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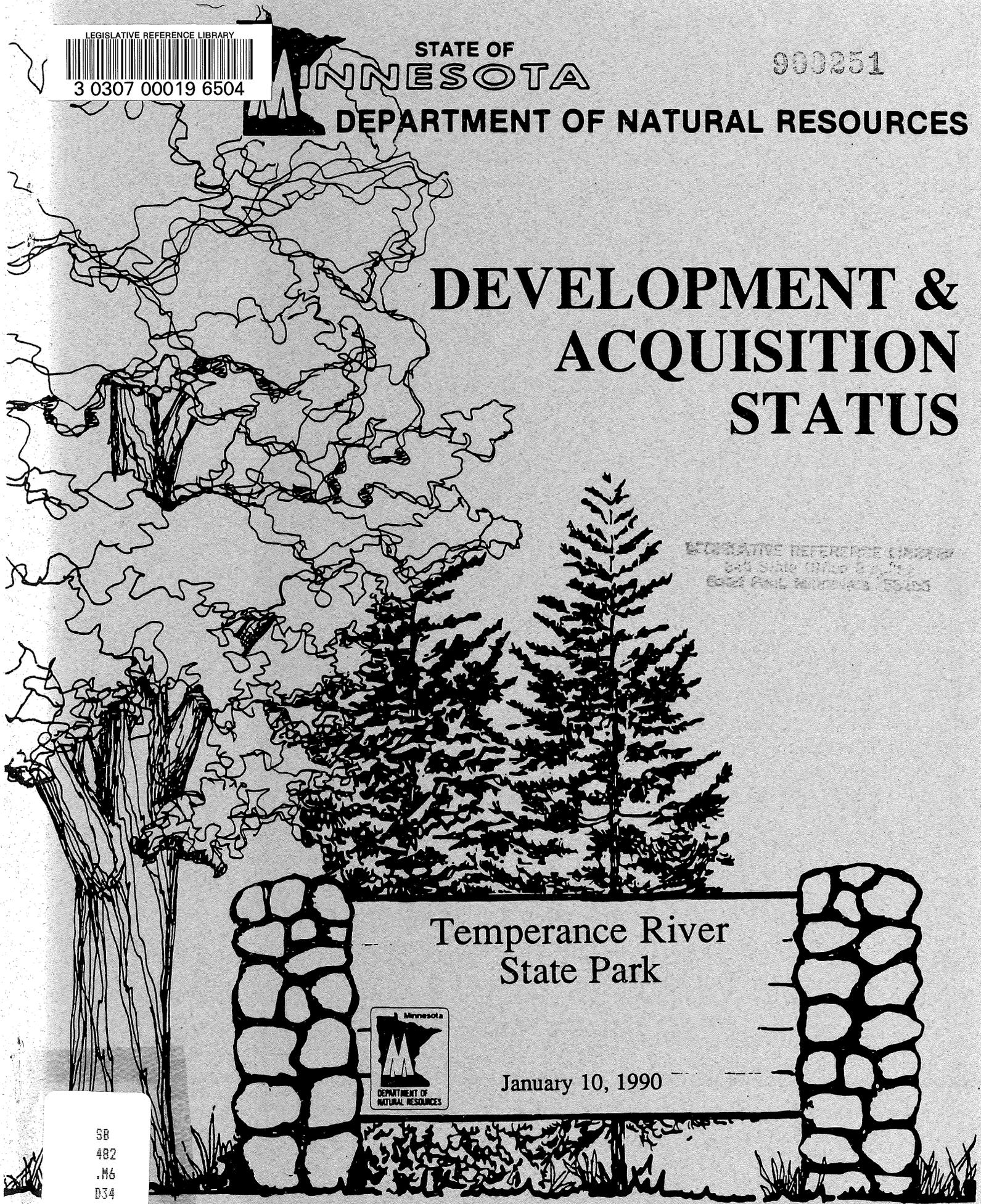
STATE OF
MINNESOTA

933251

DEPARTMENT OF NATURAL RESOURCES

DEVELOPMENT & ACQUISITION STATUS

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601 East Paul Hennepin Avenue, St. Paul, MN 55103



Temperance River
State Park



January 10, 1990

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MINNESOTA STATE PARK SYSTEM

The mission of the Division of Parks and Recreation is to provide a state park system that perpetuates Minnesota's scenic beauty and its natural and cultural resources, while being responsive to public needs and expectations, and providing a diversity of recreational opportunities.

The Division of Parks and Recreation manages 64 state parks across Minnesota. The state park system is vital to Minnesota's tourism, an industry that is becoming the backbone of many economies in greater Minnesota. Our most unique and valuable cultural and natural resources are found within state park boundaries. It is the Division of Parks & Recreation's responsibility to acquire, protect and interpret these unique resources.

Prior to the 1989 legislative session, funding constraints and increasing visitor use seriously eroded the Division of Parks and Recreation's ability to provide quality recreational experiences and services. Since then the Governor and state legislators have responded to the need for increased funding for the operations budget. However, financing the maintenance of existing facilities and new development in the face of increasing visitor use remains a problem. This will be addressed during the 1990 legislative session when a capital bonding bill is considered.

The state park system has the Department of Natural Resource's (DNR) largest physical plant with over 2,800 major facilities requiring major rehabilitation. The Division of Parks & Recreation has identified more than \$55 million in capital budget needs. These projects include land acquisition, resource management, major rehabilitation or replacement of existing facilities and a few new facilities. Legislative funding requests to meet this need will be spread throughout future bienniums.

A recent study conducted by the Minnesota Historical Society identifies 515 historic structures located in the state park system. These structures are listed on the National Register of Historic Places. Most of these structures are of Civilian Conservation Corps (CCC) and Work Progress Administration (WPA) vintage. The CCC/WPA structures were constructed in the 1930's. These facilities are over 50 years old and many are in need of major rehabilitation which includes the electrical, sewage, and water systems associated with these buildings.

Many years of intensive use is also a consideration when looking at the current condition of campgrounds, picnic areas, group camps and trail systems. Lack of development and rehabilitation of these and other state park facilities will reduce park use. A reduction in state park use will adversely impact the economic development of adjacent communities and Minnesota's effort to improve tourism.

As capital development funds have become available we have completed the highest priority projects. As additional needs are identified, they are reviewed and placed on the statewide priority list for future completion.

In 1991, Itasca, Minnesota's oldest state park, will be 100 years old. For 100 years Minnesota has had a park system to be proud of. The present challenge is to manage the park resources and recreational development to ensure that Minnesotans will be proud of their state park system for another hundred years.

AN OVERVIEW OF TEMPERANCE RIVER STATE PARK

Temperance River State Park is located in Cook County along Lake Superior's North Shore 81 miles northeast of Duluth on U.S. Highway 61. The park's statutory boundary encompasses 207 acres. Hiking, snowmobile and cross-country ski trails extend out from this small park to provide access to Cross River Wayside and extensive areas of the Superior National Forest.

Rugged basalt outcrops and scenic river gorges and waterfalls dominate Temperance River State Park. Hundreds of millions of years ago volcanic activity forced masses of molten rock up through cracks and fissures in the earth's crust creating extensive lava flows. These flows formed layers of basalt which serve as bedrock underlying the park.

Between 2 million and 10,000 years ago four major glacial advances occurred in this region of Minnesota. Each time, the rocks in the park were polished, grooved and scoured by the southward advancing sheets of ice. Cliffs were sheared off rocks and mineral debris were plucked from the land leaving exposed rock outcrops.

One of the most notable geologic features of the park is the Temperance River Gorge with its many waterfalls. The rapidly falling river eroded deep potholes in the lava layers of the river bed. Potholes are formed by swirling water carrying sand and gravel which wears away the soft lava. Over thousands of years these potholes were dug deeper and wider, eventually connecting and creating the deep, narrow gorge present today. Some dry potholes can be seen adjacent to the river. These were formed under the river and then left dry when the river changed course or became smaller.

The vegetation seen in the park today is very similar to that of presettlement time. Although significant disturbances, such as logging and fires, have impacted the Temperance River area the park's rugged terrain has inhibited abrupt changes in vegetational patterns.

The forest overstory is dominated by white birch, although aspen, balsam fir, spruce and white pine are present. Many of these white birch are becoming senescent, and are hazards in the use areas.

A variety of plant communities, ranging from lowland bogs to wooded uplands and rock outcrops, provide habitat for many different types of wildlife. Many species of birds utilize the park either as residents or seasonal migrants. These include the peregrine falcon, bald eagle, merlin, boreal owl, saw-whet owl, boreal chickadee, belted kingfisher and hooded merganser. Mammal species that inhabit the park include the timber wolf, moose, raccoon, river otter, beaver, snowshoe hare and northern flying squirrel. Brook brown and rainbow trout have been stocked in the Temperance River over the years, and today brown and brook trout have established natural populations.

Temperance River State Park combines rugged beauty with a variety of recreational opportunities to provide maximum outdoor recreation enjoyment. Popular visitor activities include trout and steelhead fishing on the Temperance River and in Lake Superior, hiking the river gorge trails and camping and picnicking on the shore of Lake Superior.

In addition to the park, Temperance River staff manages several waysides, each with special characteristics and management needs. Overviews of the waysides are found below.

Cross River State Wayside

The lower falls along the Cross River is one of the most commonly photographed parts of the North Shore, and thousands of visitors stop momentarily at the wayside to record the stunning beauty of the falls. Very few visitors realize that falls, gorges and scenery of equal value can be found a short distance upstream. This untapped beauty is available, but some development is necessary to ensure sensitive interaction with the resources.

EXISTING FACILITIES

Ray Berglund State Wayside

Little development has occurred in this 58-acre parcel on State Highway #61. The Onion River, which flows through the wayside, provides a beautiful natural area where travelers can rest. Several small waterfalls add to the aesthetic qualities of the site. Cliff ferns hang from the walls of the gorge in several places. Vegetation consists almost exclusively of white birch, established after fires burned the area in 1920.

The river cuts through several geologic strata, and a walk up the trail is very interesting. A good trail is located east of the river, connecting to the North Shore Trail at the northern end of the wayside.

Caribou Falls State Wayside

An 88-acre parcel on State Highway #61, very little development has occurred in Caribou Falls State Wayside. Caribou Falls is one of the most spectacular falls in the state and can be reached by walking about one-quarter of a mile from the wayside parking lot. The Superior Hiking Trail Association recently upgraded the trail, placing stairs and erosion control structures on some of the steeper slopes. The wayside will function as a trailhead for the Superior Hiking Trail. The hiking trail crossing of the Caribou River upstream is outside of the wayside boundary. The upgrading was necessary because of damage that resulted from the flood of 1978.

The Caribou River area burned in the fall of 1926 after being logged from 1900 to 1920. Much of the vegetation today is second-growth birch and aspen.

The following is an inventory of the existing physical plant of Temperance River State Park.

Acres in Statutory Boundary - 207

Acres of state land - 183.1

Acres of federal forest land - 23.9

Campsites

Drive in - 50

Showers

Modern toilets

Miles of Trails

Hiking - 8

Cross Country Ski - 12

Snowmobile - 5

Miles of Road

Gravel - 2

Number of Picnic Tables - 10

Number of Buildings

Over 100 sq.ft. - 5

Under 100 sq.ft. - 16

Miles of Posted Boundary - 2

Park Utilities

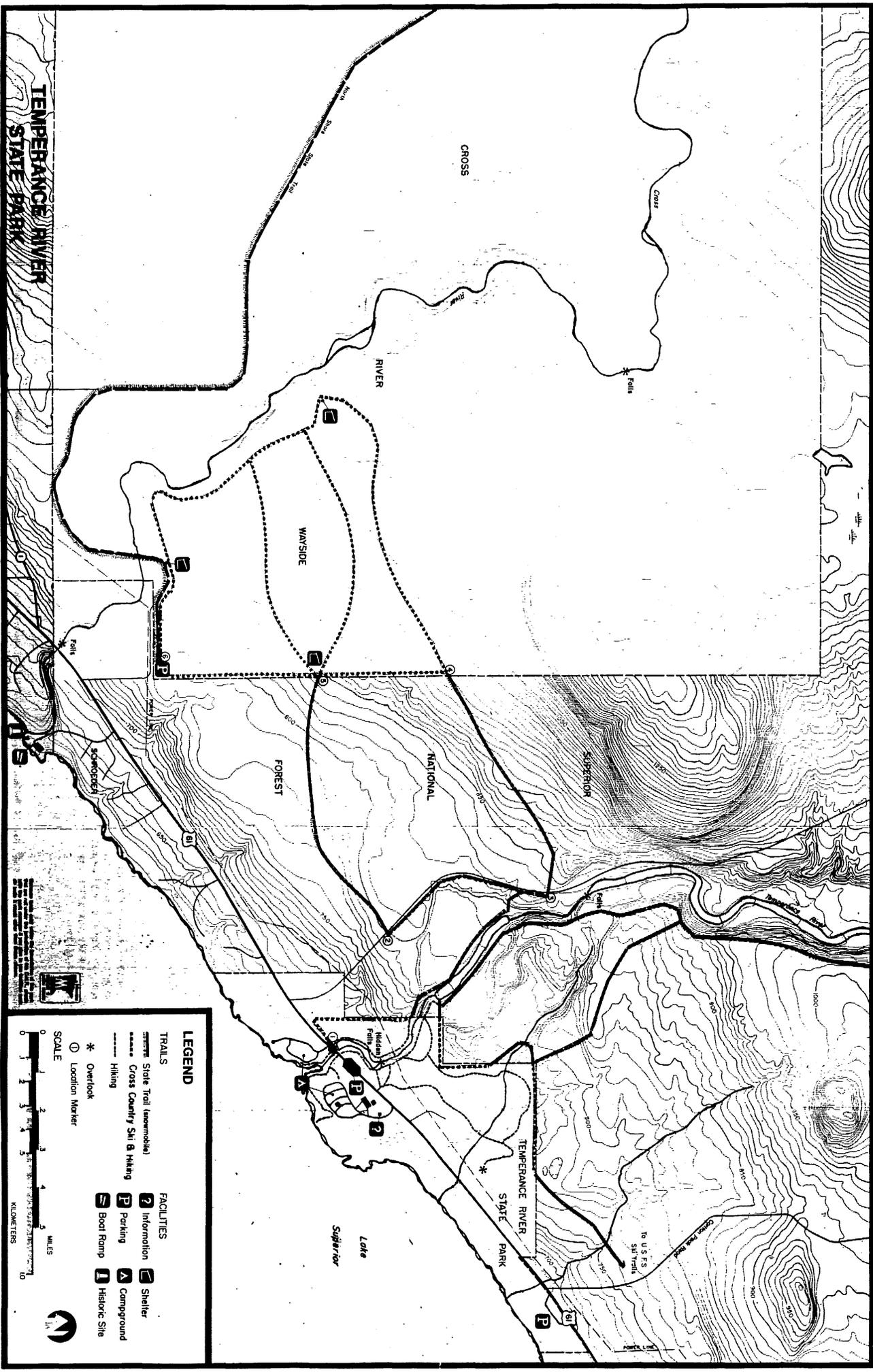
Number of Septic Tanks - 3

Number of Wells - 3

Number of Individual

Water Distribution Systems - 4

Miles of State Owned Power Line - .5



LEGEND

TRAILS		FACILITIES	
-----	State Trail (asombakhi)	②	Information
.....	Cross Country Ski & Hiking	P	Parking
-----	Hiking	S	Boat Ramp
*	Overlook	shaded rect	Shelter
○	Location Marker	shaded sq	Campground
		shaded circ	Historic Site

SCALE

0 1 2 3 4 5 6 7 8 9 10
MILES

0 1 2 3 4 5 6 7 8 9 10
KILOMETERS



PROBLEMS FACING TEMPERANCE RIVER STATE PARK

There are many public recreational facilities in Temperance River State Park to maintain. Many are in need of replacement or major rehabilitation. Most were constructed in the 1930's and are now in need of rehabilitation. Many new facilities are needed to meet growing recreational demands.

The park's natural and cultural resources are also in need of protection and management to perpetuate Temperance River's resources. In the past, facilities may have been developed in areas of cultural significance. These areas must be protected and should be interpreted.

Perhaps the most pressing need at Temperance River State Park is a major rehabilitation of the campground and existing service area between Highway 61 and Lake Superior. By relocating the service area on the other side of the road we would have more room for campground expansion and rehabilitation. Many of the trails also need major work to reduce erosion and improve safety.

Many of the park and nearby wayside lands were burned in the 1920's, resulting in vegetation dominated by pioneer species, such as white birch and aspen. These trees are aging and dying. Hazardous tree removal and regeneration of trees need to be completed, to maintain aesthetic qualities and reduce park liabilities. This is especially important in the heavy use areas, such as the campground. Maintenance of the waysides is necessary to continue providing opportunities to travelers and visitors.

Important improvements have been completed at Temperance State Park in recent years. However, the goals identified in the ten-year old-management plan have not been achieved.

RECENT DEVELOPMENT IN TEMPERANCE RIVER STATE PARK

Major development projects over the past few years have included:

1. New service area well.
2. Lake Superior shoreline erosion control.

TEMPERANCE RIVER STATE PARK CAPITAL NEEDS

RESOURCE MANAGEMENT

Erosion Control - \$20,000

Erosion control along Lake Superior and the trail system along the Temperance River. Problem areas should be closed off by temporary fencing, and water diversion structures should be set in place. Extensive revegetation with species suited to discourage traffic will keep visitors away from the damaged sections while rehabilitation is occurring.

Campground revegetation - \$5,000

Suitable tree species will be planted in use areas which have incurred heavy mortality.

Resource Assessment - \$4,000

Establish baseline information of rare, threatened, and endangered species of plants and animals in the park, and locate and identify sensitive habitats.

Subtotal \$29,000

MAJOR REHABILITATION

Campground Rehabilitation - \$75,000

Relocation of some spurs, expansion of campsites, replacement of pit toilets, landscaping and adding new fire rings and picnic tables.

Trail Rehabilitation - \$30,000

Repair erosion and provide steps and handrails where needed.

Subtotal \$105,000

NEW DEVELOPMENT

Contact/Orientation Station - \$145,000

Construct new contact/orientation station to provide visitor orientation and office space for staff.

Lower Campground Toilet Building - \$140,000

Replace existing pit toilets with modern toilet/shower building.

Shop and Utilities - \$75,000

Construct new shop and warehouse to provide service and storage for park equipment.

Campground Expansion - \$45,000

Project to include the addition of 20 much needed campsites to accommodate the high public demand.

Upper Temperance River Foot Bridge - \$25,000

This bridge would tie the existing trail system together by creating a loop system on the inland side of Highway 61.

Well abandonment - \$12,000

Abandon existing old wells as prescribed by the Health Department regulations.

Subtotal \$442,000

**TEMPERANCE RIVER STATE PARK TOTAL
DEVELOPMENT NEEDS \$576,000**

TEMPERANCE RIVER AREA STATE WAYSIDE CAPITAL NEEDS

Cross River State Wayside

Parking Lot/Trailhead - \$5,000

A trailhead should be developed on wayside land near the United Power substation that incorporates the North Shore Trail, the Superior Hiking Trail, and the Temperance River State Park trails into one system.

Loop Trail Development - \$10,000

A hiking loop that starts from the trailhead, runs along the east edge of the river to the Superior Hiking Trail Bridge, back along the west side of the river to the trailhead. Easements on private property near the wayside will be necessary.

Resource Assessment - \$4,000

Establish baseline information for vegetation and land-use history to aid in resource management decisions. Currently, no information has been compiled for this area.

Cross River State Wayside Development Needs \$19,000

Ray Berglund State Wayside

Development of a Picnic Area - \$10,000

Development of a primitive picnic area on a flat shelf rock outcrop, twenty feet above the parking lot. If completed, the picnic area would receive extensive use.

Trail Improvements - \$7,000

Upgrading the trail on the east side of the river by reestablishing vegetation, installation of railings on the overlooks and development of a loop route on the west side of the river.

Stairway Construction - \$3,000

Construct a stairway from the parking lot to the proposed picnic area. Construct a stairway on the west side of the river to continue the trail loop over a twenty foot rock outcrop.

Ray Berglund State Wayside Development Needs \$20,000

Caribou Falls State Wayside

Trail Loop Development - \$5,000

Develop a trail on the west side of the river to the Superior Hiking Trail bridge, back down the existing trail on the east side of the river to the wayside.

Resource Assessment - \$2,000

Establish baseline information for vegetation and land-use history to aid in resource management decisions. Currently, no information has been compiled for this area.

Caribou Falls State Wayside Development Needs \$7,000

TEMPERANCE RIVER AREA WAYSIDES TOTAL DEVELOPMENT NEEDS \$46,000

LAND ACQUISITION

There are approximately 20,000 acres of private land within the boundaries of Minnesota State Parks.

Acquisition of these lands is an ongoing process that occurs as parcels become available for purchase and funds are available. Present acquisition costs are averaging about a \$1,000 per acre across the state. It would cost about \$20,000,000 to acquire all the private land within state parks at present values.

The park map shows the location of private holdings within the park. These properties should be purchased before private development increases within the park's statutory boundary.

The following issues highlight problems associated with private property within state parks.

- * Private lands within state parks are being sought out by developers.
- * Subdivision for residential use will cause such lands to be too expensive to acquire in the future.
- * Land uses such as gravel extraction and extensive clear-cut logging adversely impact state parks and adjoining public lands.
- * Some private lands limit public use of existing park facilities and lands because of their location.

These issues associated with privately owned lands within state parks threaten existing public investment and limit public use.

There are 23.9 acres of U.S.D.A. Forest Service managed land within the Temperance River State Park statutory boundary. Negotiations are presently underway to acquire this land for park use.

PARK POTENTIAL

What efforts will the completion of resource management, rehabilitation and new development projects have on Temperance River State Park? These projects along with the acquisition of private lands within the park will assure the preservation of these unique resources and facilities for future generations. Active management will be required to maintain and regenerate existing forest stands and preserve landscape integrity. These will ensure that future visitors will be able to experience the diverse nature of Minnesota's forests.

Some improvements will not only increase park use but will greatly increase the quality of the visitor's experience. Many of the rehabilitation projects will increase staff efficiency and cut the costs of maintaining facilities.

New facilities will improve service while giving the visitor a greater opportunity to learn about Minnesota's natural and cultural resources.

The acquisition of private lands within the park will assure that private and commercial development do not detract from the natural beauty of Temperance State Park.

A stable funding source is essential for effective long-term resource management and capital budget planning for the Minnesota State Park System and Temperance River State Park.

SUMMARY

Currently, statewide capital needs for development and acquisition are **\$55,000,000**. The mission of the Minnesota State Park System can be achieved by funding support to meet this need over the next several bienniums.

Temperance River State Park acquisition of federal land will be determined by appraisals.

Temperance River State Park
development needs **\$576,000**.

Temperance River Area Waysides
development needs **\$46,000**

**Help us celebrate the 100th anniversary of the
Minnesota State Park System in 1991!**

