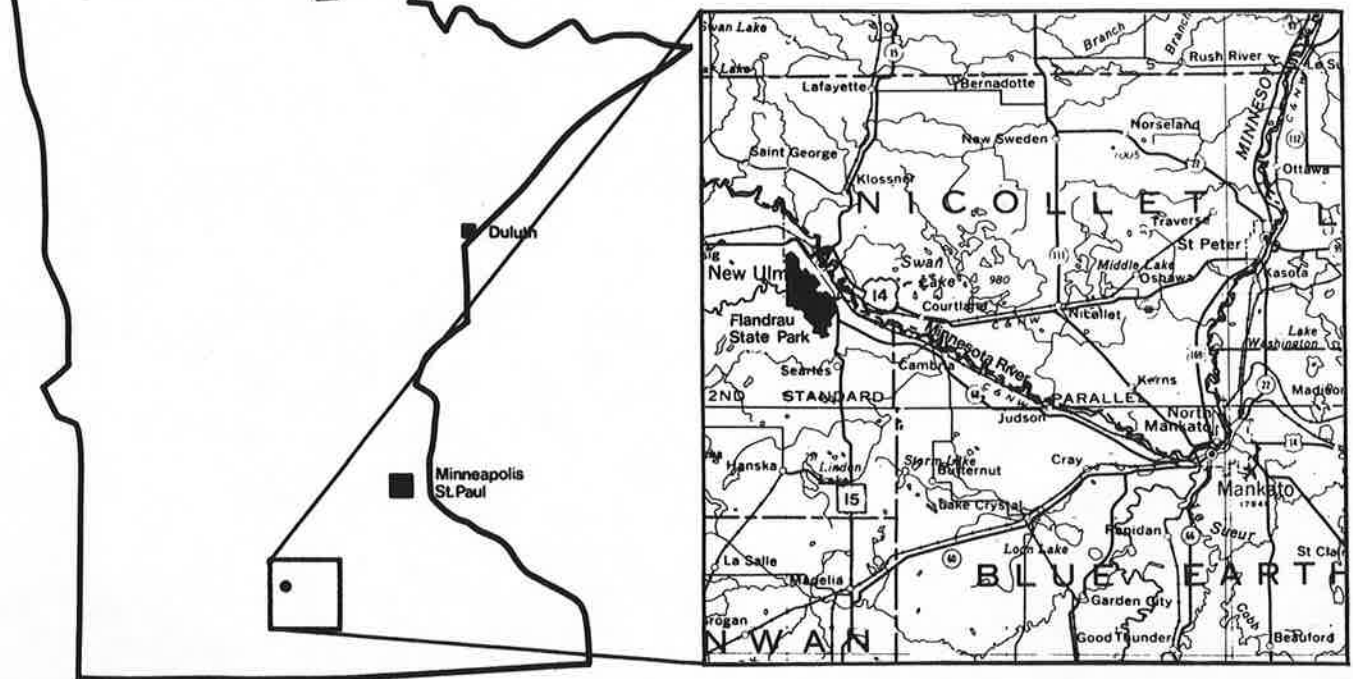
The vegetation of Flandrau consists of lowland hardwoods and grasses with scattered marshes on the valley floor. The valley slopes are forested with northern hardwoods such as maple, ash, and walnut. The blufftops are primarily oak interspersed with a few parcels of native prairie.

The park offers a variety of activities for both day visitors and campers. Recreational facilities include a picnic ground, a swimming pond, a semi-modern campground with 57 sites, a structured group camp with a capacity of 100, a primitive group camp, and 8 miles (13 km) of trails. Three miles (5 km) of these trails are used for snowmobiling during the winter and horseback riding in the summer. An interpretive center is operated from June until September.

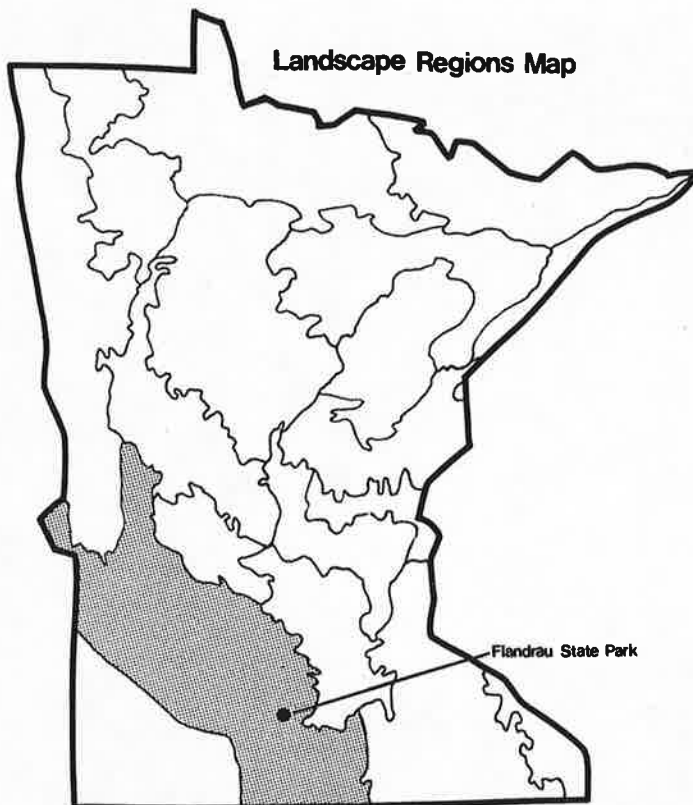
The relationship of Flandrau State Park to other recreational facilities and population centers in the area was analyzed to assess the demand for particular recreational opportunities and to determine how the park should function in fulfilling this demand. The recommendations for development of the park were based on this analysis. A complete discussion of the regional analysis of the area surrounding the park is included in the comprehensive management plan.

The landscape region system divides the state into 18 regions (see map, p 9). These regions are differentiated according to the characteristic plant and animal life, landforms, and cultural patterns which existed before, during, and after European settlement. This system provides valuable information for planning Minnesota's state parks. Flandrau is in the Upper Minnesota River Country Landscape Region.

Location Map

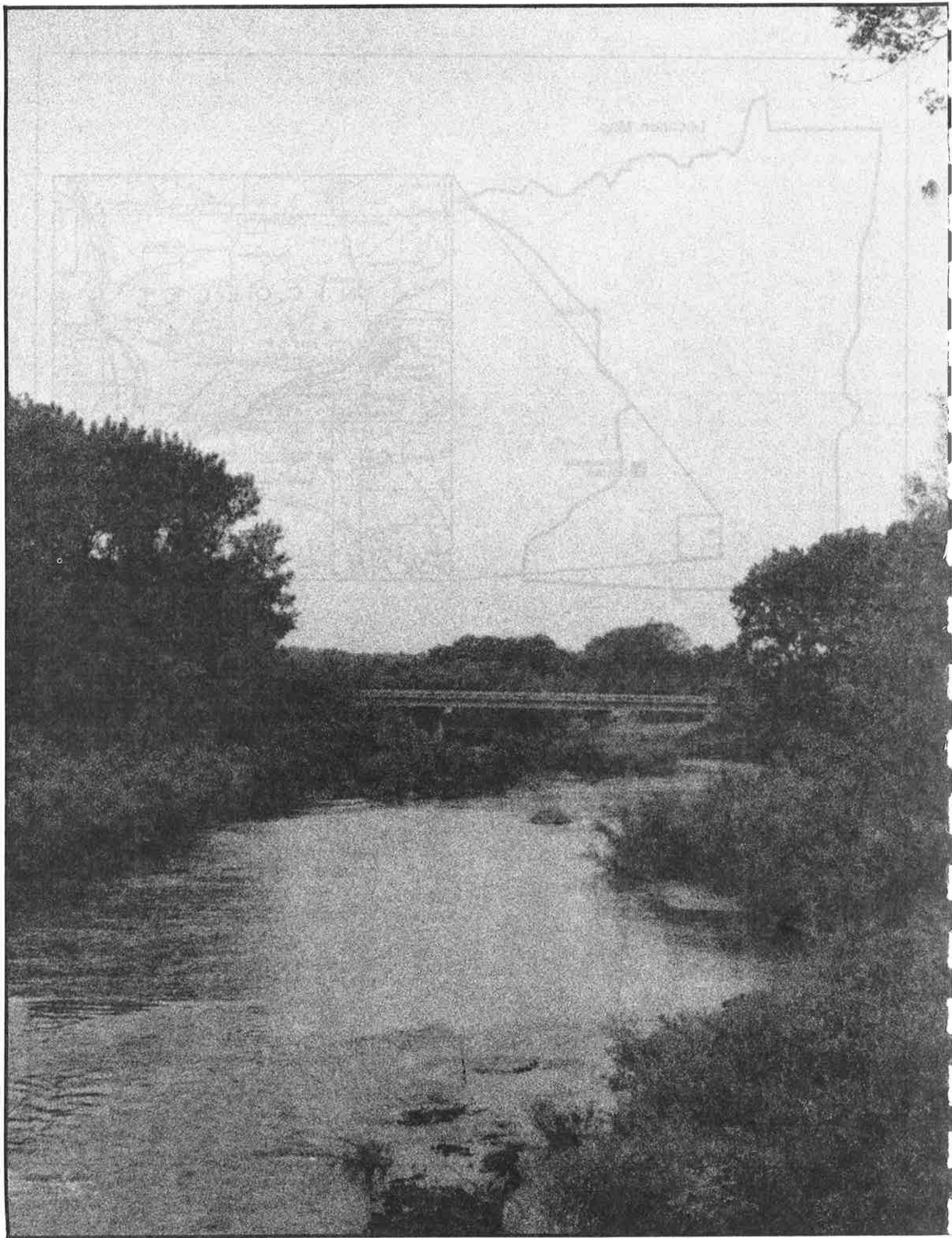


Landscape Regions Map



Upper Minnesota River Country
Glacial River Warren, flowed out of glacial Lake Agassiz. It cut and shaped what is now the Minnesota River valley. The torrents of water cut a trench 100 to 250 feet deep into glacial deposits exposing bedrock in several places. As is typical of most glacial river valleys, the present Minnesota River flows through a valley it would have been incapable of cutting.

Most of the river valley floor was originally forested with a flood-plain type of hardwood forest. The western part of the valley tended to have mostly prairie vegetation, while the eastern part of the valley was heavily wooded. Much of the original vegetation has been cleared for agriculture.



Classification

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. Flandrau 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

Because Flandrau State Park substantially meets these criteria, it is recommended that the park be classified as a recreational state park.

GOAL FOR THE PARK

The goal for Flandrau 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

PARK RESOURCES

Soils. The valley floor, all of which is within the 100 year floodplain, is characterized by water-deposited soils which are finely textured, silty loams and loam sands. The flooding potential and high water table make much of the valley unsuitable for development. Generally, existing park developments are located on suitable soils.

The valley walls are steep and susceptible to erosion. Trails with carefully laid out alignments and erosion resistant construction techniques can be developed along the valley slopes.

Vegetation. Since settlement, vegetation in the park has undergone several changes. Wildfire suppression which accompany settlement resulted in sumac taking over many prairie areas in the park. Much of the river bottom forest was removed for farming. Most of the remainder was cleared for Cottonwood Lake when the dam was built in 1938. Since the final failure of the dam in 1969, dense clusters of young trees and shrubs have grown up on the former lake bottom. Finally, Dutch elm disease has taken a heavy toll, especially in the structured group camp and picnic ground.

Wildlife. Since most of the area around the park has been developed as residential or agriculture, the park plays an important role as wildlife habitat. Because of this situation wildlife populations should be carefully monitored. This is especially true of white-tailed deer.

If monitoring reveals that park vegetation and adjacent agricultural fields are being damaged, consideration should be given to establishing a food plot on the blufftop south of the Cottonwood River.

An abundance of snags (dead standing and downed trees) should be maintained because they provide excellent habitat for a variety of wildlife.

Surface Water. In the past, water quality in the Cottonwood River has been poor. Only a few times in the past 15 years has it met the minimum safety standards of the Pollution Control Agency for body contact recreation. For this reason, it is unwise to maintain a swimming beach on the river or provide a pond with water diverted from the river. Therefore, well water must continue to be used as a water supply for the swimming pond.

The river is very susceptible to flooding. In fact, three times between 1938 and 1969, the dam was washed out by floods. For this reason, existing structures within the 100 year flood plain should be flood proofed and future developments should be located out of the floodplain.

Groundwater. Groundwater in the park is not optimal, but it is adequate for park needs. No specific management is recommended at this time.

Fisheries. The Cottonwood River supports several species of rough fish and some game fish. Fishing opportunities in Flandrau are limited except for an area downstream from the remnants of the dam. This management plan recommends continuation of management programs currently being implemented by the Section of Fisheries.

Archaeology/History. The Minnesota and Cottonwood river valleys have been used for shelter and human habitation for a long time, probably dating back as far as 7,000 years. During recent history, the area was inhabited by Dakota Indians. In the 1840s and 1850s, a major route of the Red River Oxcart Trail passed through the area, crossing the Minnesota River near the mouth of the Cottonwood River.

The town of New Ulm was established in 1854 by German immigrants. The town has successfully survived many trials including the Dakota Indian attacks of 1862.

Both the Civilian Conservation Corps (CCC) and the Works Progress Administration (WPA) built facilities in the park. During World War II, the structured group camp was used as a German prisoner-of-war camp.

All development sites will be surveyed prior to construction for archaeological significance. Archaeological excavation by qualified agencies will be permitted if archaeological significance is discovered. All information uncovered in the survey should be incorporated into the park interpretive program.

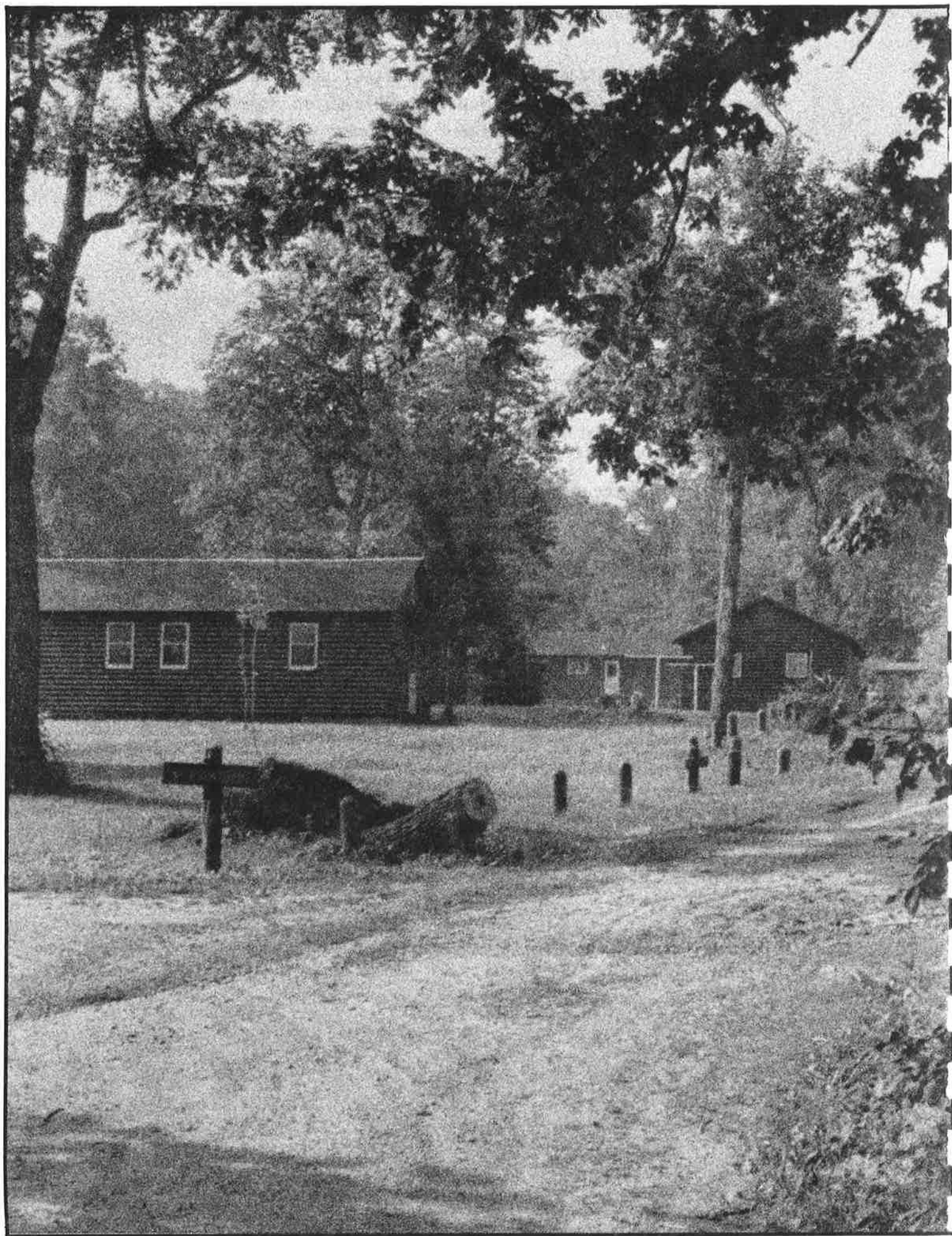
RESOURCE MANAGEMENT OBJECTIVES

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.

RESOURCE MANAGEMENT

Action	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Total
1 Remove dead and diseased elm.		\$ 3,000	\$ 3,000	\$ 3,000		\$ 9,000
2 Establish a tree planting program.		4,000	2,000	2,000		8,000
3 Restore examples of prairie vegetation.		5,000		1,500	\$ 1,500	8,000
4 Screen manager's residence and the service court.		1,000				1,000
5 Survey development sites for archaeological significance.		1,000				1,000



Physical Development and Recreation Management

EXISTING DEVELOPMENT

Campground

57 campsites with picnic
tables and fire rings
Modern toilet building
Small picnic shelter
(trail shelter in winter)

Primitive Campground

33 campsites
2 pit toilets
Well with a hand pump

Group Camp

Mess hall with cooking and
dining facilities
2 modern toilet buildings
8 barracks buildings
Swimming pond
Staff quarters building

Picnic Ground/Swimming Area

Picnic shelter/bathhouse
with toilet facilities
Picnic tables
300 car cap. parking lot
Swimming pond with sand beach

Administrative/Support Facilities

Contact station
Park office
Manager's residence
Assistant manager's residence
Shop building (also used as
regional shop)
2 small storage buildings
Former regional sign shop
(now used by Regional Field
Services)

Trails

4.6 miles (7.4 km) Hiking
3 miles (4.8 km) Snowmobiling
1 mile (1.6 km) Horseback riding

RECREATION MANAGEMENT OBJECTIVES

To coordinate park development with private and other public facilities and resources 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, archaeological 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, and the very young).

PROPOSED DEVELOPMENT

One of the most important tasks of this planning process was determining the future of the Flandrau dam. After extensive research, it was determined that the dam should not be replaced. A complete discussion of this decision is included in the comprehensive plan on file in the Office of Planning.

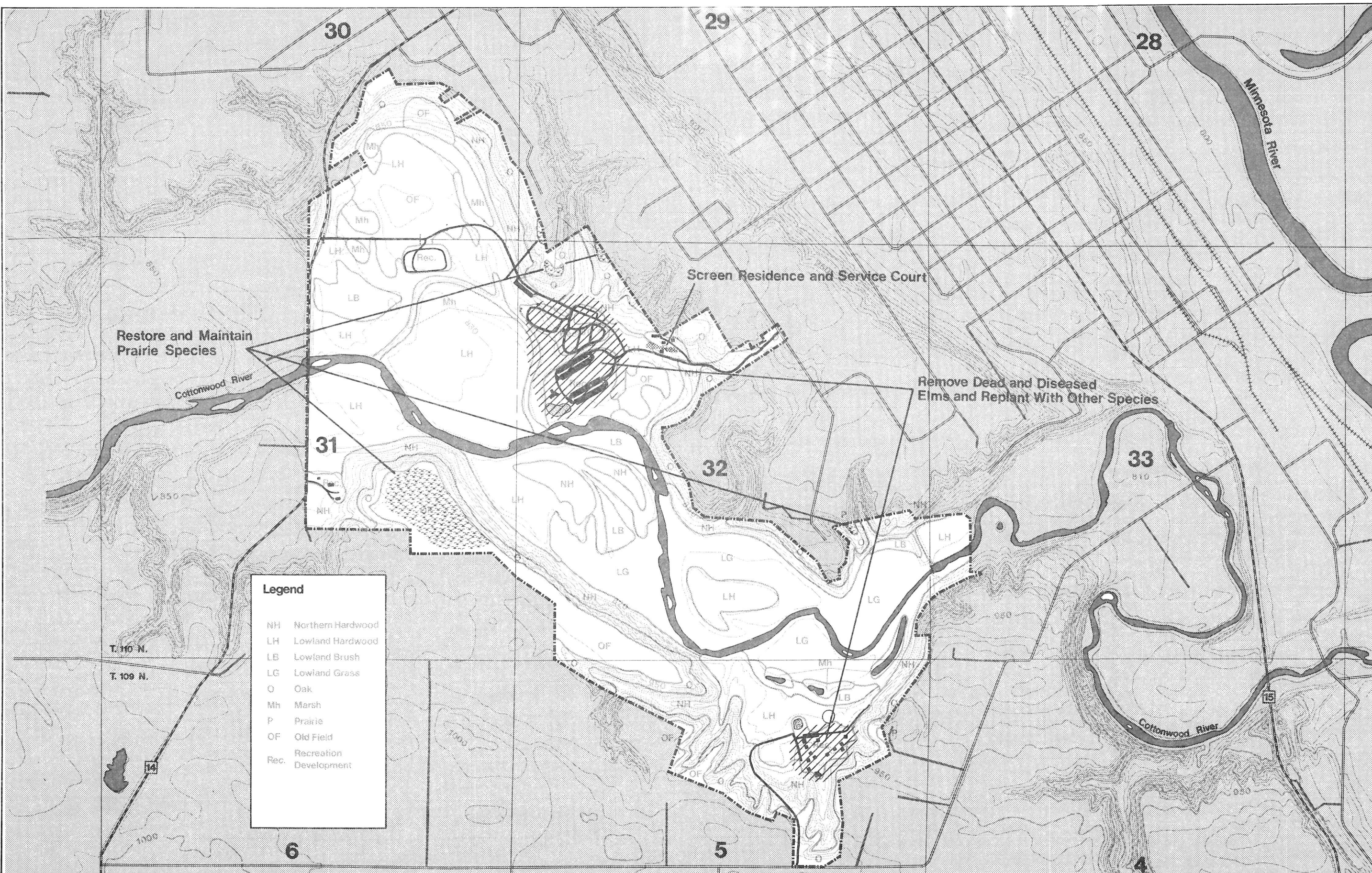
Action	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Total
<u>Flandrau Dam</u>						
1 Remove some remaining portions of the dam for improved visitor safety.		\$ 75,000				\$ 75,000
<u>Access and Visitor Contact</u>						
1 Improve bicycle safety on the park entrance road.		500				500
2 Construct a new contact station/park office.			Covered in Administrative/Support Facilities, Action #1, p 25			
3 Provide trail connections for pedestrian access.			Covered in Trails, Action #7, p 25			
<u>Camping</u>						
1 Install electrical hookups.			\$ 3,500			3,500
2 Plant shade trees.			Covered in Vegetation Management, Actions #1 and #2, p 19			
3 Remodel the small shelter for use as a winter trail warming shelter.			Covered in Trails, Action #6			
4 Redesign the sewage disposal system in the structured group camp.			\$100,000(Estimate) Actual cost dependent on DNR, Bureau of Engineering study.			
5 Retain the barracks buildings with minimal maintenance.			Covered by park operations budget			
6 Develop a canoe campsite.			Covered in Water Activities, Action #2, p 25			
<u>Picnic Ground/Swimming Pond</u>						
1 Rehabilitate the bathhouse.			60,000			60,000
2 Remodel the swimming pond.			\$150,000 (Estimate) Actual cost dependent on DNR, Bureau of Engineering study			
3 Resurface the picnic ground parking lot.		47,000				47,000
<u>Trails</u>						
1 Close the park to horseback riding.			No development cost			
2 Realign the snowmobile trail.			No development cost			

Action	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Total
3 Develop ski touring trails.		\$ 7,500	\$ 7,500			\$ 15,000
4 Construct a pedestrian bridge at the site of the old dam.				\$60,000		60,000
5 Realign a portion of the hiking/ski touring trail system.			1,000			1,000
6 Remodel the warming shelter.		3,000				3,000
7 Provide trail connections for pedestrian access to the park.				\$ 2,000 (Conditional) Dependent on development by of a pedestrian trail outside the park boundary.		
8 Construct a canoe portage around the dam.		1,000				1,000
<u>Visitor Services</u>						
1 Remodel the interpretive center portion of the bathhouse.				Covered in Picnic Ground/Swimming Pond Area, Action #1, p 24		
2 Upgrade the self-guided trail and accompanying brochure.				2,000		2,000
3 Construct two bulletin boards.		1,000				1,000
<u>Water Activities</u>						
1 Develop a canoe access in the vicinity of the picnic ground.		1,000				1,000
2 Develop a canoe campsite.				2,000		2,000
<u>Administrative/Support Facilities</u>						
1 Construct a new contact station/park office.			60,000			60,000
2 Construct an unheated storage building.				60,000		60,000
3 Construct a gas and oil storage building.			8,000			8,000
4 Fence the service yard.			5,000			5,000

Action	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Total
5 Remove the Field Services sign shop and storage shed and revegetate the area.			\$ 2,000			\$ 2,000
6 Bury all overhead electrical lines.				\$ 4,000		4,000
7 Plant trees and shrubs to screen the manager's residence.						

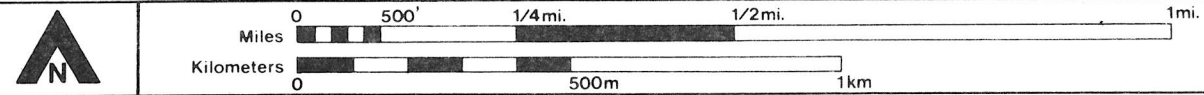
Covered in Vegetation Management, Action #4, p 19

Maps



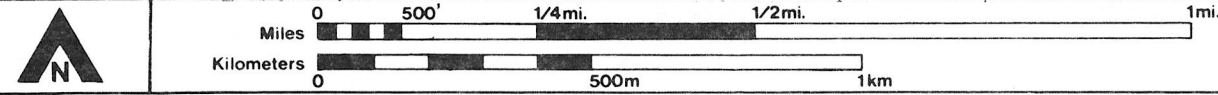
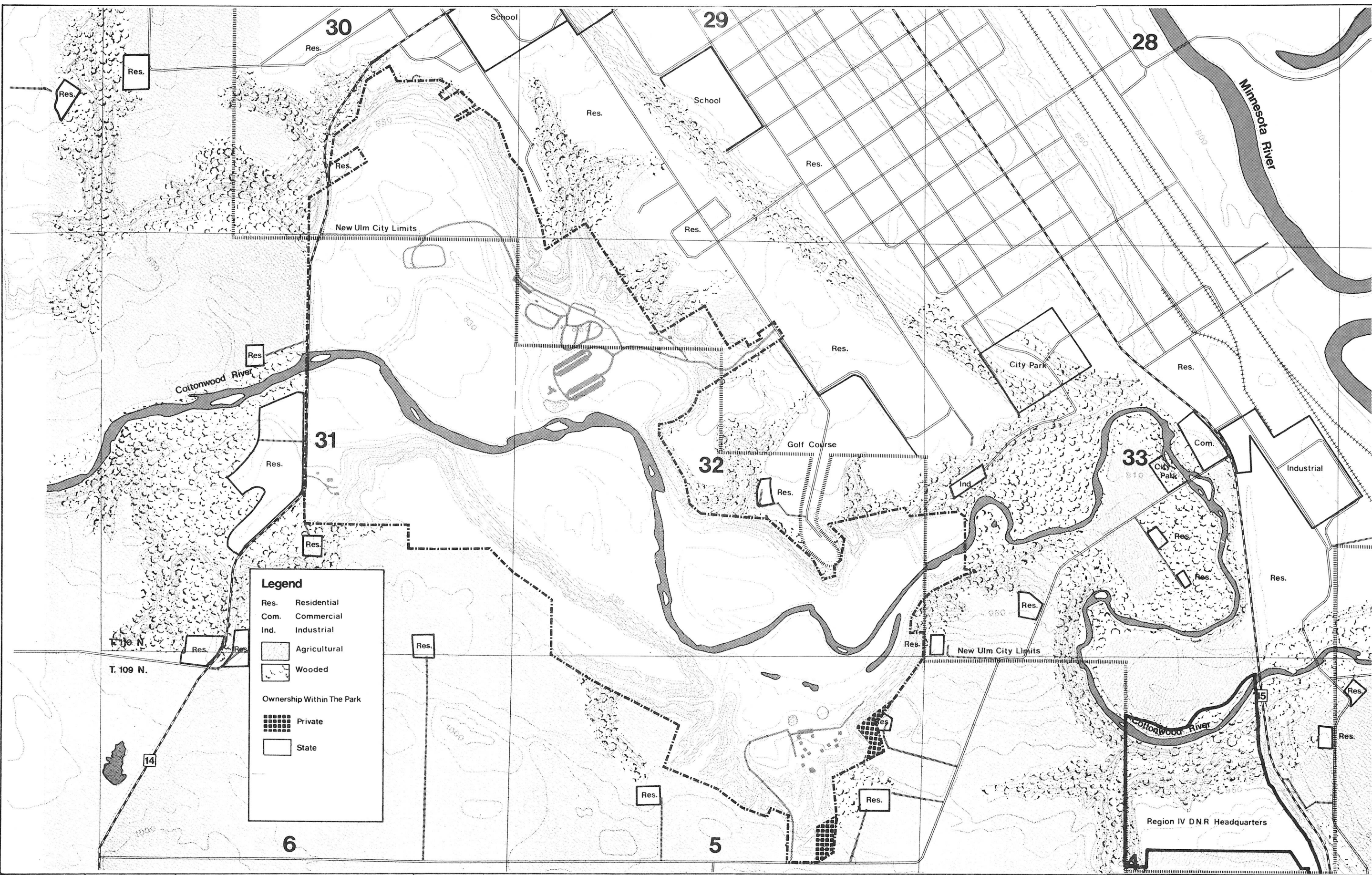
Legend

NH	Northern Hardwood
LH	Lowland Hardwood
LB	Lowland Brush
LG	Lowland Grass
O	Oak
Mh	Marsh
P	Prairie
OF	Old Field
Rec.	Recreation Development



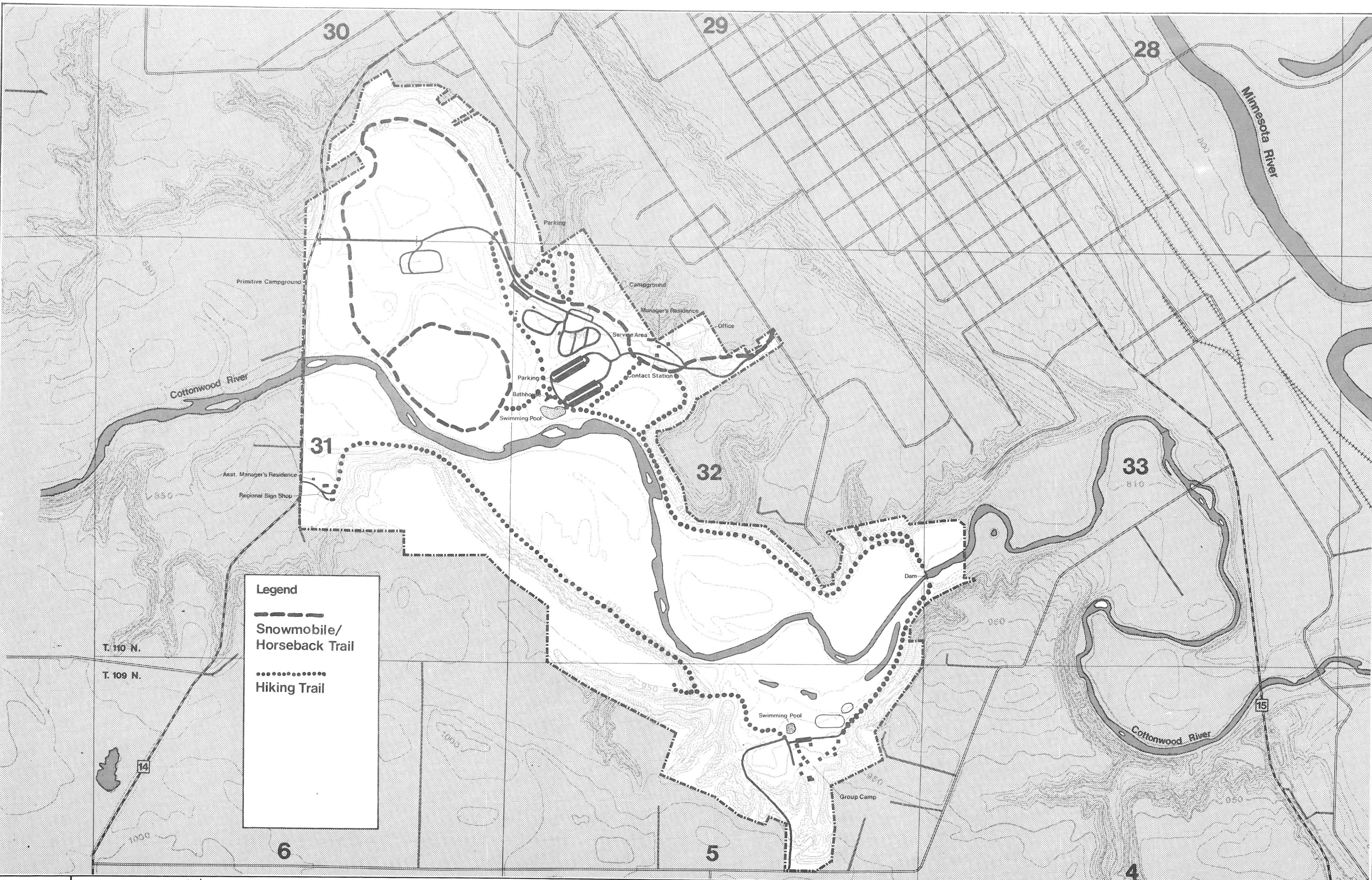
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Vegetation Management



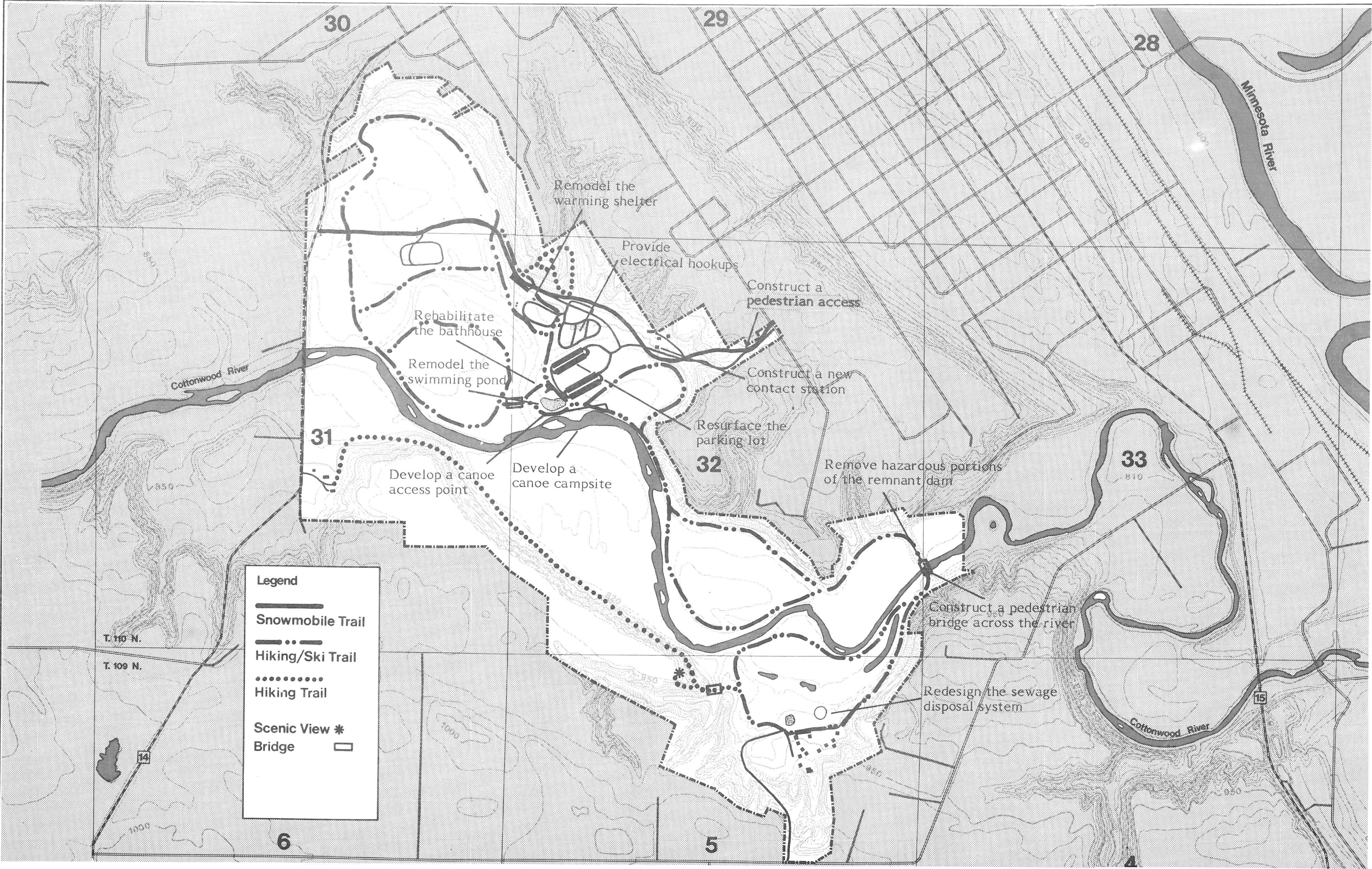
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Ownership & Surrounding Land Use



Flandrau State Park

Existing Development & Trails



Flandrau State Park

Potential Trails & Proposed Development