

Temperance River State Park & Cross River State Wayside Management Plan





Minnesota Department of Natural Resources

OFFICE OF THE COMMISSIONER

500 Lafayette Road

St. Paul, Minnesota 55155-4037

**RE: Department of Natural Resources Approval of Management
Plan For Temperance River State Park and Cross River State
Wayside.**

Minnesota Statutes 86A.09 requires that a master plan be prepared for units of Minnesota's outdoor recreation system. Laws of Minnesota for 1957 established Temperance River State Park.

The recommendations in this plan are the result of a partnership based planning process. It was developed with the assistance of many citizens and technical experts from several agencies. The management plan was reviewed and approved by C-Tech, DNR's interdisciplinary review group in June 2000.

A handwritten signature in cursive script, appearing to read 'Allen Garber', written over a horizontal line.

Allen Garber, Commissioner
Minnesota Department of Natural Resources

A handwritten signature in cursive script, appearing to read '8/16/00', written over a horizontal line.

Date



Temperance River State Park & Cross River State Wayside Management Plan

Approved August, 2000



Division Of Parks & Recreation

This management plan has been prepared as required by 1999 Minnesota Laws Chapter 86A.09 Subdivision 1.

For more information on this management plan please contact any of the following project participants from the Division of Parks and Recreation:

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The development of this plan was greatly assisted by the members of the Temperance River Citizen Advisory Committee, who donated many hours of their time to help analyze and discuss the current park issues, and make management recommendations.

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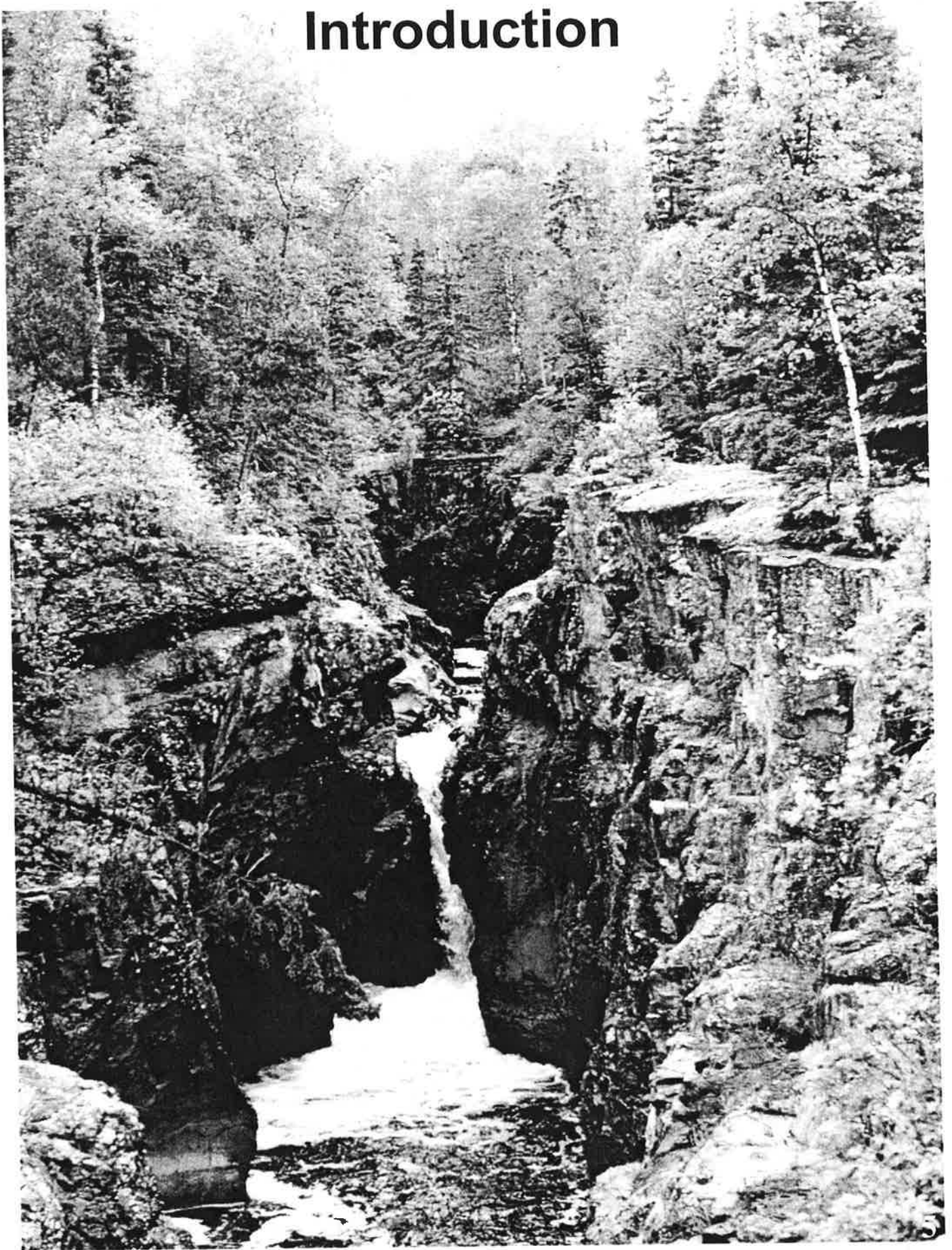
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Introduction



Park Description

Temperance River State Park and Cross River State Wayside are located on State Highway 61 in southern Cook County, 81 miles northeast of Duluth. Both are located between Schroeder and Tofte, along the north shore of Lake Superior.

Temperance River State Park and Cross River Wayside statutory boundary includes approximately 3,059 acres. Of the land within the statutory boundary; 1,139 acres is state owned and managed by the Division of Parks and Recreation; 1,880 acres are federally owned and managed by the USFS; and approximately 40 acres are privately owned. The state owned land is in three separate pieces, 219 acres at the mouth of the Temperance River with one mile of Lake Superior shoreline, 600 acres that includes a section of the Cross River (in the Cross River Wayside), and 320 acres that includes Carlton Peak.

The park receives warming breezes off Lake Superior in the winter, and cooling breezes in the summer. Attractions include camping adjacent to Lake Superior, spectacular geologic formations along the narrow Temperance River gorge, dramatic Lake Superior shoreline, spectacular views from Carlton Peak and the solitude of the Cross River Valley.

Management Description

The Minnesota Department of Natural Resources has a goal of managing Minnesota resources in a way that is sustainable for future generations. Ecosystem-based management (EBM) is the approach DNR is using to achieve this goal. The EBM approach takes a broader perspective and addresses entire ecosystems, rather than focusing only on individual plant or animal species or small parts of the ecosystem. This approach shifts emphasis to the variety of benefits the park provides to the environment, communities, economies, and people. To accomplish this will require balancing three fundamental outcomes:

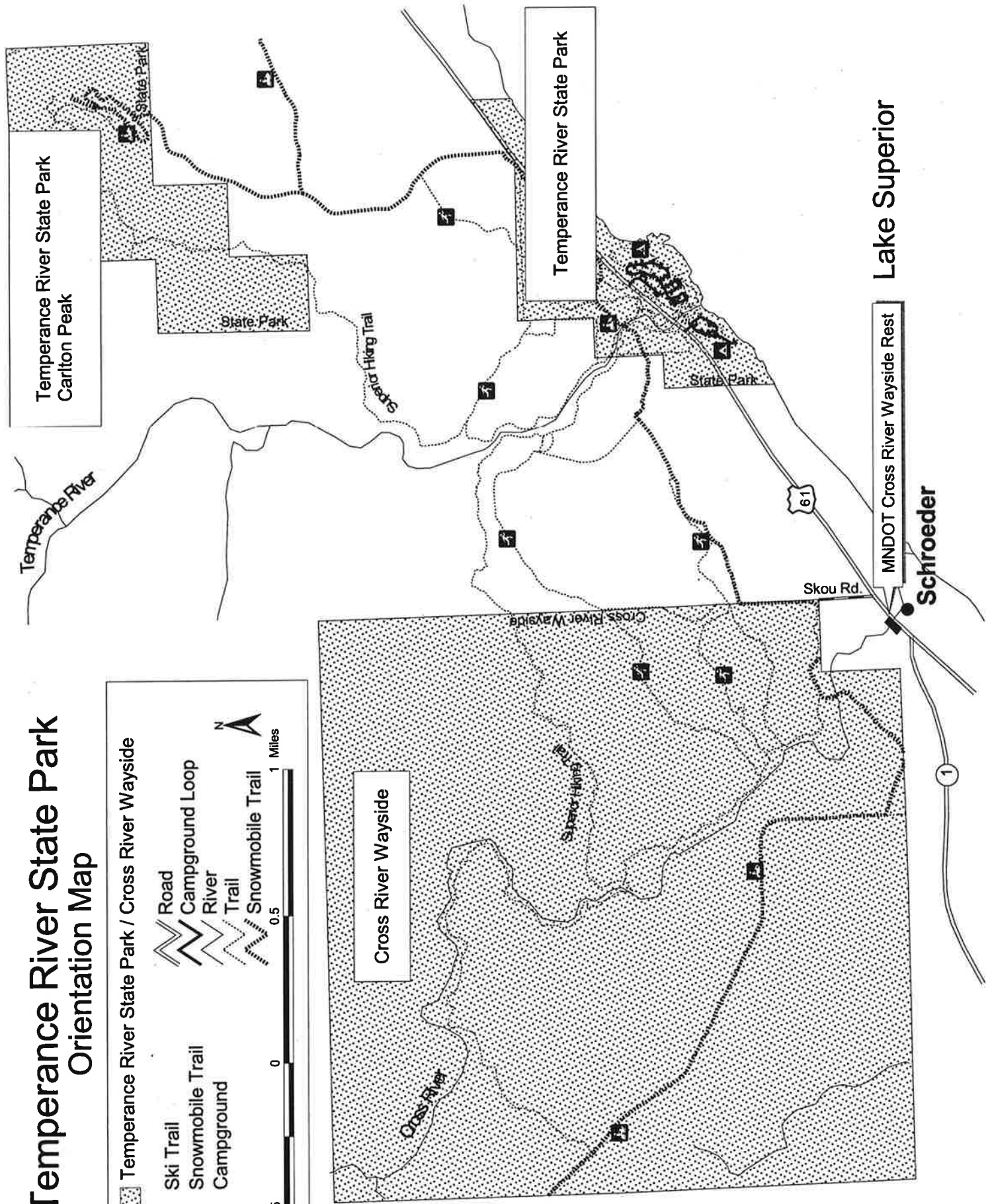
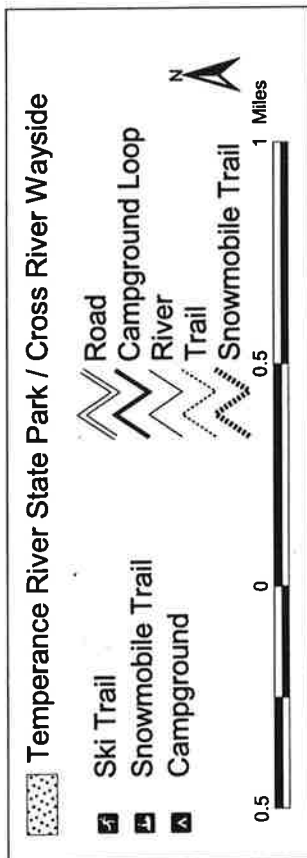
- an environment that supports human, animal and plant life
- an economy that is strong and sustainable
- and a community that provides a high quality of life

Temperance River State Park addresses these three outcomes somewhat now. The goal of this planning process is to decide how to manage Temperance River to sustain healthy ecosystems into the future. Ecosystems include all the living organisms (plants, animals, microorganisms, people) their physical surroundings (soil, water, air) and the processes that maintain them. Ecosystems may be small (a rotting log or an isolated pond) medium-sized (a forest stand or watershed) or large (Northeastern Minnesota). When people think about ecosystems, the first thing they consider are the natural aspects of the environment (e.g., soil, wildlife, and vegetation); however, EBM also includes humans in its framework. It is based on the assumption that humans have a unique effect on the ecosystem and are affected by the health of the ecosystem. Healthy ecosystems will provide the services people expect of the park: to get away and relieve stress; to learn new things; to enjoy family activities; to view beautiful scenery; to relax while fishing; to provide opportunities to see wildlife; to hike in a variety of natural settings; and to learn more about natural systems. A healthy ecosystem in the park also affects neighboring

communities, the North Shore Region, Minnesota, and the country. An EBM approach to the management and planning of Temperance River State Park provides a framework in which all these effects can be considered.

This EBM perspective provides the opportunity to look at Temperance River State Park as an integral and beneficial part of a larger ecosystem. In addition, the approach calls upon us to articulate how the park specifically benefits the ecosystem. For instance: changes in visitor services provided at the park may affect the economic impact visitors have on Schroeder and Tofte, changes in vegetation management within the park can affect the bear or deer population that use the park as part of their habitat. Sustaining a healthy ecosystem within Temperance River State Park helps maintain the ecological and social health of a much broader area.

Temperance River State Park Orientation Map



Attempting to gain an understanding of all of the potential affects Temperance River has in the short and long term and in local areas and regionally is an overwhelming task. Benefits Based Management (BBM) is one way to address what human expectations can be accommodated within Temperance River State Park on a sustainable basis. This approach identifies those benefits that park resources at Temperance River can accommodate and which are a high priority for customers. It also provides a framework to allow managers to understand how characteristics of the setting and activities in the setting help people attain desired benefits. Park management staff are working to better understand what benefits customers receive, how to maximize these benefits while preserving the park resources, and understanding what impact these benefits have on customers and their communities.

Within BBM, a benefit is a "desirable change of state:" an improved condition or state of an individual, a group of individuals, a society, or even non-human organisms. The natural environment plays a vital role in what and how benefits are produced. Different activities are conducted in different types of settings, which result in certain kinds of benefits. Many benefits enjoyed in Temperance River can lead to life-long benefits. For example, the existing Temperance River State Park is too small for long remote trails, but a trail through the backcountry of Cross River Wayside may help a person feel that he or she is escaping civilization and reducing the stress created by working. In the longer term, that person may feel mentally relaxed when returning back to work and become a more efficient employee. Another example may include a more developed area where there are interpretive signs and exhibits. This interpretive development helps people learn more about nature. A better-informed society may result from the fact that many people learned about nature in Temperance River, and these people may then treat nature with better care. This change in behavior can benefit the environment and future generations who live in that environment.

The list of potential benefits to society is massive and too large to be fully addressed here, but this plan does use information regarding the benefits people most desire and believe are the most important. Since the setting plays a vital role in the production of all benefits associated with Temperance River State Park, alterations to it may have a large effect on what benefits society may realize. Therefore, any changes in the setting must be evaluated in terms of its effect on the benefits to users of Temperance River State Park.

Minnesota State Parks have been partners in two pilot projects with the University of Minnesota, Department of Forest Resources; USDA Forest Service, Rocky Mountain Forest and Range Experiment Station; and the US Department of Interior, Bureau of Land Management, Colorado State Office. The State Park Visitor Benefits Study surveyed park visitors in six Minnesota State Parks, including nearby Tettegouche State Park, to identify what benefits they desired and received by visiting state parks. The Community Benefits of Minnesota State Parks Study surveyed community leaders and tourism industry businesses, including those in Silver Bay, to identify how rural communities benefit from state parks. The results of these studies will be used to ensure that the limited funds available for recreation and leisure services are used to produce the greatest benefit.

Unit Planning Process

This management plan was developed through an open public process. Two committees provided input into the process, the Temperance River Citizen Advisory Committee (CAC), and the Grand Marais Integrated Resources Management (IRM) team. The Temperance River Citizen Advisory Committee is comprised of people that are primarily from the North Shore area, but also from Duluth & the Twin City Metro Area. These individuals represent a variety of perspectives that is intended to represent the diversity that is found in the public at large. The committee members unselfishly spent many hours over the course of two years to analyze and give their recommendations on a variety of environmental and recreational issues. The IRM team is comprised of DNR technical experts. Both of these committees helped identify a vision for Temperance River State Park and the major issues that needed to be addressed during the planning process. They then discussed the pros and cons of various ways of addressing each issue. The result of this discussion is this draft plan that was sent out for public review.

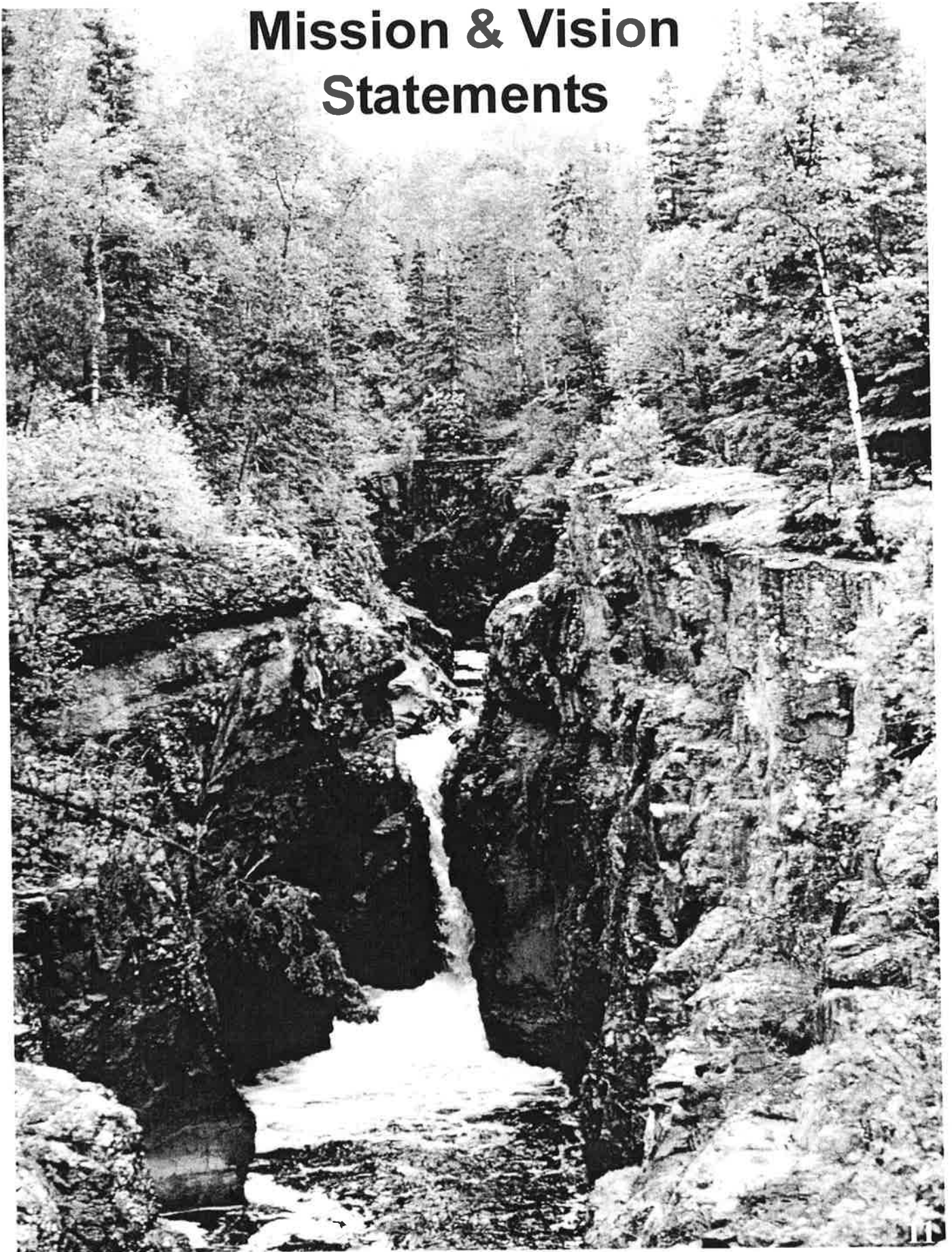
A public open house was held in Schroeder to review the draft plan and solicit public opinion on the proposals. Copies of the draft plan were available for review for 30 days after the open house. The revised draft plan received final review by DNR staff in June 2000 and was signed by the Commissioner of Natural Resources on August 26, 2000.

Copies of this plan are available at Temperance River State Park and the central office of the DNR, Division of Parks and Recreation, 500 Lafayette Road, St. Paul, MN 55155-4039 or can be downloaded from the DNR internet site at www.dnr.state.mn.us from the Temperance River State Park page.

A completed park plan and "planning process file" documenting the 1995-98 planning process and pertinent background information was distributed to the following locations: Temperance River State Park Office, State Park Regional Park Manager's Office in the Grand Rapids Regional DNR Office, and the State Park Planning Section in St. Paul.

The recommendations in this plan are the result of this partnership-based planning process. This plan provides a basic management direction for the recreation area and is not intended to provide specific management or development details.

Mission & Vision Statements



DNR Vision Statement

“We will work with the people to manage the state’s diverse natural resources for a sustainable quality of life.”

Division of Parks & Recreation Mission

“We will work with people to provide a state park system which preserves and manages Minnesota’s natural, scenic and cultural resources for present and future generations while providing appropriate recreational and educational opportunities.”

Division of Parks & Recreation Vision

“We will continue to work with the people of Minnesota to ensure that the Minnesota State Park System will be sensitive to the needs of current and future generations and guided by the following principles and values:

- A commitment to ensure deliberate and effective natural, cultural, historical and archaeological resource management;
- A commitment to provide appropriate recreational opportunities;
- A commitment to maintain a proper balance between resource protection and recreational use of state park lands;
- A conscious recognition of our responsibility to the public for wise and prudent acquisition and development of state park lands;
- A recognition of our educational and interpretive roles;
- A conscious and continuous effort to respect the valuable human resources embodied in our employees and the public;
- A continued desire to actively seek and adopt innovative, effective and efficient management practices;
- A realization of our responsibility to secure and maintain the resources necessary to implement our mandates and mission;
- A pledge to provide high quality public service; and
- A promise to consistently seek public involvement and support in decision making.

Temperance River State Park Mission / Vision

Mission

"We will work with the people to manage Temperance River State Park so that its significant natural and cultural and scenic resources are protected and enhanced for future generations while providing diverse recreational and educational opportunities without impairing park resources."

Vision

Temperance River State Park management will be sensitive to the needs of the current and future generations and guided by the following principles and values:

1. Continue to develop partnerships and cooperative strategies for enhancing scientific research, resource management, education, and sustainable tourism within the Lake Superior basin.
2. Protect and enhance the natural, cultural and scenic resources such as: the rocky Lake Superior Shoreline; the spectacular Temperance River Gorge; and Carlton Peak; that contribute to the park's state-wide significance.
3. Provide recreational opportunities to make park resources accessible to all visitors including those with disabilities in a way that will not impair significant resources.
4. Maintain proper balance between resource protection and recreational use of the park.
5. Recognize Temperance River State Park's role in the management of the North Shore Highlands Ecosystem and its potential to preserve a large block of older forest.
6. Recognize our responsibility to the public for wise and prudent acquisition of park lands.
7. Recognize our educational and interpretive roles in promoting a sense of stewardship among park visitors.
8. Respect and value our employees and the public.
9. Actively seek and adopt innovative, effective and efficient management practices.
10. Strive to secure and maintain the funding and staff level necessary to implement our mandates and mission.
11. Provide high quality public service.
12. Consistently seek public involvement and support in decision making.

Strategies

1. Manage sections (zones) of the park at varying levels of intensity to protect and enhance the resource base and visitor experiences.
2. Direct park acquisition efforts to areas that provide opportunities to protect and enhance outstanding resource and recreational values.
3. Concentrate resource management efforts on protecting and enhancing communities that contribute to the parks state-wide significance (i.e.; Lake Superior shoreline communities and older forest communities).

4. Manage scenic resources to provide visitor access while preserving the scenic value of the resource.
5. Contribute to watershed and ecosystem wide resource management efforts.
6. Recognize the role Temperance River State Park plays in providing recreational opportunities that are both unique and complementary to opportunities provided elsewhere in the region.
7. Provide a variety of interpretive opportunities to promote increased understanding, appreciation and enjoyment of Temperance River's natural and cultural resources.
8. Promote public understanding of and support for, the Minnesota Department of Natural Resources and its Division of Parks and Recreation, through the interpretive program.

Regional Analysis



North Shore Highlands Ecological Subsection

The North Shore Highlands Ecological Subsection occupies the area adjacent to Lake Superior. It is gently rolling to steep. Bedrock outcroppings are common and soils are commonly shallow. Soils are formed in red and brown glacial till and are rocky. Lake Superior dominates this region. It moderates the climate throughout the year, acting as an air conditioner in summer and warms the subsection in winter. Presettlement vegetation was forest, consisting of white pine, red pine, jack pine, balsam fir, white spruce, and aspen-birch. Present land uses include recreation, tourism and forestry.¹

The ground moraine and end moraine of the Superior Glacial Lobe cover much of the subsection.² A clay lake plain forms a broad band along the Lake Superior shoreline in the southern half of the subsection. The clay plain is flat to rolling with steep, narrow ravines along many streams. There are also outwash deposits along the western edge of the subsection.

Analysis by Marschner (1974) indicated that prior to settlement the subsection contained aspen-birch forest, white pine-red pine forest, mixed hardwood-pine forest, conifer bogs and swamp. White pine-red pine forest was most common on the clay lake plain and on thin soil over bedrock in the southern half of the subsection. Mixed hardwood-pine forest, with sugar maple, was concentrated on the ridges of the dissected clay lake plain and the Highland Flats. In the northern half of the subsection, aspen-birch was dominant, with very little white pine-red pine forest or mixed hardwood-pine forest. Mixed hardwood-pine forest persisted in areas within 6-10 miles of the shoreline on ridge tops.

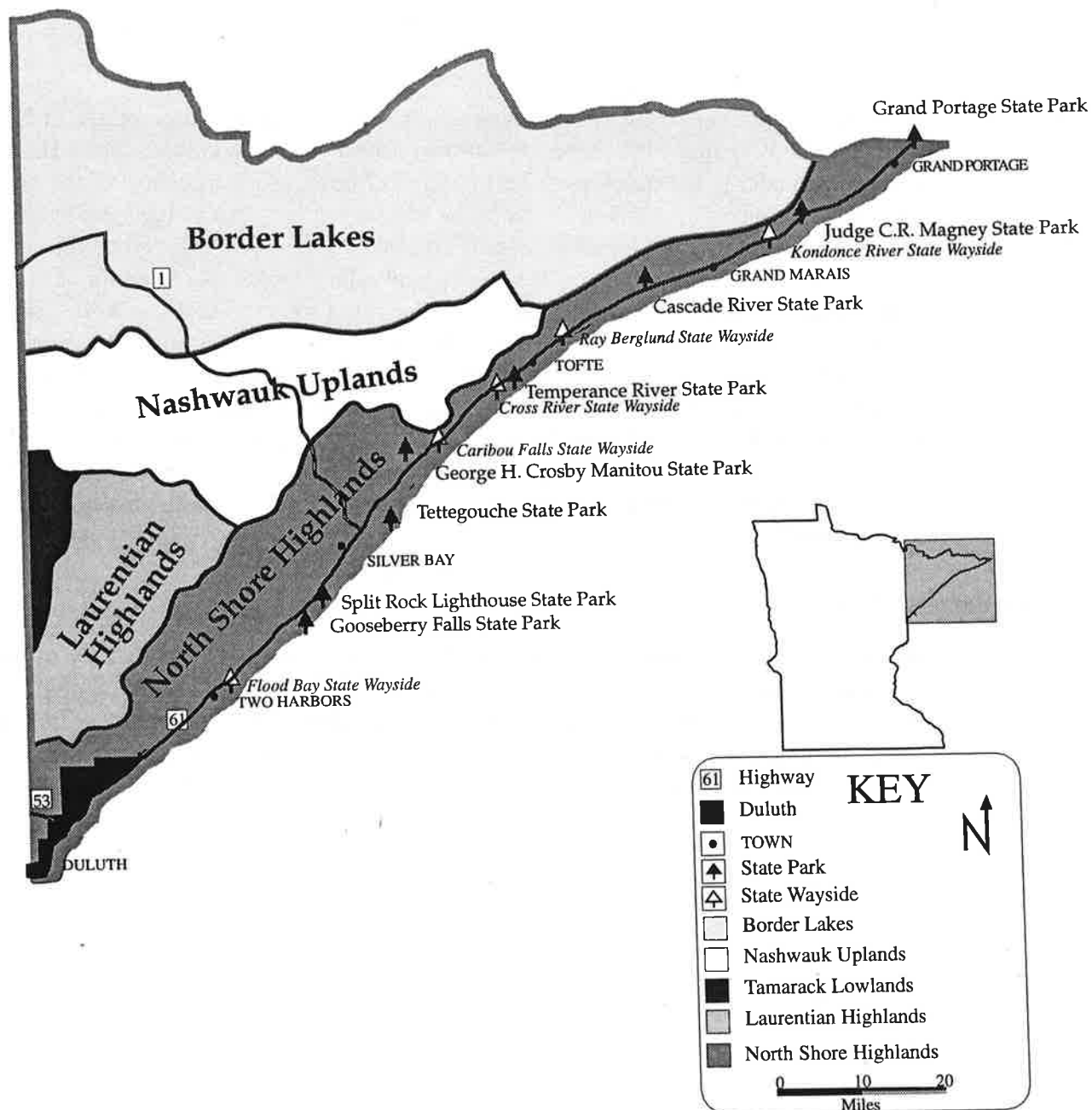
Almost the entire subsection remains forested, with forest management and recreation as the major land uses. Logging, followed by catastrophic fires replaced the extensive white pine-red pine forests with forests of trembling aspen-birch. Despite these changes, the wildlife population is relatively intact since few other regions of the United States can support large predators such as wolves, bobcats, marten and fishers. There have been major changes in the predominance of wildlife species however, for instance there were more moose and very few deer in this subsection before logging.

The Lake Superior Highlands is identified, by the MN DNR Natural Heritage and Nongame Research Program, as critical landscape for biodiversity protection because of the significant old-growth northern hardwoods and upland northern white cedar forest. Tourism and mining are the other important land uses. There are no mines within the subsection, but ports were set up to get the iron ore from the Minnesota Iron Range to steel mills in Indiana and Ohio. The city of Duluth has a large port area and ships significant amounts of agricultural commodities, as well as iron ore.

Regional Population Analysis

Temperance River State Park is located in Cook County, Minnesota, 81 miles northeast from the city of Duluth, which in 1997 had a population of 85,225. It is 108 miles southwest from Thunder Bay, Canada, which had a population of 113,946 in 1990. Cook County had a total estimated population of 4,437 residents in 1997. Nearby Lake County had a total population of 10,695 residents in 1997. Cook County's population is focused near the shore of Lake Superior. Nearly 30% (1,239) of the residents live in the City of Grand Marais.

North Shore Highlands ECS Subsection



Regional Recreation Resources

The North Shore Highlands is a long slender region that is primarily accessed from State Highway 61. Highway 61 parallels the coast and access into the interior is primarily by secondary hard surfaced and gravel roads. The only state highway that provides access to the north or northwest is State Highway 1 just north of Silver Bay. Traffic volumes along Highway 61 decrease steadily from Duluth northeast to the Canadian border. At Duluth, the average daily traffic volume was 5,755 commercial and private vehicles in 1995. At Beaver Bay, (53 miles northeast of Duluth and 31 miles south of Temperance River State Park), the volume decreased to 4,565 vehicles; at Grand Marais there were 2,930 vehicles; and at Grand Portage there were 1,470 vehicles.

The Superior National Forest provides a diversity of recreational opportunities for North Shore Highlands visitors. The Superior National Forest boundary extends along Highway 61 from Schroeder to ten miles north-east of Grand Marais. Although most of the land adjacent to Highway 61 is private, most of the forested inland area is managed by the USFS. The forested setting for all visitors is created by the visible wooded ridges, and the knowledge of the 1.2 million acres of forested land inland from Lake Superior. The USFS is committed to multiple use management of balancing forest resources, wildlife, and recreational use of the forest. The Superior National Forest provides about 2.4 million recreation visitor days on its lands outside the BWCA Wilderness. That part of the Superior National Forest within the North Shore Highlands provides camping, a diversity of trail opportunities, and a forested setting for other public and private recreational facilities. For instance, all of the present long distance trails provided by Temperance River State Park extend from state property across adjacent USFS land, greatly expanding the recreational opportunities provided.

Overnight Use

Camping - There are 30 campgrounds in the North Shore Highlands. Only 23% of these are state park campgrounds. Although state parks are often the best known campgrounds along the North Shore, the following chart shows that they provide only 20% of the drive-in camping opportunities and only 3% of the campsites that provide electricity. State parks provide 31 backpacking sites which is 35% of the more primitive campsites.

1995 North Shore Campground Opportunities by Management

	# Camp Grounds	% Camp- grounds	# Drive-in Sites	% Drive-in Sites	# Electric Sites	% Electric Sites	# Cart-in Sites	% Cart-in Sites	# Backpack Sites	% Backpack Sites
Private	14	47%	465	41%	284	44%	0	0%	5	6%
Municipal	2	7%	319	28%	342	53%	0	0%	0	0%
State Parks	7	23%	221	20%	18	3%	34	100%	31	35%
State Forestry	2	7%	86	8%	0	0%	0	0%	0	0%
State Trails & Waterways	0	0%	0	0%	0	0%	0	0%	14	16%
Superior Hiking Trail	0	0%	0	0%	0	0%	0	0%	39	44%
USFS	5	17%	40	4%	0	0%	0	0%	0	0%
Total	30		1,131		644		34		89	

Trails

Hiking - There are 488.8 miles of hiking trails along the North Shore. Over 45% of this total are provided by the Lake Superior Hiking Trail. The Superior Hiking Trail is being developed by a private foundation, the Superior Hiking Trail Association. As of February, 1999, this rugged hiking and backpacking trail was 220 miles long, and when completed it will extend nearly 300 miles from Duluth to the Canadian border. The Superior Hiking Trail passes through Temperance River State Park providing 4.3 miles of hiking trail within Cross River Wayside, Temperance River State Park and the Carlton Peak Addition.

Horseback - On the North Shore Trail there are 53 miles of designated horseback riding trails. There are 3 miles of private trail available for horseback riding at the Lutsen Village Inn within the North Shore Highlands. The Superior National Forest provides horseback riding opportunities on logging roads; however, there are no designated horseback riding trails.

Cross-Country Skiing - There are 409 miles of cross-country ski trails along the North Shore, the majority (63%) are administered by grants-in-aid. Fifteen miles of narrow rustic ski trails are provided in Temperance River State Park. The slower paced with more intimate interaction with nature character of these trails contrasts with wider more manicured trails provided near Lutsen. Although skiing is allowed on the North Shore Trail, it is not groomed for this activity and mileage is not included in the total miles of cross-country ski trails. Cross-Country skiing is not recommended on the Superior Hiking Trail because of its rugged alignment.

Snowmobiling - There are 665 miles of snowmobile trails along the North Shore, 170 miles of which are a part of the North Shore Trail. The North Shore Trail is a 170 mile long multiple-use trail. It is groomed for snowmobile use in the winter and is available for hiking in the summer, although much of it is wet. This trail currently extends from

Duluth to Grand Marais. The Schroeder Tote Road that passes through Cross River Wayside is a grants-in-aid Snowmobile Trail that connects the North Shore Trail to Schroeder. There are 407 miles of State Grant-In-Aid (GIA) snowmobile trail opportunities in this region. GIA trails are funded by snowmobile registrations and unrefunded gas taxes through the Minnesota DNR. Local units of government sponsor these trails and distribute the funds to local snowmobile clubs for trail development and maintenance. The Superior Timber Wolves Sportsmen Club maintains snowmobile trails connecting park trails to other trails in the area. Seven miles of slow paced narrow, winding snowmobile trail loops are maintained by park staff within Temperance River State Park. These trails provide a contrast to the wider touring and transportation trails in the area. The GIA trails form a trail network that connects public lands and communities with the North Shore Trail

Bicycling (Surfaced trail or shoulder) - The Western Waterfront Trail (2.5 miles), and the Willard Munger Trail (14.5 miles), both located in the Duluth area, are the only two paved bike trails within the North Shore Highlands Region. The shoulder along the Scenic Highway 61 between Duluth and Two Harbors receives heavy use by bicyclists. There are no other significant surfaced bike trails along the North Shore north of Duluth. A local effort to develop an off-shoulder bicycle trail from Two Harbors to Grand Marais is building strong support. Federal Highway funding is being sought for construction, and State Trail designation may be pursued through the state legislature. State parks will support this effort by identifying alignments for the trail to pass through each park, and access major park facilities.

Off-road Bicycling (Mountain Biking) - There are 365 miles of off-road bicycling opportunities, as the following table shows, within the North Shore Highlands. The two largest providers of off-road bicycling opportunities are Superior National Forest (48%), which provides 176 miles of mountain bike routes which include both logging roads and designated mountain biking trails, and the North Shore State Trail (35%), that provides 130 miles of mountain biking from south of Two Harbors to Grand Marais. No off-road bicycling trails are provided in Temperance River State Park.

All-terrain vehicles (ATV's) - One trail that is designated specifically for ATV use is the Red Dot trail near Silver Bay. The Red Dot ATV Grant-In-Aid Trail is 26.5 miles long. A 6.5 mile section of one loop of this trail passes through Tettegouche State Park. State forests also provide for ATV use between April 1 and December 1, on all state forest roads and trails that are designated multiuse. The seasonal restriction applies due to potential conflicts and hazards of allowing both snowmobile and ATV use on the same trails. Grant-In-Aid snowmobile trails, the North Shore Trail and Superior Hiking Trail are all closed to ATV use.

Trail Recreation Opportunities Within The North Shore Highlands Ecological Region

Admin.	Trail Miles													
	Hiking	% of trail miles	Horse-back	% of trail miles	X-C Skiing	% of trail miles	Snow-mobile	% of trail miles	ATV	% of trail miles	Mt. Biking	% of trail miles	Surfaced Bike Trails	% of trail miles
Private	20	4.09%	3	5.70%	13.9	3.40%	0	0.00%	0	0.00%	27.9	7.60%	0	0.00%
Municipal	31.5	6.44%	0	0.00%	19.4	4.70%	10	1.50%	0	0.00%	0	0.00%	2.5	15%
Superior Hiking Tr. Association	220	45.01%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
North Shore State Trail	0	0.00%	50	94.30%	0	0.00%	170	25.50%	0	0.00%	130	35.50%	0	0.00%
State Parks/Forestry/T&WW	121.6	24.88%	0	0.00%	87.5	21.40%	78.5	11.80%	6.5	40%	32	8.70%	14.5	85.30%
Grand Portage Indian Reservation	28	5.73%	0	0.00%	28	6.90%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
National Park Service	9	1.84%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
US Forest Service	14	2.86%	0	0.00%	2.5	0.60%	0	0.00%	0	0.00%	176	48.10%	0	0.00%
Grant-In-Aid	44.7	9.14%	0	0.00%	257.4	63.00%	407.1	61.20%	10	60%	0	0.00%	0	0.00%
Total	488.8	100.00%	53	100%	375.4	100%	665.6	100%	16.5	100%	365.9	100%	17	100%

The following chart compares the amount of trails within Temperance River with the rest of the region.

Temperance River State Park	8	3.68%	0	0.00%	15	4.00%	7	1.05%	0	0.00%	0	0.00%	0	0.00%
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Data was collected from DNR Parks & Recreation, Forestry, Trails & Waterways, Information & Education, Management Information Systems; US Forest Service; National Park Service; and various tourism brochures. The list of USFS trail mileage includes only trails that are specifically designated for a particular use. Forty-four miles of Grant-In-Aid Hiking Trails are Cross-Country Ski trails which are hikable during other seasons.

Other Day-Use

Boat Access Ramps and Fishing Piers - Within the North Shore Highlands, there are 44 public boat access ramps, 21 inland boat accesses, 12 carry-in accesses, and 11 Lake Superior accesses. There is only one fishing pier on Lake Superior within the North Shore Highlands, which is publicly owned.

Hunting and trapping - Public hunting and trapping opportunities occur within St. Louis, Lake and Cook counties in the Cloquet Valley, Finland, Pat Bayle, and Grand Portage State Forests; and in the Superior National Forest. There are thousands of acres open to hunting, but the deer population congregates near Lake Superior during the winter, and are often moving closer to Lake Superior during hunting season. So the best hunting is where there is the least public land, near Lake Superior.

Sea Kayaking - Sea Kayaking is becoming more popular on Lake Superior. The Lake Superior Water Trail, which was authorized by the Minnesota Legislature in 1993, is a relatively new North Shore recreational opportunity that facilitates kayak touring along the shore of Lake Superior between Gooseberry Falls and one mile north of Tettegouche State Park. Within this 20 mile Pilot Project Area there are walk-in, backpack, or standard campsites at Gooseberry Falls, Split Rock Lighthouse, and Tettegouche State Parks. Campsites in these parks provide both "one-night maximum" and extended camping opportunities. Private lodges and resorts are also accessible from Lake Superior along the Lake Superior Water Trail. If this pilot project is successful, it may be extended up to Temperance River, and eventually the water trail may be designated around the entire Lake. The Lower Campground at Temperance River provides easy access on and off Lake Superior for kayakers.

Picnic Grounds and Beaches - There are over 50 public picnic grounds and only 3 public swimming beaches (the low number of beaches is due to the fact that Lake Superior remains relatively cold throughout the year and few other lakes are near population centers). There are approximately 20 privately owned picnic grounds and beaches as well as a public pool in Grand Marais.

Rock Climbing - The North Shore Highlands geologic features provide excellent rock climbing opportunities for beginner-to-advanced climbers. Main areas of emphasis include: Shovel Point and Palisade Head in Tettegouche State Park, Carlton Peak in Temperance River State Park, Sawmill Creek Dome and Section Thirteen (both of which are located 2 miles north of Little Marais off of County Road 6), and Johnson Lake (northeast of Finland off Highway 1).

Regional Recreation Patterns

The majority of recreational visitors access the North Shore from the south and drive northeast up the shore during their visit. There is a much smaller secondary flow of visitors that drive south west from Thunder Bay. Visitors generally travel up the shore then turn around and drive back over the same Highway 61 route. Because of the up and back travel pattern, the part of the North Shore that is closest to Duluth receives the most use. The amount of highway use continues to decline up to the Canadian Border. The recreational opportunities that depend on easy access get the most use close to Duluth, such as camping and pleasure hiking at Gooseberry Falls State Park or visiting the historic site at Split Rock Light House State Park. The recreational opportunities that depend on a sense of remoteness get more use further northeast up the North Shore, for instance, canoeing in the Boundary Waters Canoe Area or going dog mushing through the state and national forests near Hovland.

In 1991, the DNR Division of Parks and Recreation, Minnesota Office of Tourism and Minnesota Association of Campground Owners (MACO) together surveyed Minnesota campers. Campers from all across the state who stayed in MACO, local public, State Park, Corps of Engineers and US Forest Service campgrounds were surveyed.

Minnesota Campers Analyzed by Region They Camped In

Compared to the rest of Minnesota, campers in the Arrowhead Tourism Region spend the most money during their camping trips. Those who camped in the Arrowhead are the least likely to camp in a self-contained unit (48%-Tent, 22% Tent Trailer, 13% Motor Home, 11% Travel Trailer, 12% Truck Camper, 1% Fifth Wheel). Twenty percent of Arrowhead campers are not Minnesota residents; and are usually from Wisconsin. The region draws very well from the Twin Cities Metro area with almost half (47%) of the campers originating there. Arrowhead campers are more likely than campers in other regions to hike and participate in self-guided nature observation.

Minnesota Campers Analyzed by Type of Campground Chosen

Compared to campers camping in other types of campgrounds, Minnesota Association of Campground Owners (MACO) campers are most likely to be non-residents who travel from the farthest origins, camp in self-contained units, are new to the campground, and spend the most money. MACO and local public campground campers both strongly desire facilities that support self-contained camping units and only moderately desire outdoor recreation facilities. They were also more oriented to social activities and purchasing goods and services such as visiting with other campers, eating in a restaurant, and shopping for items other than food.

The survey also determined that local public (city and county managed) campground campers are most likely to:

- be seniors
- camp without children
- spend the most money in the local area on a per party per day basis and spend the second most on an overall basis
- have somewhat lower median income levels than other campers
- return to the same campground

State/national forest campers were found to:

- be mostly Minnesota residents
- be active in outdoor recreational activities
- camp in tents versus self-contained units
- be younger than 65
- spend the least amount of money in the local area on a per party per day and an overall basis
- exceed the participation rates of all campers in fishing and boating

According to the campground survey results State Park campers:

- are mostly Minnesota residents
- camp in tents versus self-contained units
- have children in their party
- extensively participate in outdoor recreation activities while camping
- have a high desire for outdoor recreation facilities
- are more likely to hike, swim, bicycle, sight see
- participate in guided and self-directed nature observation
- are more likely to canoe more than campers who use other types of campgrounds.

Supply and Demand of Recreational Facilities

The demand for recreational facilities on the North Shore is high. Data are available for campgrounds, which show that during 1997, campgrounds in the seven North Shore parks averaged 65.6% occupancy compared to a state wide average of 38%. This high rate of occupancy for the North Shore parks shows a need for additional camping accommodations along with recreational facilities in order to fulfill the current demand. The number of private campgrounds on the North Shore has decreased during the last 5 years, probably due to the high cost of infrastructure and the increased value of lakeshore.

The use of the Lake Superior Hiking Trail is much higher then was originally projected. There is great demand for rustic campsites along the trail, particularly during summer and fall weekends. Additional campsites along the trail will not be provided in Temperance River State Park. Some of this demand can be accommodated in Temperance River by reservation in the present drive in or cart in campgrounds. Additional backpack campsites will be needed in the vicinity. Hiking groups are the most difficult to accommodate with the present facilities. The demand for bicycle camping will expand as the Gitchi Gami State Trail is developed. The growth of this visitor group should be monitored.

Temperance River's Role In The Region

To correctly apply the concepts associated with ecosystem based management and benefits based management into park planning, an understanding of how Temperance River State Park affects people other than tourists is needed. Obviously, the opportunities for park visitors to benefit from recreating in Temperance River needs to be of prime importance when planning future park management, but surrounding residents also need to be considered in planning. The day-to-day lives of local residents are affected by the park, it is therefore important to understand how the park can create appropriate opportunities for the local community to benefit as well as park visitors.

Temperance River State Park has always been a small park which focused on visitor services and opportunities and preserving specific high value natural resources, rather than preserving large tracts of natural area. Cooperative management agreements with USFS has allowed visitors to use a much larger land base, usually without knowing there is a difference in ownership and management philosophy.

Many of the key natural features of Temperance River State Park have been open to local residents without the cost of an entrance permit. Cross River is accessible from the MnDOT Wayside Rest, the Temperance River Gorge and Lake Superior shoreline is adjacent to the Temperance River Wayside, and Carlton Peak was routinely used by local residents as a free public campground and picnic area when it was owned by 3M. This history of free and easy access has made Temperance River State Park an integral part of the Schroeder/Tofte/Lutsen community. Community members take great pride in these resources and also take them for granted

The community benefit research conducted thirty miles away at Silver Bay & Tettegouche State park provides some indication of how local residents see Temperance River State Park. Residents living in Silver Bay and other nearby areas believe a

diversity of community benefits are important and that parks contribute to helping communities achieve them. Benefits associated with preserving nature, along with benefits associated with attracting economic revenue, were identified as two of the most important benefits Tettegouche State Park contributes to its surrounding communities. Residents do not see the park only contributing to a certain type of benefit (e.g., economic). For example, providing opportunities for communities to receive economic benefits does not outweigh the fact that communities also receive other types of non-economic benefits from the park, such as community pride, recreational opportunities and outdoor oriented lifestyles.

Zoning



Zoning is used to identify the resource management emphasis, visitor expectations and the level of management activities to be undertaken in various areas of the park. The location of recreational facilities and activities, type of resource management actions, and the degree of trail development for resource protection and visitor safety are each directed through zoning.

Classification

The present Temperance River State Park includes the main park with two campgrounds and hiking areas adjacent to the mouth of the Temperance River, and the Carlton Peak Addition. The Cross River Wayside includes four sections of land one quarter mile inland from Highway 61. The Department of Transportation manages the Cross River Safety Rest Stop where Highway 61 crosses the Cross River. The area surrounding the Highway 61 bridge over the Cross River is not a part of Cross River Wayside.

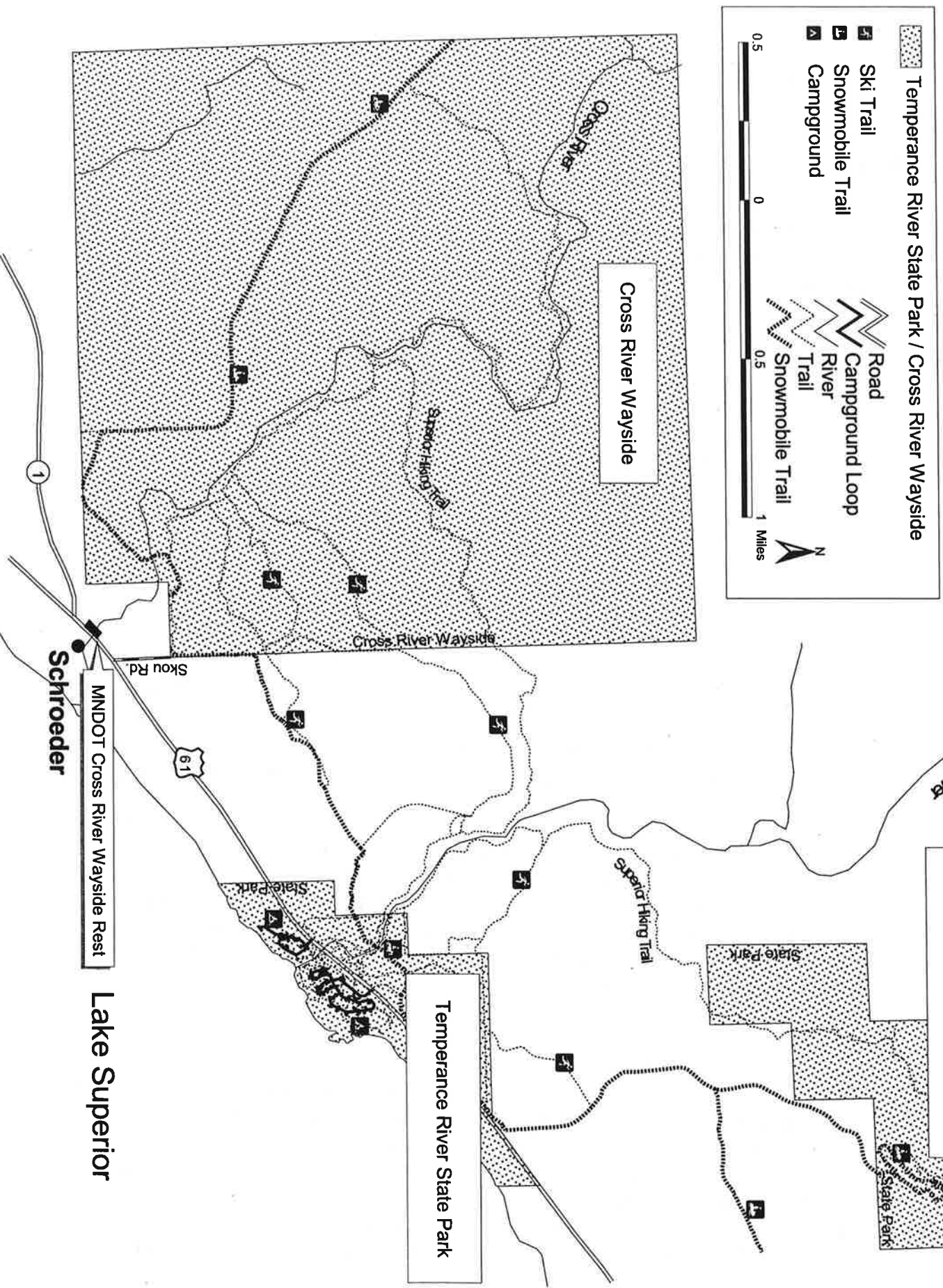
The purpose for a State Park is:

Minnesota Statutes 86A defines a state park as follows: "A state park shall be established to protect and perpetuate extensive areas of the state possessing those resources which illustrate and exemplify Minnesota's natural phenomena and to provide for the use, enjoyment, and understanding of such resources without impairment for the enjoyment and recreation of future generations."

The Purpose for a State Wayside is:

State Waysides are not defined in legislation, but in the 1965 Minnesota Outdoor Recreation Plan they are defined as: "Wayside rests are smaller areas than state parks located along or close to major highways and have scenic, historic or scientific significance. The Department of Conservation's (now Department of Natural Resources) waysides provide travelers with a place to stop, rest, picnic, see historic sites or enjoy the landscape."

Temperance River State Park Classification Map



Proposed Zoning

The following zones are proposed to guide future park development and management. They continue to focus most intensive development near Highway 61 and the Carlton Peak Quarry, and maintain the remote backcountry character of the interior of the park.

Recreational Facilities Zone

This zone includes all the Temperance River State Park near the mouth of the Temperance River except for the Riparian Zone, and the Carlton Peak Quarry area (see Page 30). This zone has been heavily disturbed by man in the past, and with sensitive design, can accommodate recreational development and use.

Resource management will be aimed at maintaining the scenic qualities and recreational opportunities of the site. Rare and interesting resources in the area will be preserved, and development implemented so nearby resources are not unduly impacted. Development will be used to harden areas so they can accommodate visitor use with out deterioration.

Major facilities such as campgrounds, office/visitor center will be located in the Recreational Facilities Zone. New facilities will be designed to blend into the natural setting. Facilities will be designed to allow shared parking lots and utilities where possible to minimize the need for new road development. Outdoor lighting will be limited to low-intensity lights necessary to identify building entrances. Visual impacts from overlooks, trails and Lake Superior will be considered when designing new facilities.

Riparian Protection Zone

The Riparian Protection Zone contains the Temperance River Gorge, Lake Superior Shoreline, and associated steep slopes (see p.30). These are some of the most spectacular and sensitive features in the park. These features attract large numbers of visitors to the area and are important to both the park's and community's identity as well as to tourism.

Resource management in this zone will focus on monitoring plant and animal population dynamics, and managing park visitors to allow them to experience, learn, and enjoy this area without detriment to the resources they come to see. The rocky shoreline of the park has the finest assemblage of plant species of any park on Minnesota's North Shore, including some rare and endangered species, and a number of species more typically found in the Arctic. Long, sloping rock ledges kept moist by seeps provide habitat that allows these relicts of the last ice age to persist today. At the same time both tough and fragile, these plants are able to survive the harsh conditions of the rocky shore, yet they are vulnerable to trampling by people.

Visitors will be guided away from rare and endangered plant species by trail alignment and design. Visitor use will continue to be welcome to use the shoreline and the rock gorge as they have in the past to scramble, stroll or just sit and watch the lake or the river unless the monitoring program indicates that the rare and endangered species populations are being significantly impacted by the recreational use. New recreational development in the zone will be restricted and a monitoring program will be set in place to assess the ongoing health of the plant community. Care will be taken to develop facilities that allow

intensive use of these areas without major resource degradation. Access to some resources may be more difficult to reduce the use of these areas as one way to help protect rare, endangered or sensitive resources. Visitors will also be made aware of the sensitivity of areas so they can choose to minimize their impact.

Backcountry Zone

The majority of the park is designated Backcountry Zone. This zone includes all of Cross River Wayside, and much of the land that is presently owned by the US Forest Service (see p.30).

The Cross River Wayside contains dispersed stands of mature northern hardwoods, white cedar and fine examples of boreal conifer-hardwood communities. Maintenance of these forest communities as part of a large block of uncut forest is a priority in this zone. Primary natural resource management activities will be monitoring and research. Isolated management actions that complement this direction will be considered on a case by case basis. Natural forest processes that do not threaten neighboring lands will be allowed to proceed.

Development in this area will be limited to maintain the remote character of the zone so that park visitors feel removed from modern society. Although the proximity to Lake Superior and Highway 61 and the Temperance River Road allows the sound of trucks, ore boats and airplanes to be heard, visitors may still feel a sense of isolation. Facilities will be primarily limited to trails, remote picnic and campsites and support facilities such as latrines and trail shelters. A variety of trail opportunities, both motorized and non-motorized, will be provided but will be dispersed to minimize conflict. Facilities in the Backcountry Zone will be low impact and will be located to minimize the visual evidence of man-made facilities from scenic vistas and lakes.

Mixed Age Management Zone

This zone is located along the east edge of the proposed park boundary, on both sides of the Carlton Peak Road (see p.30). Most of this zone is now owned by the US Forest Service (USFS), including the large active gravel pit.

The Mixed Age Management Zone encompasses areas east of the Temperance River where more forest harvest has occurred recently and where the USFS has created and maintained forest openings for the benefit of wildlife species like deer and ruffed grouse.

Parks will work cooperatively with DNR Division of Fish and Wildlife, and the Division of Forestry to manage plant communities in this zone. This zone will provide opportunities to experiment with a variety of forest management and restoration methods as well as maintaining young stands. Management methods used will minimize pesticide use and treatments that have a high risk of compacting or removing soil.

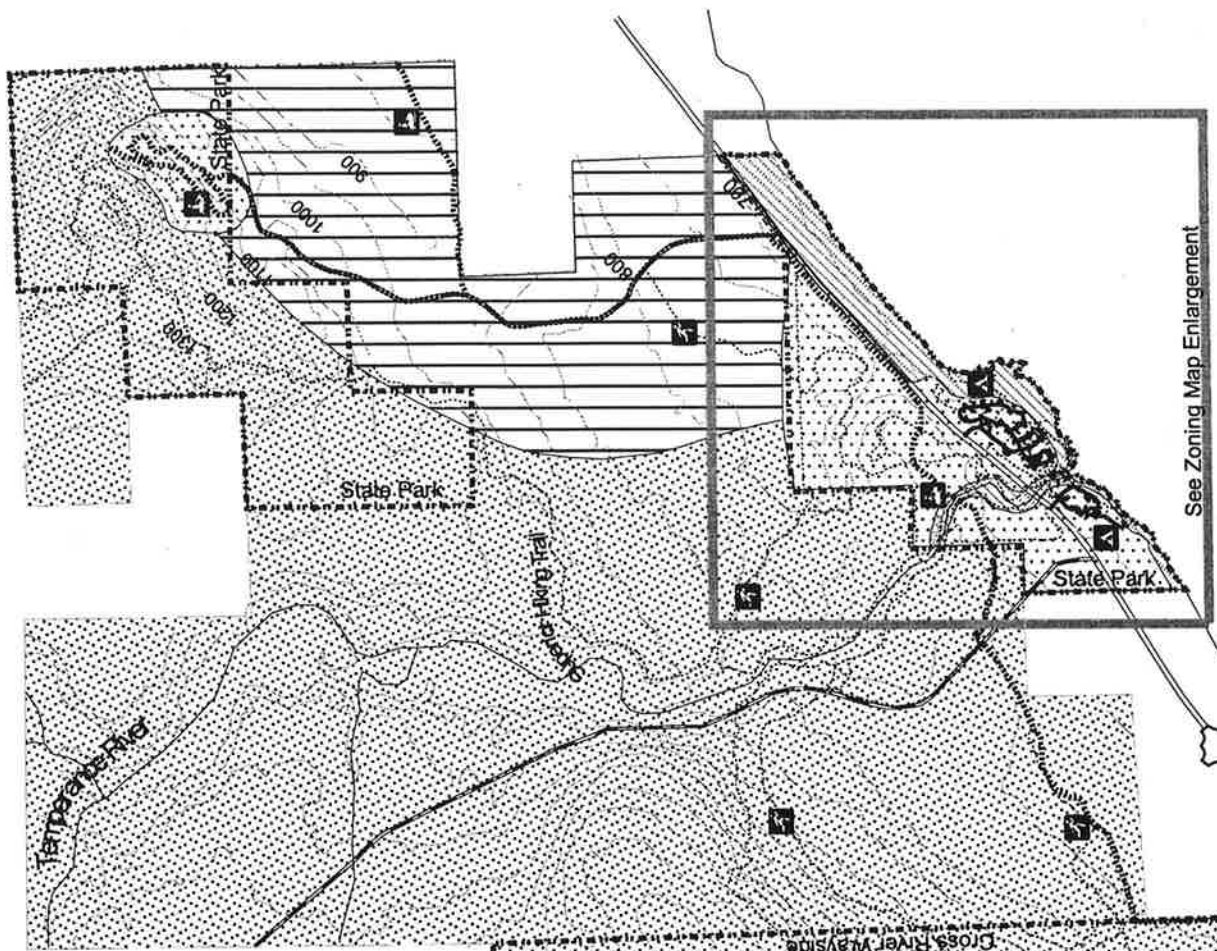
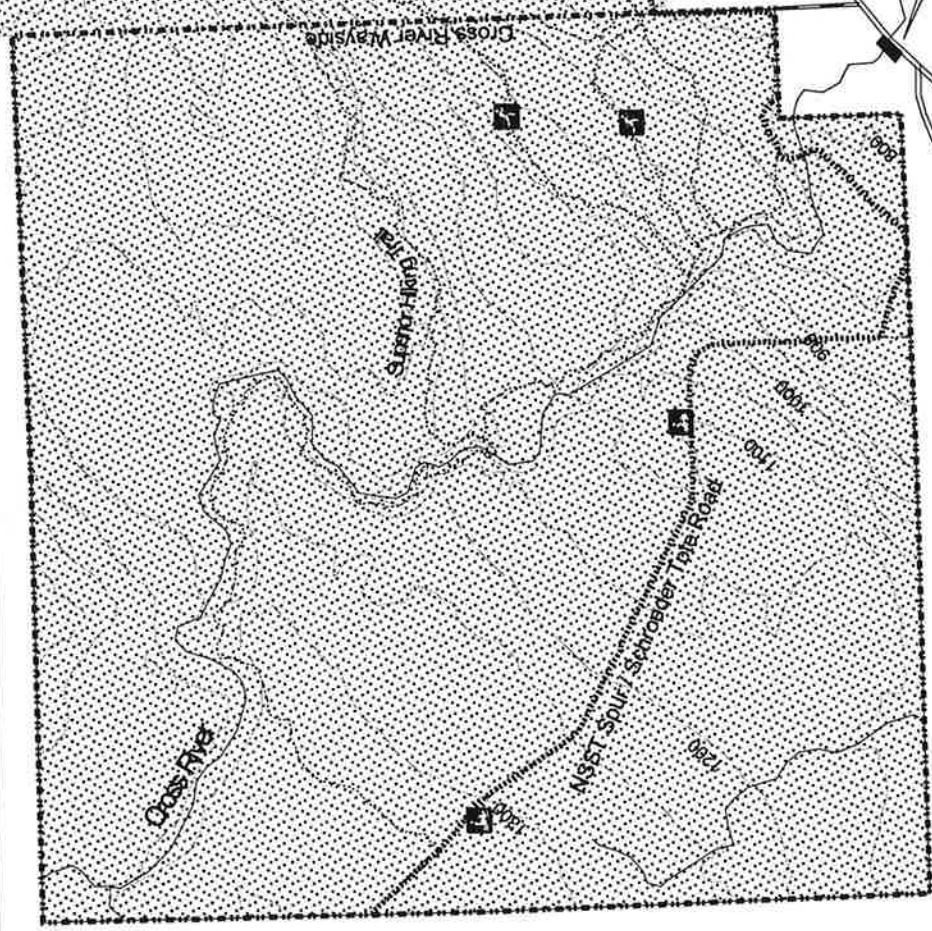
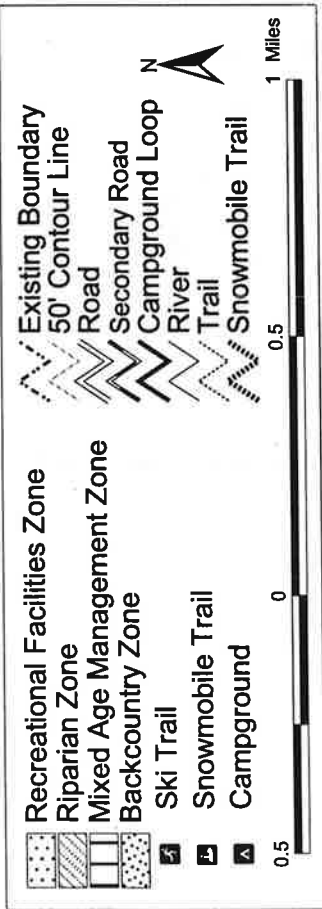
Visitor Benefits By Zone

Park visitors will be able to achieve similar, but slightly different benefits in different park zones. Park visitors in the Recreational Facilities Zone and the Riparian Protection Zone will have the opportunity to: affiliate with others and build family togetherness, but with also for privacy; learn about natural and cultural resources in a variety of ways; experience new and different things; escape from the usual demands of life, get away from crowds and rest mentally.

In the Backcountry Zone, park visitors will have the opportunity to escape, to experience solitude, get away from crowds, and enjoy the smells and sounds of nature; to learn about nature through experience and personal interaction; to enhance physical and mental health through physical exercise, building a sense of self-pride, and gain a greater sense of independence.

Park visitors in the Mixed Age Management Zone will be able to observe more wildlife species that inhabit mixed age stands and edge conditions. More spatial diversity will be present along the Carlton Peak Road, which will provide varied views for visitors. Park visitors will have the opportunity to: learn about nature through experience and personal interaction; experience new and different things; experience solitude; escape from the usual demands of life, get away from crowds and rest mentally.

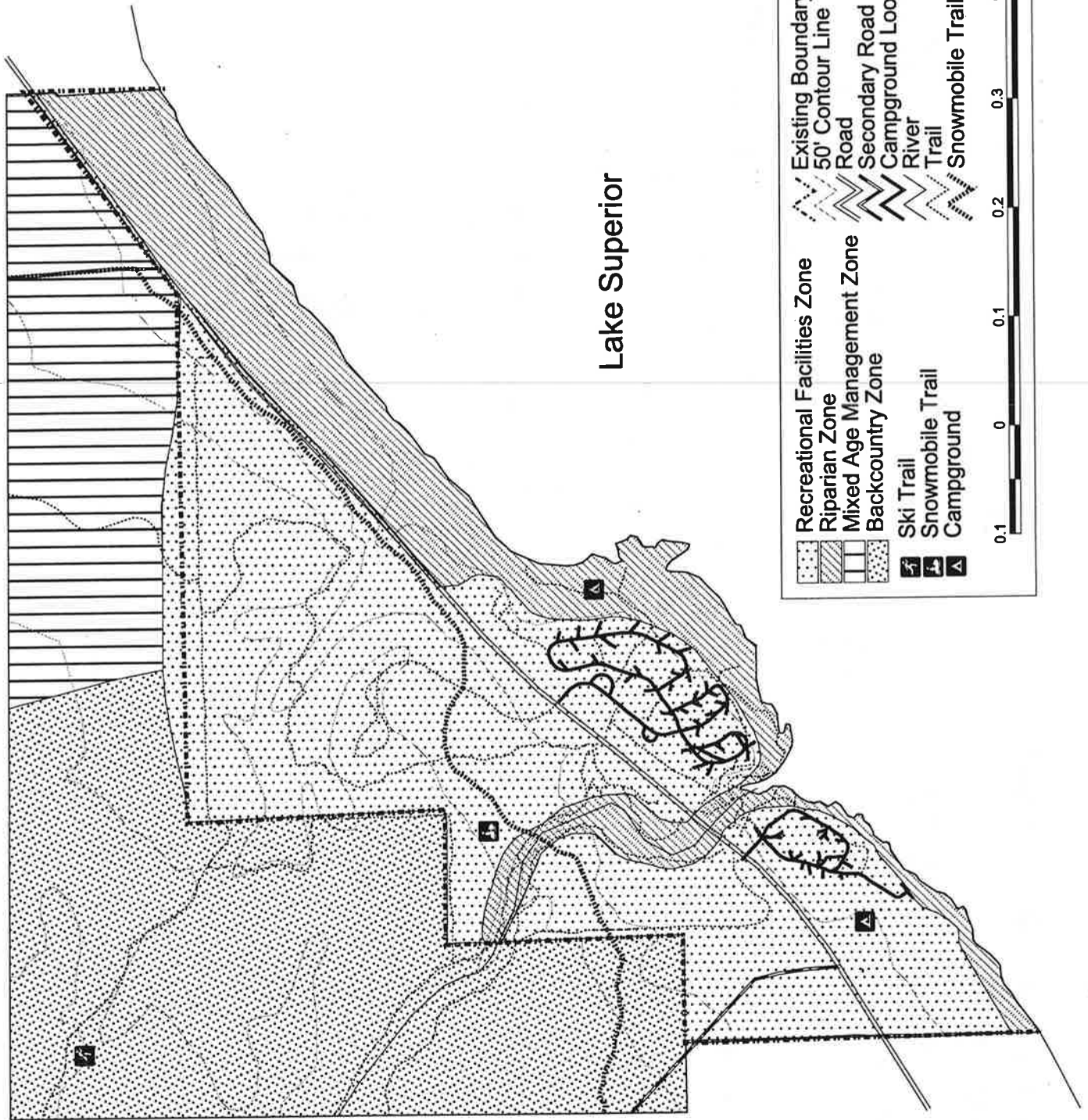
Temperance River State Park Zoning Map



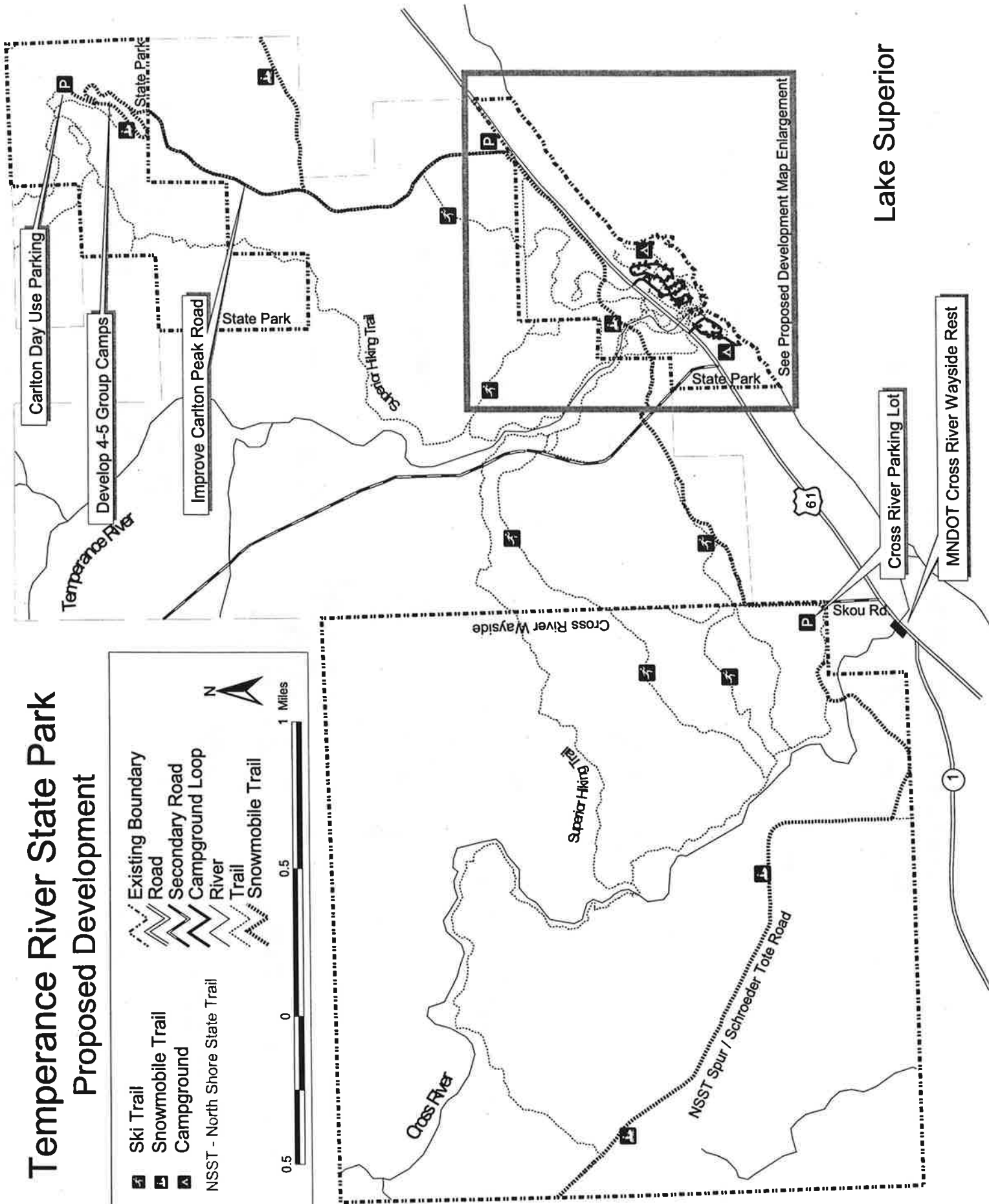
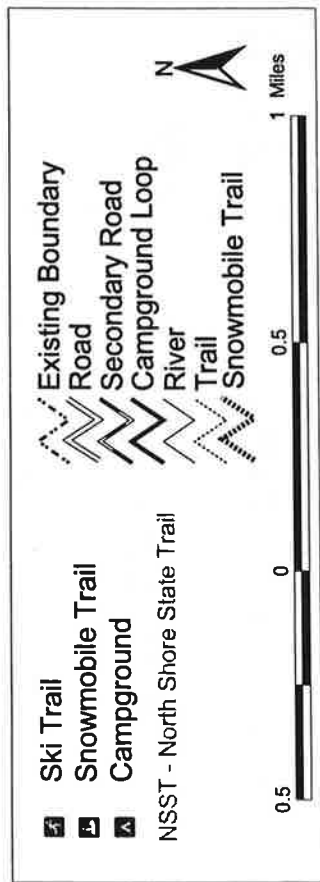
Lake Superior

MNDOT Cross River Wayside Rest

Temperance River State Park Zoning Map Enlargement

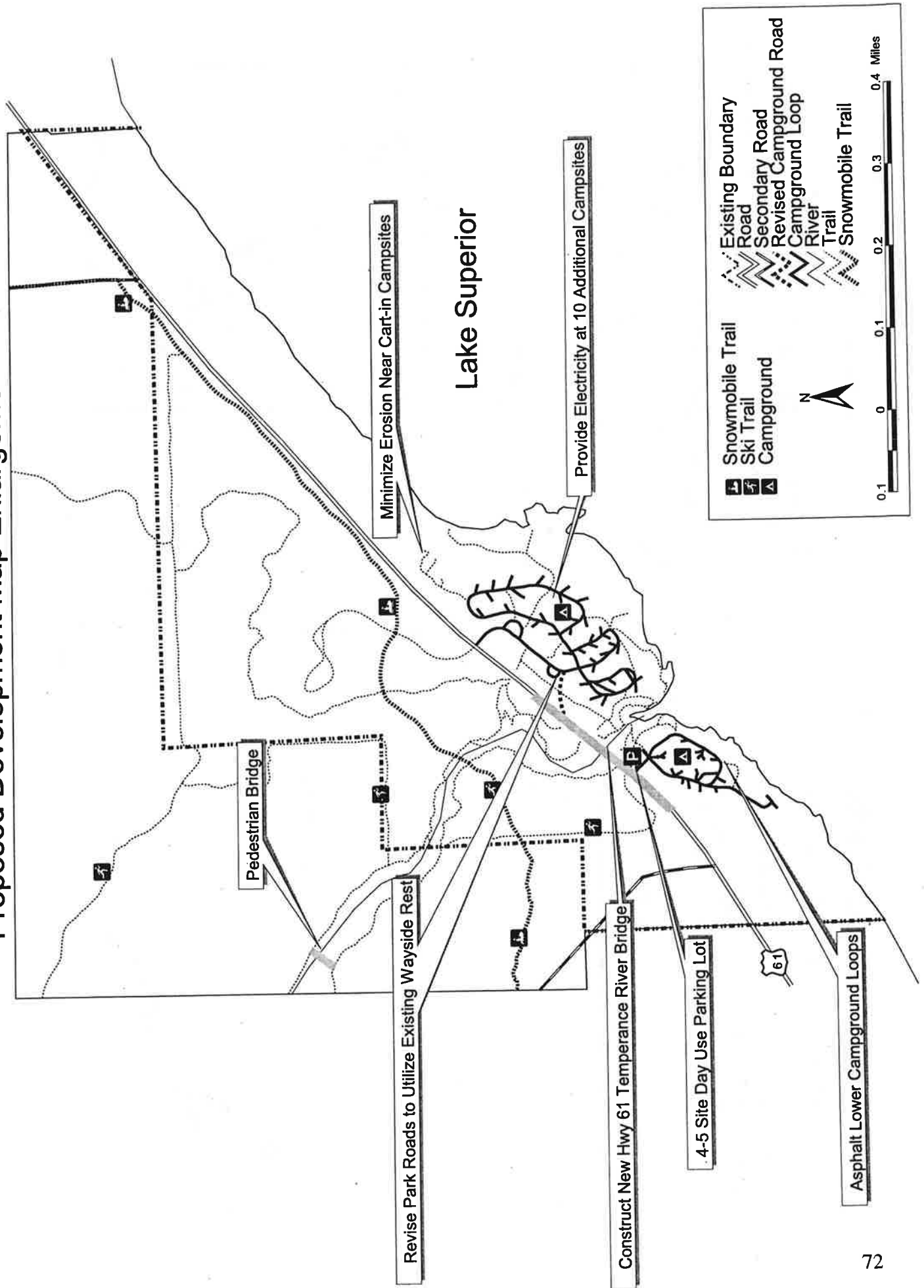


Temperance River State Park Proposed Development



Lake Superior

Temperance River State Park Proposed Development Map Enlargement



Pave Lower Campground Loops.

The loop road through this campground should be paved with asphalt to reduce erosion and minimize dust in the campsites.

Develop 4-5 Group Camps.

There is high unmet demand for group camps along the North Shore. Many groups visit the area to camp, hike, rock climb, canoe, kayak and sightsee. The need for camping along the Superior Hiking Trail is also growing. The Carlton Peak area gets lots of use by groups, primarily rock climbers, but also hikers on the Superior Hiking Trail. There is room on the gravelly rock quarry spoil piles to provide group camps with minimal impact on sensitive resources. A variety of designs to accommodate a broad variety of camping opportunities, from walk in campsites to drive-in spurs would be desirable. These group camps will be designed to use the various levels in the quarry, and situated so they are separated and don't unduly affect the scenic vistas of other park visitors.

Rock Climbing

The North Shore Highland's geologic features provide excellent rock climbing opportunities for beginners to advanced climbers. Carlton Peak located in Temperance River State Park is also open to rock climbing.

Rock climbing at Carlton Peak will be managed through the Minnesota State Parks Rock Climbing Policy.

Sea Kayaking

The Superior Water Trail established in 1993 by the Minnesota Legislature will eventually extend from the St. Louis Bay in Duluth to the Pigeon River on the Canadian border. The first phase of the trail opened in 1994 connecting Gooseberry Falls State Park and Tettegouche State Park, a distance of approximately 20 miles.

Sea kayak access is available at the mouth of the Temperance River. The gravel beach near the mouth of the river provides acceptable access on and off the lake during most weather conditions. Camping in state parks is only allowed in designated campsites. Camping opportunities for sea kayaks in Temperance River State Park are provided in the Lower Campground southwest of the Temperance River. Sea kayakers can reserve these sites.

Trail Recreation

Vehicle traffic is limited to access to major public use facilities such as camping, picnicking areas and trail center parking areas. The trail system provides a variety of recreational opportunities and access to park resources and attractions. Only short developed trails have been provided totally within Temperance River State Park. The park is surrounded by USFS land. The long distance snowmobile and cross country ski trails have been provided across USFS land through cooperative management agreements. The proposed boundary change and land exchange would allow the State of

Minnesota to acquire these lands in the future. See Park Boundary Description Section for more information.

Develop a Cooperative Management Agreement with the Superior Hiking Trail Association.

The Superior Hiking Trail, a long-distance footpath, envisioned to stretch from Duluth Minnesota to the Canadian border is substantially completed, with only a few small gaps, from Two Harbors on the southwest to the Canadian border on the northeast. The Superior Hiking Trail allows hikers to enjoy the solitude of the Cross River Wayside interior and leads hikers through the more intensively developed and used Temperance River Gorge area and on to Carlton Peak. Hikers follow past the base of the climbing cliffs, and then up a gradual trail to a panoramic vista from the top of Carlton Peak. This is a different peak and view than the one that has been quarried. The trail continues on out of the park to Britton Peak, which is managed by USFS. The Superior Hiking Trail Association (SHTA) was incorporated in 1986 to coordinate construction of the Trail. SHTA continues to be responsible for maintenance of the trail as well as completing the original trail vision. An easement was granted by the DNR to the SHTA to develop the trail across state park lands. The agreement stipulates that state parks will assume responsibility for on-going maintenance of the trail within park boundaries. A Cooperative Management Agreement is needed to define the relationships and responsibilities of each party.

Temperance River Hiking Bridge

The present plan calls for another hiking bridge across the Temperance River. There was support for continuing this recommendation, although some people were concerned that this will add additional impact on the riverine environment. Both the ecological and visual impact of a hiking trail bridge will be assessed during the site selection process.

Temperance River Gorge Trails

The Temperance River Gorge is an area where the Temperance River has scoured the bedrock, slowly cutting deep whirlpools and channels into it. At present visitors wander across the exposed bedrock enjoying the power and beauty of this stream. There are rapids and waterfalls at every turn. Future trails will not attempt to fence visitors away from all drop offs & irregular terrain, but rather define a recommended path which has railings at the most potentially hazardous areas.

Temperance River Cross-Country Ski Trails

The ski trails network now in use between the Temperance & Cross Rivers will be maintained. The trails in Temperance River State Park will remain narrow, remote, and groomed with narrow equipment to provide a different experience from the wider, more highly groomed private trails provided by Lutsen Tofte Tourism Association.

Retain existing Snowmobile Trails

The present two main snowmobile trails will be retained through Temperance River State Park, the Schroeder Tote Road, and the Lynx Trail, with a short spur trail up through the Carlton Peak Quarry. These trails provide good access between Schroeder, Tofte, Lutsen, the North Shore State Trail, and the scenic highlight of Carlton Peak Quarry.

Schroeder Tote Road

The USFS, DNR & the Town of Schroeder all have an interest in the future use of the Schroeder Tote Road. The legal standing of the road is in question. These three units need to discuss the future uses of this alignment and come to an agreement that provides for recreational opportunities, reasonable access, and resource preservation.

OHV Use

OHV (Off Highway Vehicle) use is not allowed on state land within state parks managed by the Division of Parks and Recreation, according to State Park Rules. Land not managed by the Division of Parks and Recreation within the statutory boundary of a state park is not bound by this rule. There is some OHV use of the Schroeder Tote Road. While the ownership and management authority of this road is in question, OHV use of it will be determined by joint agreement between USFS, DNR & the Town of Schroeder.

Snowshoe Trails

A short snowshoe trail loop is now provided along the Temperance River Gorge. For longer hikes, the Lake Superior Hiking Trail from the Temperance River Gorge, over Carlton Peak to the Sawbill Trail is identified as a good snowshoe route. These safe, well defined routes will be retained as an alternative to the off trail snowshoeing done on other public land.

Gitchi Gami State Trail

The Gitchi Gami State Trail has been designated from Two Harbors to Grand Marais. It is being planned. When completed it will be heavily used by bicyclists and hikers to Temperance River State Park. The trail should cross the Temperance River on the existing Highway 61 bridge once the new Highway 61 bridge is completed. The trail will stay on the land side of Highway 61. In the interim, the trail will enter the west side of the park and cross the Temperance River Snowmobile Bridge. The trail will continue through the park until it exits near the powerline right-of-way on the eastern edge of the park. A spur trail will connect to the park office where secure bike parking and lockers for pack storage will be provided. A bicycle rack will also be provided near the Temperance River Bridge to allow visitors to lock up their bikes and walk the pedestrian trails along the river gorge and down to Lake Superior.

Other Development

Provide Day Use access to Carlton Peak

Easy access to an improved overlook will be provided at Carlton Peak. This overlook will allow all visitors to enjoy the spectacular views of the surrounding countryside and the distant Lake Superior. A more difficult hike will allow visitors to enjoy the full 360

degree panorama of Lake Superior, Superior National Forest, the rest of Temperance River State Park, and the surrounding area. The desire is to make the overlook facilities handicapped accessible if possible without unduly impacting the park resources or scenic quality of the area. The total extent of the area that will be handicapped accessible will be determined during the detailed design process.

Review all the signs within the park.

Make sure signs necessary for park visitor information are available and in compliance with the DNR sign manual.

ADA Requirements

The intent of this plan is to provide easy access for everyone to some of the most significant park resources, while still maintaining a remote difficult access to many other areas of the park. A trail along the west side of the Temperance River will have a fairly level grade, and provide a good view of the mouth of the Temperance River and Lake Superior. The day use access to Carlton Peak will provide a great long distance view of the surrounding forest and Lake Superior. The potential exists to provide a level trail from the wayside rest parking to the Temperance River Snowmobile Bridge once the new highway 61 bridge is built. From there, people can see up and down the Temperance River Gorge and experience the power of running water. Some of the campsites are accessible.

The Department of Natural Resources follows the American Disabilities Act of 1992 to make public facilities accessible. All DNR development follows the guidelines described in the "American With Disabilities Act Accessibility Guidelines For Buildings And Facilities"¹⁰. In addition, recreational development also follows the recommendations and guidelines proposed in "Recreational Facilities and Outdoor Developed Areas"¹¹. These guidelines were developed to address those outdoor facilities that are not adequately covered in the Building and Facilities Guidelines.

Emergency Management Plan

Emergency planning is essential to maintain the safety of the 280,000 visitors to the park each year. It is also essential to the role of protecting the park's natural and cultural resources for future generations and the park's facilities. The park emergency plan addresses each of these areas.

Park staff may be expected to respond to incidents ranging from lost hikers, minor injuries and medical conditions to major trauma of rock climbing or trail accidents and wildfires or structure fires involving or threatening park buildings. The park works closely with law enforcement, local rescue squads and fire departments to develop emergency response plans.

Action 1: The park will work with law enforcement, local rescue squads and fire departments to ensure that emergency plans are up to date and that emergency response is coordinated. The park will cooperate with the agencies on training and education.

Action 2: The park will work with the DNR Divisions of Forestry and Fish and Wildlife to develop an emergency fire management response plan for Temperance River State Park. The plan will address the level of response appropriate for various locations in the park. It will address the level of attack appropriate to ensure visitor and facility protection while not irreparably damaging the park resources.

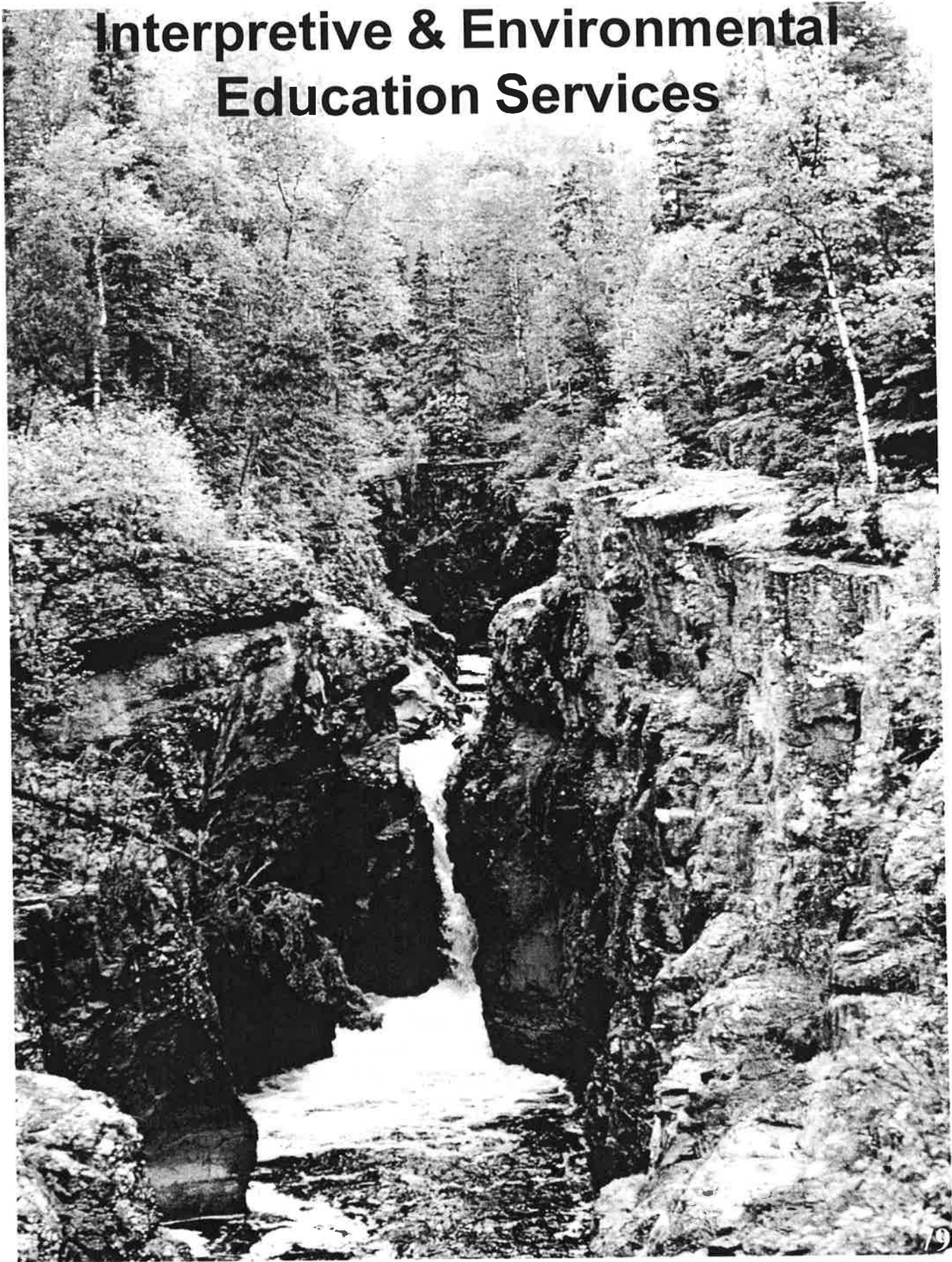
Research Needs and Priorities

Research and monitoring is a key to successful long-term stewardship of the park's natural resources and to understand and provide for visitor and community needs in a

sustainable fashion. It's very important that good science is available to make decisions that affect park resources. It's also critical that the results of management actions are measured so that we learn from our mistakes and build on successes.

- Encourage survey efforts of the park's natural resources including identifying locations and habitats of the park's rare plants and animals.
- Develop or acquire practical methods of monitoring key resource concerns. Examples of identified concerns include: deer impacts to vegetation, visitor impacts to vegetation on the Lake Superior shoreline, trail erosion, and the success of restoration projects.
- Implement monitoring programs for key resource concerns. Tie information gained from monitoring programs to management decisions such as: funding requests for resource maintenance and restoration, trail maintenance priorities and funding needs, and whether to improve or limit access to certain areas.
- Work to strengthen and develop relationships with colleges and universities and encourage them to use Temperance River State Park as a study site.
- Develop a catalog of research and monitoring priorities so that the park's needs become better known by those in the research and educational communities.
- Work with other divisions in DNR and other agencies to conduct research and share findings.
- Continue geologic research on the forces that shaped the park so displays can be prepared for visitors to help them understand these forces.
- Further assessment of Benefits Based Management (BBM).
- Monitor and document the level of visitor satisfaction with park service and recreational experiences.
- Survey park visitors to identify changing visitor trends.
- Analyze park visitors' sensitivity to interaction with other visitors depending on location and activity.

Interpretive & Environmental Education Services



Introduction

The purpose of an interpretive services plan is to provide a working document that clearly describes the level of interpretation at a specific park. This plan identifies the park's resource themes and the strategies and methods recommended to interpret them to park visitors. These resources and themes along with individual work plans will communicate the expectations for interpretation at the park. This section supplements, and is consistent with, the statewide interpretive plan.

As a division of the Minnesota Department of Natural Resources, the Minnesota State Parks and Recreation system seeks to contribute to the DNR's mission.

"We will work with the people to manage the state's diverse natural resources for a sustainable quality of life."

A significant tool in achieving this goal is interpretation. Minnesota State Parks Interpretive Services provides first-hand, resource-based interpretation for all state park clientele in order to help establish a sense of stewardship for the state's natural and cultural resources. Interpretive services provided in state parks and off-site outreach programs, are recognized as environmental education opportunities that serve all park clientele.

Minnesota State Parks Interpretive Services Goals

The Division of Parks and Recreation views interpretation as a site specific, DNR sponsored, communication process using recreational and environmental experiences to reveal the meanings and relationships of our natural and cultural heritage. To fulfill the DNR's legislated obligation to provide environmental education and interpretation in state parks, the Division's interpretive programs aim at four goals to:

1. promote increased understanding, appreciation and enjoyment of natural and cultural resources in Minnesota
2. assist in protecting each State Park's resources
3. promote public understanding of, and support for, the Minnesota Department of Natural Resources and its Division of Parks and Recreation
4. increase public awareness of critical environmental problems on a local, state, national and worldwide scope

Interpretive Themes

The themes listed are for the primary resources listed in the Inventory section. A theme is a statement or question that is stated simply and clearly, and contains one major idea or concept. Themes should be easily identified and relevant to the resource, the area, the visitor, and the interpreter. The interpretive theme is the title to the story you want to tell.

- What forces built Temperance River Park?
- Lava flows and the Temperance River Gorge
- Glaciers along Lake Superior
- Old glacial lakes and their beaches

- Peaks of the North Shore
- Potholes and the Temperance River Gorge
- Lake Superior rock garden, a special place
- Plants from the far north
- Ephemeral pools, tiny ponds on a rocky shoreline
- Temperance River, what & why
- Why is the water brown
- What made this gorge so narrow?
- Mining at Carlton Peak
- The early years
- The later years

Summary Of Existing Interpretive Services

Personal Interpretation

There are no interpretive staff assigned to Temperance River State Park. Naturalists from other State Parks have occasionally provided programs at Temperance River State Park and they were well received.

Non-Personal Interpretation

Geologic interpretive signs are located along the Temperance River Gorge. Directional signs, trail and "you are here" signs are provided through the park.

Staff

No interpretive staff are assigned to Temperance River State Park.

Facilities

No facilities, other than the park office, exist for interpretive activities.

Resource Management

No interpretive information is provided on resource management in Temperance River State Park.

Cooperative Interpretive / Environmental Education Analysis

There are several museums along the North Shore.

- Four Lake County Historical Society museums in Two Harbors focus on cultural interpretation.
- One private museum in Two Harbors deals specifically with the fur trade.
- The Minnesota Historical Society has a historic site at Split Rock Lighthouse, that addresses site-specific history, as well as some shipping history. The Lighthouse has full-time staff, with year-round hours, increasing in the summer.
- A private museum in Tofte interprets the commercial fishing history of Lake Superior.

- The Sugar Loaf Interpretive Center Association has plans for natural history and cultural interpretation facilities at Sugar Loaf Landing north of Tofte in the future.
- Cook County Historical Museum is in Grand Marais.
- Johnson Heritage Post is in Grand Marais.
- The Gunflint USFS Ranger Station in Grand Marais has interpretive displays.

The only environmental education services in the area are at the Wolf Ridge Environmental Learning Center near Finland. This private non-profit center offers formal programs to schools throughout the state, with a limited number of programs available to other groups. Almost all of Wolf Ridge's programs are done on site, with groups scheduled far in advance. Residence facilities are provided for their visitors.

Five other State Parks are within 50 miles of Temperance River State Park. These are Gooseberry Falls, Split Rock Lighthouse, George Crosby-Manitou, Cascade River and Judge C. R. Magney. Of these, only Gooseberry Falls has a year-round naturalist. Grand Portage State Park, which is 70 miles away, also has a year-round naturalist/assistant park manager. Some assistance is available from Gooseberry Falls and Grand Portage staff for specific issues. All parks offer non-personal interpretation in the form of self-guiding trails or displays.

Interpretive Services Proposals And Project Priorities

According to the Minnesota State Park Interpretive Services Plan, recommended actions are to increase non-personal efforts and to provide occasional programming from a North Shore area naturalist.

Staffing

Occasional Area Naturalist Programming

The statewide Interpretive Service Plan proposes occasional programming from an area naturalist at Temperance River. The park's outstanding resources, its year-round clientele and opportunities for interpretation at neighboring parks justify a year-round position to be shared with Crosby-Manitou and Tettegouche State Parks. In the short term, occasional programming from the Gooseberry Falls or Grand Portage naturalist is recommended.

Non-Personal Interpretation

Value Added Interpretation

The interpretive effort at Temperance River should work at adding value to the park guest experience. The park's special resources can be protected and enjoyed by park guests when they have a better understanding of the special nature of the park. Adding non-personal interpretation to the site would provide this added value. The locations of the non-personal interpretive experience would be developed through cooperation with the resource and park management teams. Their goal would be to educate the park guest and protect the resource. The actions would include directional, informational and interpretive signs.

Other Actions

Cooperative Agreements

Cultivate cooperative agreements and programs with other area providers for environmental education and interpretation.

Evaluation Of Actions

Evaluation of the recommendations and actions outlined in the plan will be done on an ongoing basis by the park management team, regional naturalist and interpretive operations coordinator. This plan is intended to be a guide for planning and implementing interpretive services. Position descriptions and work plans will need to be developed and consulted.

Cumulative Impacts



The goal of this management plan, as stated in the Temperance River State Park Mission Statement, is to “... manage the park so that its natural, cultural and scenic resources are protected and enhanced while providing recreational and educational opportunities for park visitors. As objectives were developed for natural and cultural resource management and protection and for recreation resource management, their effects on the park were considered. This section considers the cumulative effect these objectives will have on park resources and visitor experiences.

Natural and cultural resource management and protection

The resource direction and actions in the plan represent a commitment to:

- manage large block for old forest values with minimal human impacts
- maintain diverse and healthy native plant and animal populations with a focus on species of special importance, i.e. peregrines, uncommon shoreline and cliff plant communities
- using research and monitoring to guide management decisions ranging from wildlife to trail construction and maintenance techniques, to decisions on future development
- protect and, where appropriate, restore the park's cultural resources
- maintain natural aesthetic and scenic qualities.

Recreation Resource management

The plan allows for a diversity of visitor experiences, while renewing and strengthening our commitment to manage the park interior for opportunities for solitude. The development proposed in this management plan includes:

- new Hwy. 61 bridge
- construction of 4-5 group camps
- minor park road realignment
- construction of a bicycle trail through the park
- construction of a small picnic shelter.

All of the recreational development proposed in this plan directly impacts only areas that have been significantly disturbed in the past. Recreational activity will be focused in two areas, near Hwy. 61 and in the Carlton Peak Quarry. Most of the park will continue to be managed for its remote backcountry character with very limited development.

These developments will also result in some increased visitor use, although the amount that can be ascribed to the proposed developments is not clear. The group camps will be far enough removed from the present high use areas that visitors there will not add a significant amount of use to the Temperance River Gorge or Lake Superior shoreline areas. Most of the additional impact will be in the already disturbed quarry area, and the disturbed portion of Carlton Peak. Some additional impact will be experienced by the climbing cliffs and the observation tower site part of Carlton Peak. Both areas can withstand some additional use without significant damage. Increases in use and corresponding impacts should be less in the interior areas of the park.

Some trails, such as those to the Temperance River Gorge area, are expected to require additional development to accommodate the use they receive. Trail work will be aimed at

preventing trail erosion and widening, and at eliminating unnecessary obstacles to visitor access.

The Division of Parks and Recreation believes that the level of development proposed in this plan is consistent with our mission to provide appropriate recreational opportunities while protecting the state's outstanding resources. We believe that the proposed development is a measured and conservative response to the large and growing demand for new recreational facilities and opportunities on the North Shore.

We recognize that the proposed development may have negative impacts on some visitor experiences. By concentrating the physical development in one area, the level of visitor use and interaction in and near those facilities will increase. This may result in changed experiences for visitors in these areas. Conversely, with concentrated development, the quality of backcountry experiences should be maintained near present levels.

As visitor service and resource management actions are implemented, we will continue to monitor their impacts on the park's resources and on visitor experiences. With this information we can adjust our management to ensure that the park's resources are maintained and enhanced for future generations and that visitor experiences are maintained.

Park Boundary Description



The existing statutory boundary of Temperance River State Park and Cross River Wayside includes approximately 3,059 acres. Of the land within the statutory boundary: 1,139 acres is state owned and managed by the Division of Parks and Recreation; 1,880 acres are federally owned and managed by the USFS; and approximately 40 acres are privately owned. The state owned land is in three separate pieces: 219 acres at the mouth of the Temperance River and one mile of Lake Superior shoreline, 600 acres that includes a section of the Cross River (in the Cross River Wayside), and 320 acres that includes Carlton Peak.

Proposed Boundary Modifications

State Park boundaries are established by the Minnesota Legislature. Statutory boundaries serve to identify lands appropriate for inclusion in the park. State parks are authorized to negotiate acquisition of land only within the boundary. The state does not have the authority to acquire park land except from willing sellers, nor can they be required to sell to the state. Inclusion in a park boundary does not limit what private landowners may do with their property.

Boundary modifications are considered during all state park management planning processes. Although this plan can recommend boundary changes, only the Minnesota Legislature can change park boundaries. All boundaries are legally described in Minnesota Statutes. When an addition to a park is considered, the DNR Division of Parks and Recreation will contact private landowners that would be within a proposed boundary and ask for their documented support. Appropriate local units of government will also be contacted for their support. Without the support of the community, the Division of Parks and Recreation will not request boundary changes from the Minnesota Legislature.

The USFS manages the land between the three separate portions of state owned land. Through a Memorandum of Understanding, State, county & private foundations have developed and maintained trails across the USFS land for many years, providing snowmobile, cross-country skiing, and hiking opportunities between the three areas. The USFS and Minnesota State Parks have different missions and objectives, so although this situation has worked reasonably well so far, it is not a good long term solution.

Connect Three State Park Parcels

The primary reason for the boundary change is to establish a statutory boundary that connects the three disparate state park parcels. This would allow the state to negotiate a land exchange that would transfer custodial control of these lands from the USFS to the DNR Division of Parks & Recreation. The state lands that would most likely be traded are Trust Fund Lands in the Boundary Waters Canoe Area. If Trust Fund Lands are used in the land exchange, then the Trust will have to be reimbursed for the fair market value of the property. For both recreation diversity and resource management considerations, hunting will be allowed on the inland side of Highway 61. This proposal has been developed with the support of USFS staff and the Temperance River Citizen Advisory Committee.

At present the land ownership in the present three parcels are as follows

	Acres in Statutory Boundary	State Ownership	USFS Ownership	Private Ownership
Temperance River State Park	219	219	0	0
Carlton Peak Addition	320	320	0	0
Cross River Wayside	2,520	600	1,920	40
Connecting Land	2,000	0	2,000	0
Total	5, 059	1,139	3,920	40

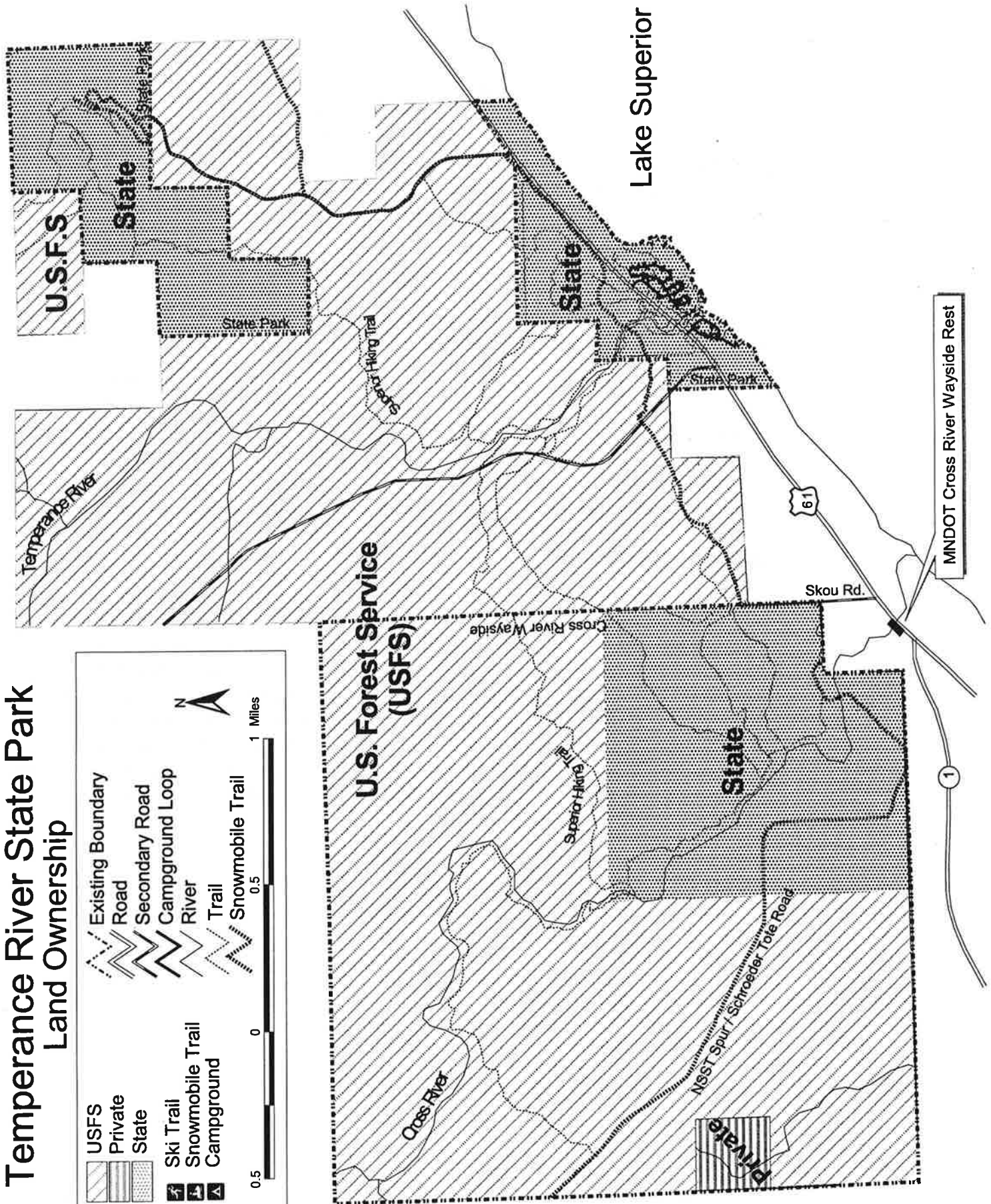
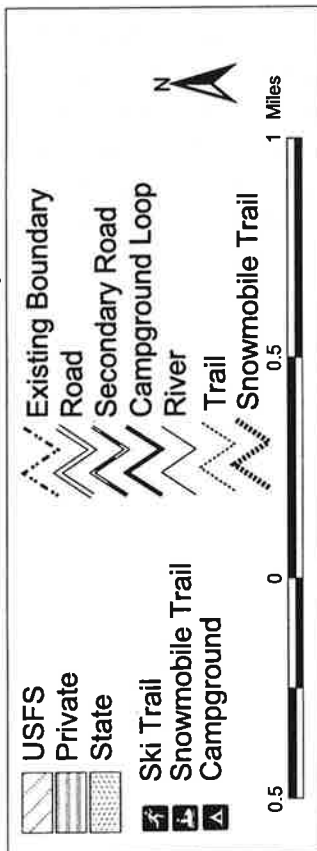
USFS Gravel Pit

Support lower local construction costs by allowing gravel to be removed before the land is exchanged. The large gravel pit in Township 58 N.- Range 4 W., Section 29 will continue to be managed by the USFS until the present gravel deposit has been exhausted. The area will then be rehabilitated to blend with the surrounding environment before being transferred to the State. In this way the present uses can be accommodated, but the long term direction will be to be managed as part of Temperance River State Park.

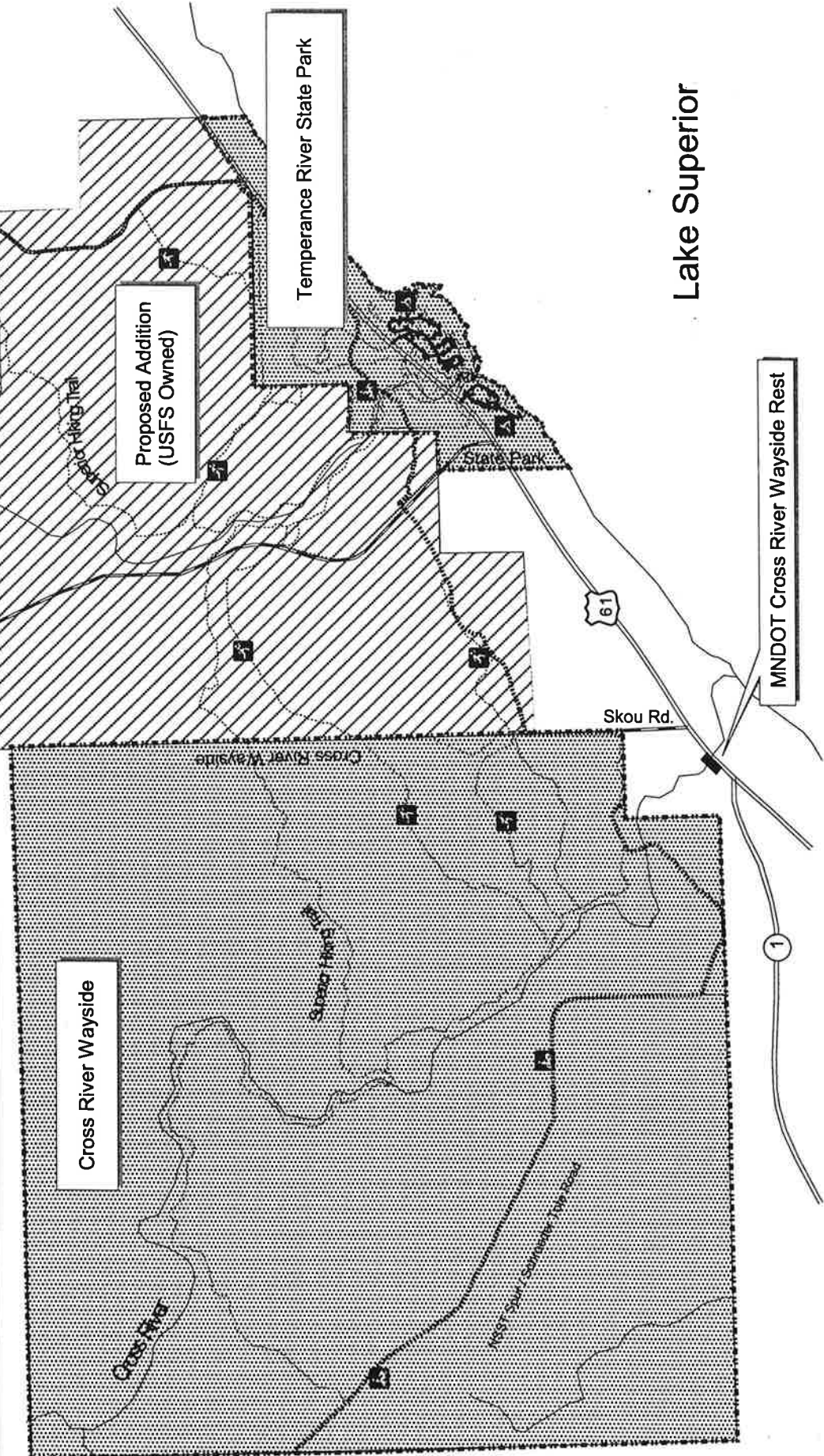
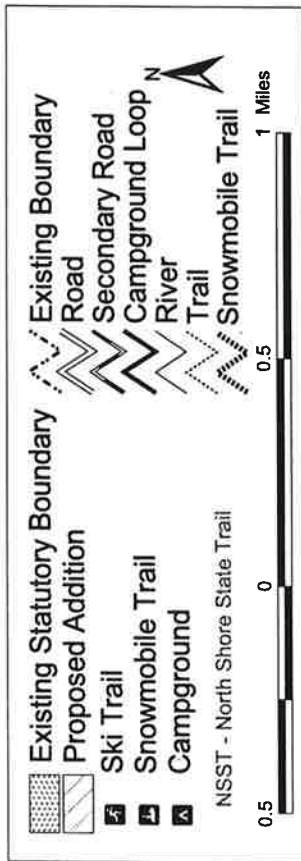
Cross River Wayside Rest

Trail connections are needed between the MnDOT Cross River Wayside Rest, and the DNR Cross River Wayside. With the realignment of Highway 61 through Schroeder, the amount of parking provided at the wayside will be doubled. Private land on the Cross River is posted, so travelers can not follow the river upstream from the MnDOT Cross River Wayside. Access around this private land can be accommodated by developing a path along the city street to the Cross River Parking Lot and then upstream along the river. The private land owners could also be approached to see if they would sell a trail easement along the river. This land is outside the Temperance River State Park Statutory Boundary, so it would have to be pursued by some other public or private organization.

Temperance River State Park Land Ownership



Temperance River State Park Statutory Boundary Modification



Lake Superior

Facility & Building Management



Management Objectives

Provide facilities for the safe use and enjoyment of the park.

Maintain infrastructure to protect the public investment.

Proposed Development

Maintain park infrastructure through annual work plan development.

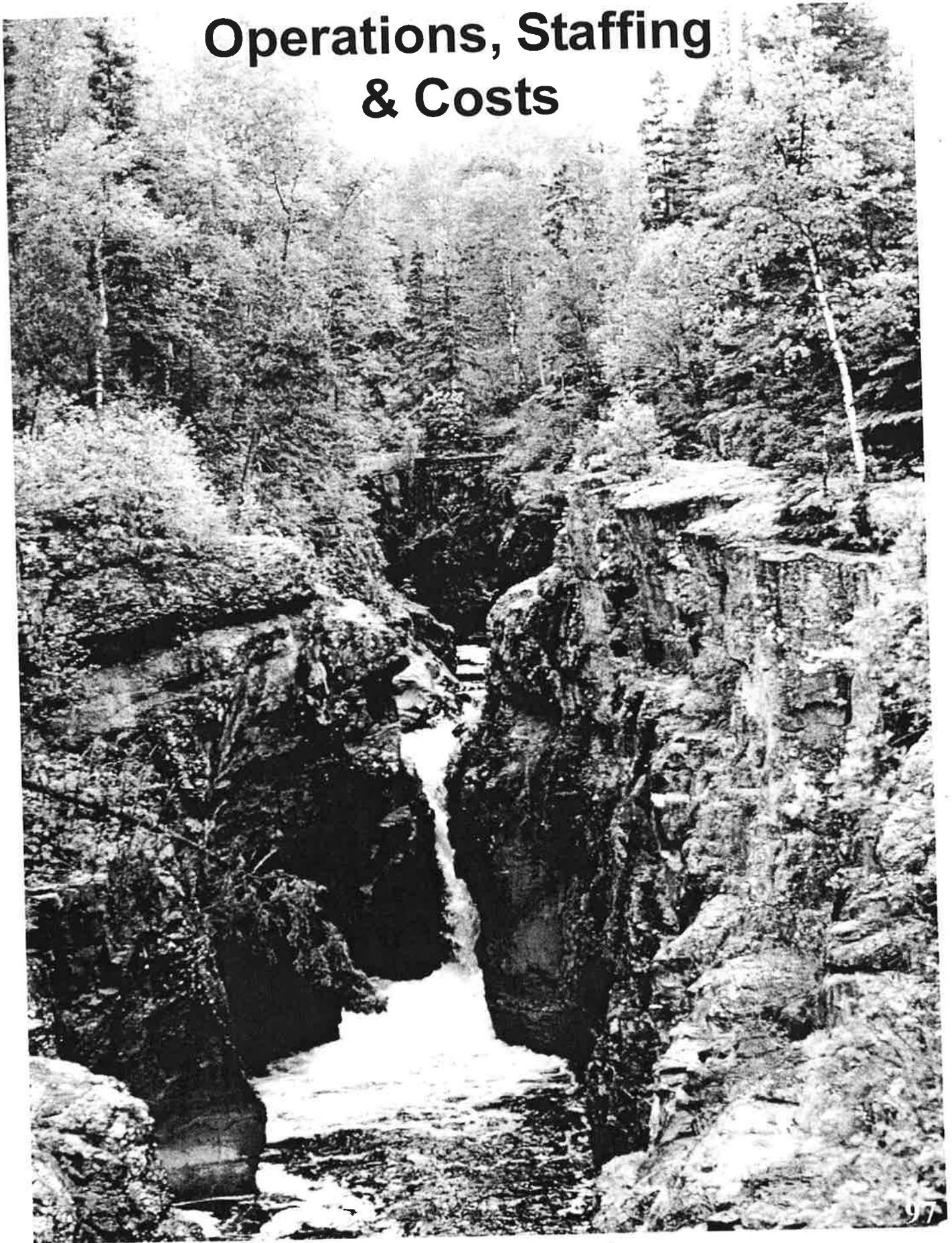
Submit rehabilitation requests for maintenance of park infrastructure as needed.

Future Building Concepts/Themes

The architectural theme of park buildings should reflect the style of the park office and campground shower building. The design should be modern and functional, but should include natural elements of stone and cedar siding.

Service area buildings should be built for functionality using steel siding and roofing and pole construction with less emphasis on architectural elements.

Operations, Staffing & Costs



Current Organizational Structure

Temperance River State Park has only 2 full-time year-round positions, the park manager and assistant park manager. The rest of the staff have only seasonal positions. Minnesota State Parks budget development process (Standards) identified funding for staff hours that are equivalent to 4.3 full time positions to operate Temperance River State Park year round. Due to limited budgets, only 3.7 Full Time Equivalents were actually funded in FY 98. \$30,905 was budgeted for supplies and expenses in FY 98.

The park manager and assistant park manger are authorized by the DNR to enforce rules and regulations within the park boundary. They call on other law enforcement agencies, particularly DNR Conservation Officers as necessary to assist with law enforcement within Temperance River State Park. DNR Conservation Officers now primarily help enforce fishing, hunting, and trail use rules and regulations.

Future Needs

There is a critical need to provide additional staffing to allow for the desired park visitor service, particularly during the busy spring and fall shoulder seasons. As new facilities are developed, and additional areas managed, additional staff hours will be needed. For instance, enforcement of park rules and regulations at Carlton Peak will require additional staff hours. State park staff hours will be identified through the Standards Budgeting Process, which is a system to distribute operation dollars equitably across the State Park System. Additional law enforcement officer time may also be needed as new laws are created and park visitation grows. In addition, consideration should be given to providing an Interpretive Specialist that would be shared for several parks along the North Shore in the future. (See Interpretive Plan section).

Park's Status Under Law



Temperance River State Park was established in 1957. This land had originally been purchased by MnDOT for highway right-of-way and for gravel mining. Cross River Wayside was established by the Minnesota State Legislature in 1961. The boundary included nearly three sections (1,880 acres) of USFS land, 80 acres of private land, and 600 acres of State School Trust Fund Land. In 1977, 40 acres of private land near Highway 61 were deleted from the statutory boundary at the landowners request.

1957 - Established Temperance River State Park and transferred 133 acres from the custodial control of Department of Highways (MnDOT) to Department of Conservation (DNR) in sections 29,31,& 32, T59N, R4W (Chapt. 421, Sec. 1 & 2).

1961 - Established Cross River State Wayside (2,640 acres) authorized acquisition of all of sections 25,26,35,&36, T59N, R5W.

1969 - Reorganized the laws designating state parks & waysides.

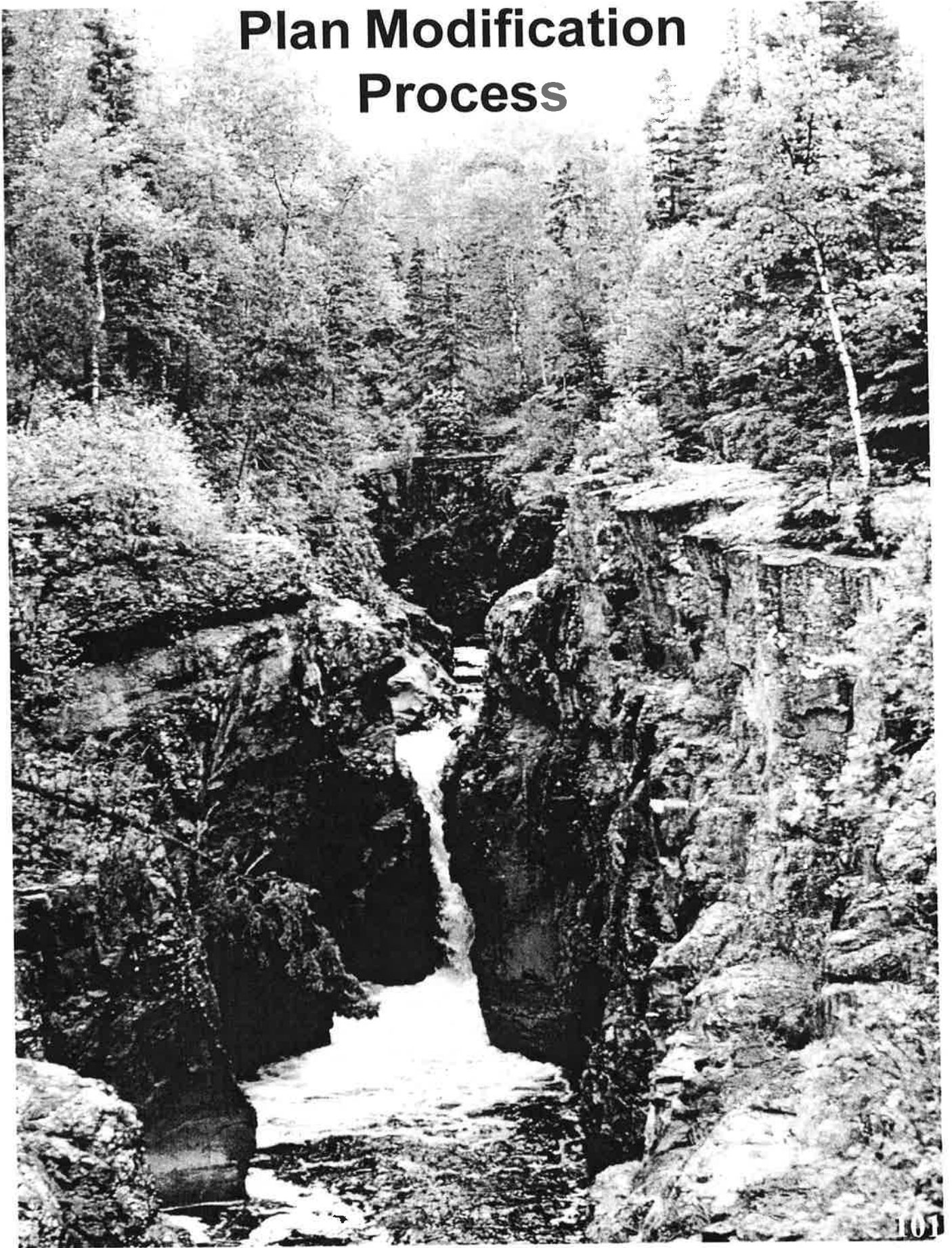
1977 - Deleted 40 acres in SE 1/4 SE 1/4 sec. 36, T59N, R5W from Cross River Wayside at the request of the landowners (Chapt. 431 Section 2, subd 6).

1984 - Expanded the Temperance River State Park boundary to include 86.45 acres of USFS land. One parcel in section 31 & one in sections 29 & 32, T59N, R4W (Chapt. 599, Sec 1, Subd 6).

1992 - Section 36, T59N, R5W, in Cross River State Wayside was transferred from Trust Fund land to state owned land.

1994 - Expanded the Temperance River State Park boundary to include 320 acres of land (referred to as Carlton Peak) to Temperance River State Park in section 20, T59N, R4W (Chapt. 448, Sec 1, subd 7).

Plan Modification Process



Plan Modification Process

State Park management plans document a partnership-based planning process and the recommended actions resulting from that process. These comprehensive plans recognize that all aspects of park management are interrelated, and that management recommendations should also be interrelated.

Over time, however, conditions change that affect some of the plan recommendations or, in extreme cases, an entire plan. Plans need to acknowledge changing conditions and be flexible enough to allow for modifications as needed.

For the purpose of this plan, we will differentiate between less controversial plan revisions and major plan amendments. Minor plan revisions can generally be made within the Division of Parks and Recreation. If a proposed change to a management plan meets any of the criteria below, it must follow the Plan Amendment Process. To maintain consistency among the plans and processes, all revisions and amendments should be coordinated through the Division of Parks and Recreation Planning Section. Requests for planning assistance should be directed to the Division of Parks and Recreation Planning Manager, Central Office.

Major Plan Amendments

Criteria for Major Plan Amendments

If a proposed change meets any of the following criteria, it must be approved through the management process below.

The proposed change:

1. alters the park mission, vision, goals, or specific management objectives outlined in the plan; or
2. is controversial among elected officials and boards, park user groups, the public, other DNR divisions or state agencies; or
3. directly affects other state agencies (e.g., Minnesota Historical Society).

Management Plan Amendment Process

1. Division of Parks and Recreation Initial Step: Review plan amendment at the park and regional level. Determine which stake holders potentially have a major concern and how those concerns should be addressed. If the major concerns are within the Division of Parks and Recreation, the issue should be resolved within the division. Review the proposed approach with central office managers.
2. If the proposed change issue involves DNR Divisions, the issue should be resolved by staff and approved by the Division Directors. This may require one or two area/regional integrated resource management team meetings. The Division Directors will determine whether the proposed change should go through the departmental review process (SIRS/Senior Manager).
3. If the proposed change issue involves other state agencies, the issue should be resolved by staff and approved by the appropriate Division Directors.

4. If the proposed change is potentially controversial among elected boards, park user groups, or the public, the park advisory committee should discuss the proposed change and attend an open house forum that is advertised in the local and regional area. Following the open house, the Division of Parks and Recreation Director will determine whether the proposed change should be reviewed by the department.
5. All plan amendments should be coordinated, documented and distributed by the Division of Parks planning staff.

Plan Revisions

If a plan change is recommended that does not meet the amendment criteria above and generally follows the intent of the park management plan (through mission, vision, goals and objectives), the Division of Parks and Recreation has the discretion to modify the plan without a major planning process.

Revisions related to physical development constraints and resource protection

Detailed engineering and design work may not allow the development to be completed exactly as it is outlined in the plan. A relatively minor modification, such as moving a proposed building site to accommodate various physical concerns, is not uncommon. Plans should outline a general direction and document the general "areas" for development rather than specific locations. For the most part, plans are conceptual, not detail-oriented. Prior to development, proposed development sites are examined for the presence of protected Minnesota Natural Heritage and Nongame Research Program elements and historical/archaeological artifacts. If any are found, the planned project may have to be revised to accommodate the protection of these resources.

Program Chapter Revisions

The resource management section and interpretive services chapter should be updated periodically as needed. Division of Parks and Recreation Resource Management and Interpretive staff will determine when an update is needed and coordinate the revision with the park planning section. Program chapters should be rewritten in a format consistent with the plan as originally approved by the DNR. To retain consistency, park planning staff should be involved in chapter revision review, editing and distribution.

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- ⁹ Minnesota Department of Natural Resources Stream Management Plan, Pete Ekelend, Area Fisheries Supervisor, 4/2/93 & Dennis Anderson, Regional Fisheries Manager, 4/15/93
- ¹⁰ Americans With Disabilities Act Accessibility Guidelines For Buildings And Facilities Including Transportation Requirements And Guidelines (ADAAG) Developed by the Architectural And Transportation Barriers Compliance Board and The Department of Transportation, and Distributed by the Department of the Interior Office For Equal Opportunity.
- ¹¹ Recommendations for Accessibility Guidelines: Recreational Facilities and Outdoor Developed Areas July 1994, developed for the US Architectural and Transportation Barriers Compliance Board.