



Minnesota Natural Resources
Department: Environmental
Assessment Files Regarding State
Parks

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ENVIRONMENTAL ASSESSMENT
TEMPERANCE RIVER STATE PARK

I. DESCRIPTION OF THE PROPOSED ACTION

- A. Purpose of the Action - Temperance River State Park was established by an act of the Minnesota State Legislature in 1957.

The development of lands within the recreation area's statutory boundary, by the Department of Natural Resources-Division of Parks and Recreation, will provide additional outdoor recreational opportunities for the use and enjoyment of the Citizens of the State of Minnesota.

The State of Minnesota - Department of Natural Resources proposes that the Federal Bureau of Outdoor Recreation, as Administrator of the Land and Water Conservation Fund (LAWCON), participate in this action.

- B. Location and Magnitude of the Project - Temperance River State Park is geographically located in Cook County approximately 70 miles northeast of Duluth, MN on Minnesota's North Shore. (MAP 1+2)

The present authorized land area for the recreation area is 133 acres. All land is acquired within the statutory boundaries. (MAP 3)

It is proposed ^{to renovate} that ~~rehabilitation of~~ the water distribution system, repair the campground sewage system and electrical work and landscaping and trails ^{renovation} ~~rehabilitation~~ will be completed with the assistance of the Land and Water Conservation Fund. ~~The current estimated cost of these projects is \$46,000.~~

C. Timing of the Project - State funds are available for completion of the project. These projects will be completed by private contractors or the state park staff. It is expected that all projects will be completed by July, 1979.

D. Future Development - An inventory of the natural resources of the park is scheduled for completion within the next six years. This inventory will be part of a long range comprehensive management plan for the park. Future development in the park will not proceed until this long range comprehensive management plan is completed.

Existing preliminary plans concerning possible future developments are old and general in nature. However, these plans do consider such possible developments as a picnic grounds, ski and hiking trails and a service area.


E. Recreational Needs to be Served by the Proposal - Temperance River State Park is located within the Arrowhead Economic Development Region, a seven county area in the Northeastern corner of Minnesota. The 1974 Minnesota State Comprehensive Outdoor Recreation Plan identified existing recreational facilities within the region and make the following projections concerning their use:

	<u>Existing</u>	<u>Projected</u>		
	<u>1978</u>	<u>1975</u>	<u>1980</u>	<u>1990</u>
Picnic Tables	2,185	-1,321	-1,470	-1,762
Camping Sites	7,191	- 790	-2,487	-5,527
Hiking Trails (mi.)	760	+ 438		
Snowmobile Trails (mi.)	1,632	- 274		

Temperance River State Park is located in one of the highest used recreation areas of the state. The proximity of this park to Duluth and the existing freeway system for the Twin Cities makes

this region and park accessible to a large population center. The anticipated future increase in levels of mobility and leisure time of this population, and the projected population increases in this region and adjacent regions are all contributors to these large projected facility deficits.

Park visitor attendance during the past ten years shows very significant increases in total attendance for this period.



<u>Year</u>	<u>Tourist Camp</u>	<u>Day Visitors</u>	<u>Total Visitors</u>
1966			
1970			
1972			
1974			
1975			
1976			

It seems most likely that such attendance will continue to increase in the future. Because of such expected increased use of the projected facility deficits, completion of the project is necessary to meet expected increased recreational use within the park and to help offset projected facility deficits within the region.

II. DESCRIPTION OF THE ENVIRONMENT

- A. Topography - The park consists of lands adjacent to Lake Superior on Minnesota's North Shore. It is located in the region known as the North Shore Highland which is made up of the Keeweeawan lava flows and intrusions. The park contains many steep slopes and rock outcroppings. It is divided in half by Highway 61. The major feature of the park is the Temperance River and its deep gorge without a bar at the mouth. (MAP 5)

B. SOILS Soils within this park vary quite widely. They range from rock outcrops to Amasa gravelly fine sandy loams with 2 to 12% slope. Udorthents with 18 to 45% slopes are located near the river gorge. Barto-Mesaba soils (a complex gravelly silt loam) and Amasa gravelly fine sandy loam makes up the rest of the parks soil types.

C. CLIMATE Mean January temperatures average ° of (maximum) and ° of (minimum). Total annual precipitation averages 28", with % of this total occurring as inches of snowfall.

D. WATER Major surficial water resources within the park consists of the Temperance River. The park is located on Lake Superior.

E. MINERALS There is one mineral deposit of economic worth in the park; it is gravel. The gravel pit has been permanently closed.

F. FLORA The original vegetation of the area consists of an aspen-birch complex that contains conifers which includes white and red pine, spruce and balsam. Today the park consists of aspen-birch.

G. FAUNA Lists of the many species of fauna which may utilize the various park habitats either as permanent or seasonal residents, during periods of migration, or only as occasional visitants, would be quite lengthy.

A list of mammals would include such species as the white-tailed deer, moose, timber wolf, black bear, snowshoe rabbit, red squirrels, porcupine, bobcat, lynx, coyote, beaver, otter, fisher, and mink. Also included here would be several species of insectivores and rodent type or mammals.

The avian list includes a wide variety of species. A few noteworthy species are the Hooded and American Merganser, Old Squaw, common loon, ruffed grouse, herring gull, woodcock and several species of avian predators and a variety of the smaller passeriforms species.

Species belonging to three major faunal classes (fishes, amphibians, and reptiles) include rainbow trout, brown trout and lake trout.

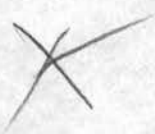
Amphibians and reptiles include Northern Red-Bellied Snake, Eastern Garter Snake, American Toad and Eastern Gray Treefrog.

The timber wolf is on the rare & endangered species list.

H B. Historical and Archaeological Resources - Resource data in this area is lacking. A survey should be performed to find out if any sites are located in the park.

I C. Transportation & Utilities - Vehicular access into the area and into the park and its facilities is easily obtained via the existing primary and secondary highway systems. The major access route is U.S. Highway #61. Secondary access is provided through county roads and U.S. Highway #1. Access to the main facilities is from a main park road which intersects with U.S. Highway #61.

J D. Socio-Economic Factors



E. Land Use - The project site is in an area being used for recreation purposes.

F. Existing Recreation Facilities - Developed facilities currently available within the park include ^acampground and hiking trails.

III. ENVIRONMENTAL IMPACT OF THE PROPOSED PROJECT

A. Impact on the Physical and Biological Environment - Some disruption of flora and fauna resources may occur in the immediate development site. However, due to the highly localized nature of the development project, no significant impacts upon flora and fauna resources will occur.

B. Impact on the Historical and Archaeological Resources - Data is lacking in this area. A site survey is needed to assess the impact.

C. Impact on Transportation and Utilities - Neither the major roadways to the area or the secondary roads providing access to the park will be impacted by the proposal.

D. Impact on Socio-Economic Factors - Since all of the land on or near the project site has already been acquired, no loss from the local tax revenue, or from agricultural production will occur. Beneficial impacts on the local economy will be realized. This will result from the local workers being hired to build the projects, *and additional money spent locally by more park users*

E. Impact on Land Use - Since the development site is in an area being used for recreational purposes, the project proposal is compatible with present usage.

IV. MITIGATING MEASURES INCLUDED IN THE PROPOSED ACTION

- A. After the completion of the proposed development, reseeding and landscaping will be employed to replace disrupted flora resources.

V. ANY ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED SHOULD THE PROPOSAL BE IMPLEMENTED.

- A. All of the proposal will unavoidably affect a minimal amount of flora and fauna resources. However, this will be confined to the highly localized area of the development itself.

VI. RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

- A. Short-term uses of the environment as they relate to the maintenance and enhancement of long-term productivity are not considered in terms of years. Trade offs are necessary in order to gain certain benefits.

<u>GAINS</u>	<u>LOSSES</u>
1. A better water distribution system.	1. Disruption of a localized area of flora & fauna.
2. A better sewage treatment system.	2. Expenditure of approximately \$16,000 of public funds.
3. Improved & safer trails.	

VII. ANY IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES WHICH WOULD BE INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED.

- A. Implementation of the proposal will result in a more permanent conversion from present recreational land use to a structure used to enhance surrounding recreational lands. The manpower, materials and funds necessary to implement the proposed action will also be irretrievably committed.

VIII. ALTERNATIVES TO THE PROPOSED ACTION

Major alternatives considered are: (A) no action & (B) project of a larger scope.

- A. No Action - Would continue the deterioration of the present facilities. It would cause loss of flora in the localized area.
- B. Project of a Larger Scale - A project of a larger scale is not needed at this time.

FOX RIVER BOND

25% COTTON

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