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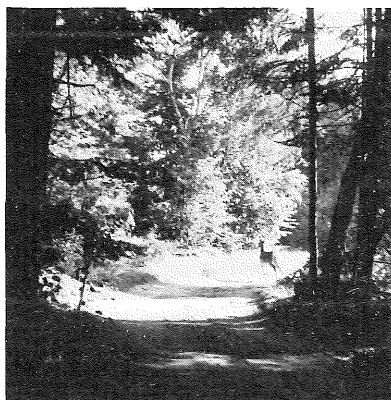
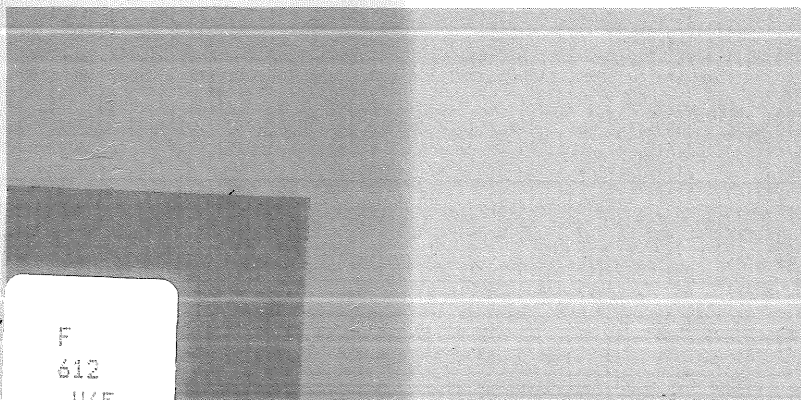
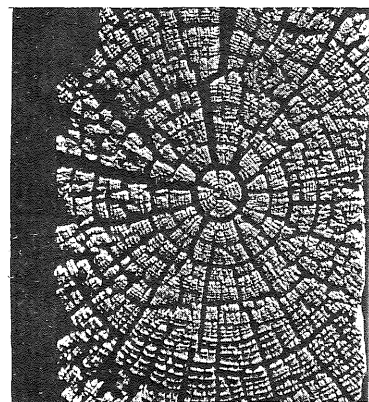


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UPPER RED LAKE
STATE PARK



feasibility study

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UPPER RED LAKE STATE PARK FEASIBILITY STUDY

Summary of Findings and Recommendations

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PURPOSE

A feasibility study for the proposed Red Lake State Park was recommended by the Minnesota Outdoor Recreation Resources Commission and authorized in the 1965 Omnibus Natural Resources Bill. It is the wish of the Outdoor Recreation Commission and the State Legislators that an impartial technical study be made before additional state parks are authorized.

The staff engaged in this study has considerable experience in park and recreational planning in Northern Minnesota and includes professionals with training and skills in landscape architecture, geography, economics, architecture and engineering.

The entire project was conducted as a joint study between the consultants and the Division of State Parks, Minnesota Department of Conservation.

The findings and recommendations contained in this booklet represent but a summary of a larger technical report prepared for the State of Minnesota.

GENERAL CONCLUSION

The proposed Upper Red Lake State Park contains recreation resource values that could make it one of the more outstanding parks in Minnesota.

The consultants unhesitatingly recommend the Upper Red Lake site for a state park because it: 1) exemplifies the natural landscape, native vegetation and wildlife of a major physiographic division of the state, 2) provides a logical place for interpreting the story of Minnesota homesteading, and 3) contains exceptional opportunities for active recreation and other park uses.

The more than 3½ miles of white sand beach and shallow lake bottom could provide water-oriented recreation unequalled in any existing Minnesota State Park. The site meets all criteria for a park of state-wide significance and provides several bonuses as well. The site combines an unique landscape created by the ice-age, an interesting heritage and primitive sections providing the natural habitat for most species of Minnesota wildlife.

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THE REGIONAL LANDSCAPE

The proposed state park is located within the Red River Lowland Region of northern Minnesota. The topography of this area is largely the result of glacial Lake Agassiz, a former 5,000 square mile meltwater lake created by the final recession of glaciers nearly 10,000 years ago. Abandoned shorelines of Lake Agassiz form the boundaries of the Red River Lowland which encompasses the lake-washed plain extending across northern Beltrami and Koochiching Counties.

Only a puddle in comparison with the wide expanse once covered by the glacial lake, Red Lake is one of the last remaining remnants of the ice-age within this region. Still it is the largest fresh water lake entirely within any state in the nation.

RESOURCE VALUES

Expressions of the former glacial lake are clearly found in the landscape of the proposed park. A series of sand ridges (recessional beaches of Lake Agassiz) are found adjacent to the existing lake shore in a general northeast-southwest trend. The present access road follows one of these old beach ridges almost to the mouth of Dumas Creek. The other two run parallel to the access road between it and the lake shore. Relief is pronounced within the area of the recessional beaches with the crest of the ridges being ten to fifteen feet higher than the surrounding topography. The land between these ridges is usually wet or semi-wet with scattered potholes and sloughs attractive to wood ducks.

The most distinctive feature of the proposed state park is the magnificent beach of Upper Red Lake. The entire shoreline consists of a well-defined sand beach. White sand stretches at least 20 feet from the tree line to the water under normal conditions. The lake bottom is very shallow in this area with a gradual drop, providing excellent swimming and sunbathing.

Along one sector of the beach, designated "Magnetic Beach" in the development plan, the sands are stained a reddish, "iron ore" color. This coloration exists to a shallow depth of about one-half inch, and is due to wave action depositing minute magnetite ore particles on the beach from a submerged iron formation off-shore. This creates a rather attractive and unique feature along the beach with the irregular wavy belts of red sand overlying the contrasting white sands for a distance of about 600 feet. Depending on the intensity and direction of the wave action, these red sands will shift up and down the beach periodically. When the red sands are exposed to a magnet, small needle-like grains of magnetite ore can easily be extracted.



This most unusual feature, found in no other state park in Minnesota, is quite similar to the garnet sands found on the Pacific Coast of Olympic National Park in the state of Washington. It is believed that this red coloration is the reason the early French explorers named the lake "Lac Rouge".

Other physical characteristics such as vegetation and wildlife resources lend themselves quite readily to a wilderness-type setting within the proposed state park. Dense stands of spruce, cedar and tamarack abound throughout the site. The present access road, which could be improved to serve as the main road within the park, is one of the most scenic forest drives in the region.

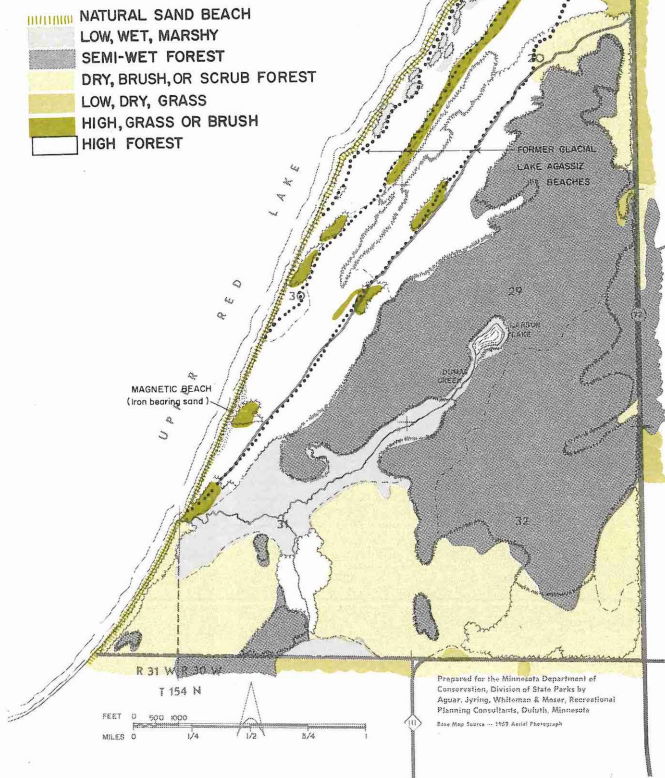
Along some sections of the road the overhanging spruce are so dense that they create the illusion of driving through a tunnel with the sun barely penetrating the forest cover. Major deciduous species such as aspen, birch, and mixed hardwoods are found on the higher ground, especially along the beach where they provide a natural wind shelter from strong off-lake winds.

Among natural features found within the boundaries of the proposed park, and often overlooked in other parks, are wetland areas. A long, wide expanse of marshland extends from the mouth of Dumas Creek northeast to Larson Lake. This area offers unusual wildlife and botanical attractions. Such waterfowl as puddle ducks, mallards, teal and wood ducks can be found nesting throughout the marsh. Occasionally moose may also be found feeding on the aquatic vegetation, especially around Larson Lake. In the spring and early summer the marsh is a panorama of color when the Indian Pitcher plants and various Minnesota orchids are in bloom. Here would be provided an opportunity for visitors to see and photograph Minnesota's official state flower — the Showy White and Pink Lady Slipper. Many natives of our state have never seen this rare wild flower in bloom.

The proposed park is also quite abundant with wildlife resources ranging from deer, bear, and moose, to mink and beaver. White tail deer are the most common, especially in the thick cedar and spruce stands where they find ample feed and protection from predators. Lynx, bobcat, brush and timber wolves, and fox are also occasional visitors to the site. Blue heron, and smaller fur bearers such as mink, beaver, and fisher are found around the marsh, with ruffed grouse, in fair numbers, occupying the dryer woodland. During spring and fall migrations, whistling swan usually stop to rest and feed on the lake.

Land Characteristics

feasibility study for a proposed UPPER RED LAKE STATE PARK Beltrami County, Minnesota



HISTORICAL SKETCH

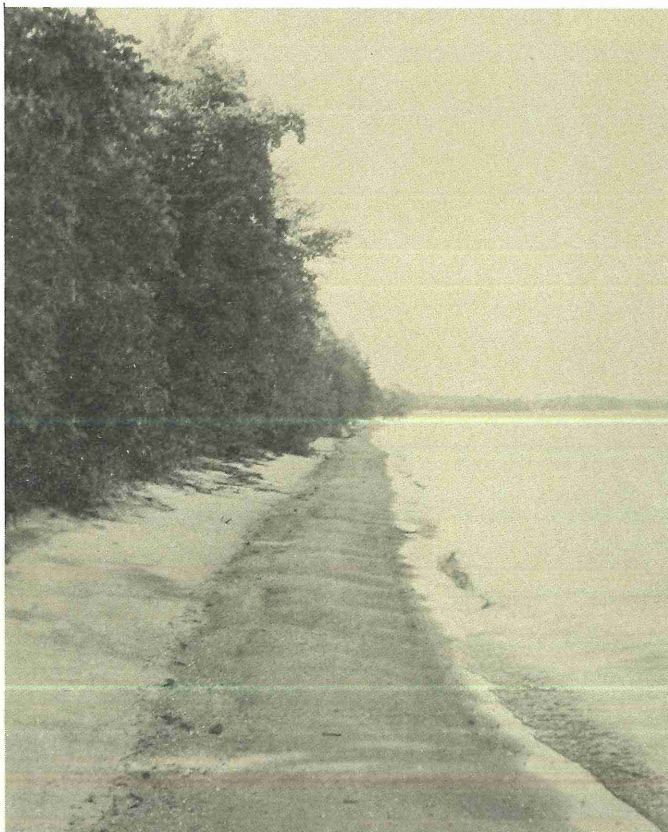
Perhaps one of the most significant features of the proposed park is its rich historical background. This area, and much of the surrounding region, was the last Indian land in Minnesota offered for homesteading. At one time a small settlement (Dumas) was situated at the mouth of Dumas Creek, boasting a store, post office, and school. Approximately 25 pioneer families at one time carved homesteads out of the immediate wilderness.

From 1900 to 1917, these immigrant families seeking land of their own, traveled by way of the beach of Upper Red Lake, to settle and farm this land. Most of these pioneers found the land inhospitable. The soil was poor, and the dense forest almost too much to contend with. By the time of World War I most of these hardy, courageous people left the area in search of better land to work and raise their families upon. Old timers in the area recall that taking a homestead on Upper Red Lake was often considered a wager with the government that the settler would not starve to death during the years required to "prove up" the land.

Today the settlement of Dumas (later renamed Jed) is gone. Only a concrete sidewalk remains around the former school. A resort is now located where the post office and store were situated. All homesteaders are gone, and only a few overgrown clearings mark the sites where log cabins and barns had been erected. Nowhere within the state park system is this significant page of Minnesota history told. This story should be told. The courage and struggles of the determined pioneers of Dumas should be preserved by the creation of this park. This "last frontier" era of Minnesota has long disappeared from our countryside, but it should not be forgotten.

The region surrounding the park abounds in the early history of the Sioux and Chippewa as well as prehistoric Indians. Burial mounds, settlements, portages and former campgrounds are very much in evidence by the pieces of pottery and artifacts found near Waskish and along the Tamarack River. A British fur trading post was located near the mouth of the Tamarack River about 1785.

Within the nearby Red Lake Indian Reservation there are a number of historic and prehistoric areas of interest. The Narrows, separating Upper Red Lake from Lower Red Lake, was the site of prehistoric settlement that has been traced back as far as the end of the ice-age.

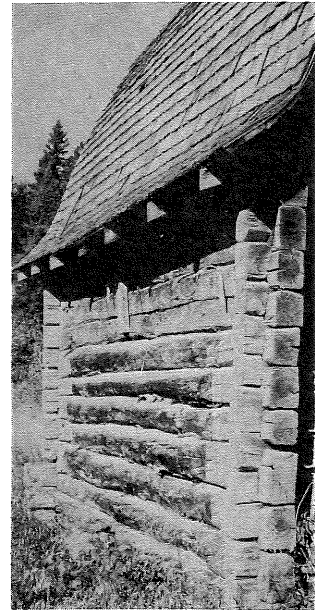
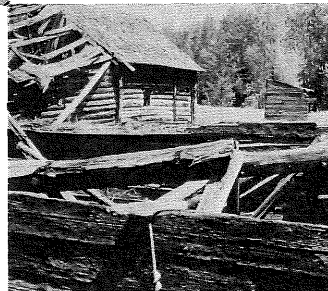




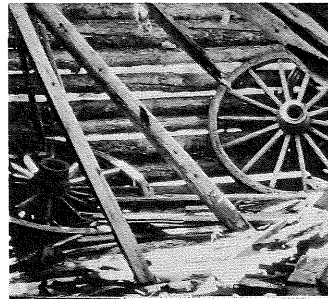
HOMESTEAD CABINS — MINNESOTA'S DISAPPEARING HERITAGE

Original log homestead cabins and barns built by immigrants from the rural wooded regions of North Europe still dot the landscape of Minnesota, but their days are numbered.

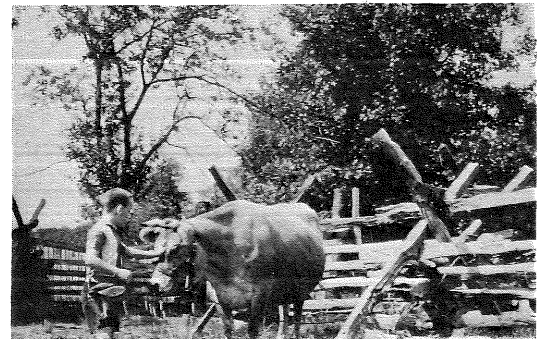
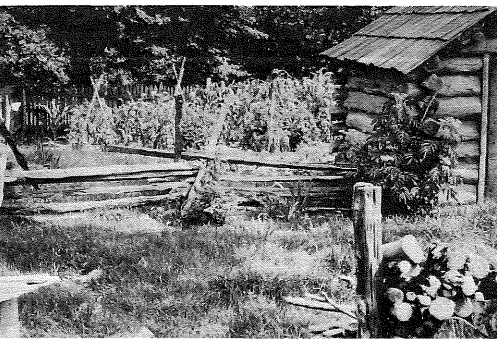
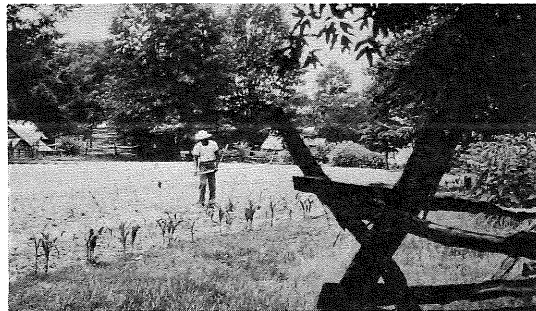
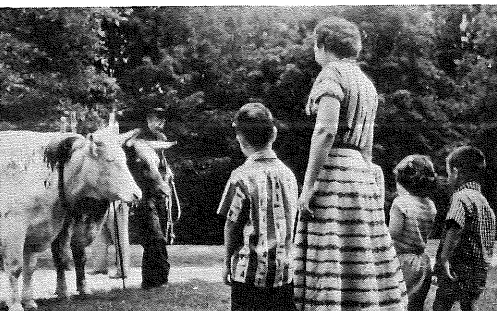
Once the roof collapses and the interior is exposed to the elements, it does not take long for total destruction of the log exterior and its contents. An architectural style and the skill of a forgotten pioneer will pass from the Minnesota scene when this hewn log barn with hand split shake roof falls into ruins.

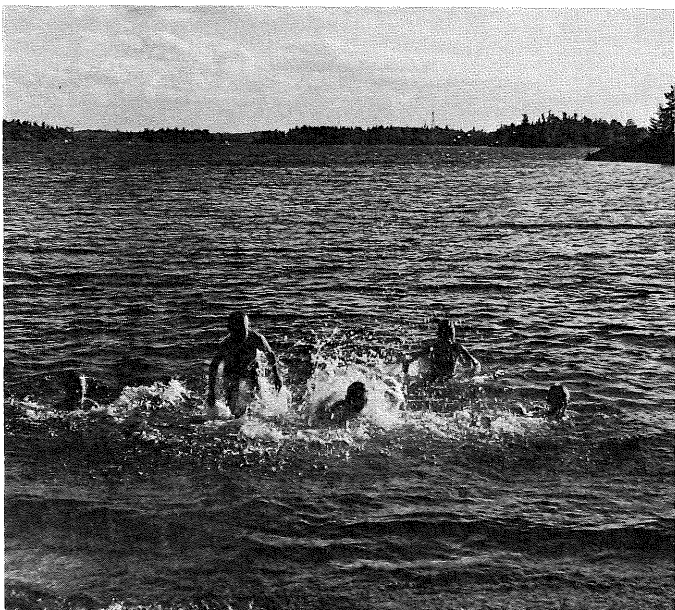


Log building styles are like fingerprints: no two are quite alike. Over the entire state only a handful of log structures are being preserved and are open to the public. Nowhere has the story of Minnesota pioneers been adequately told, to help us appreciate the lost art of the homesteaders.



NEW SALEM STATE PARK, Illinois, is shown in the scenes below. This most popular of all Illinois state parks is off the main traffic routes but still attracts about 2,000,000 visitors per year. We protect endangered wildlife species in parks and game refuges. This state park illustrates how we can protect, preserve and reconstruct our historical treasures.





RECREATIONAL POTENTIAL

Exceptional recreational opportunity for a wide variety of leisure time activities exists within the proposed state park. Water-oriented activities are especially favorable for this site. More than three miles of natural white sand beach and shallow lake bottom will provide excellent swimming and sun bathing conditions without the crowding so common to such areas. The lake lends itself quite well to boating, water skiing and fishing. Some of the best walleye fishing in northern Minnesota is found on Upper Red Lake as evidenced by the hundreds of sportsmen who descend on the Waskish area every spring for the opening of fishing season.



An almost completely undisturbed primitive environment such as found within this site is fast becoming difficult to find in this age of urban expansion. The forest setting found along the roads and trails within the proposed park provide a feeling of penetrating a dense wilderness which is unparalleled except for the Boundary Waters Canoe Area of northeastern Minnesota. Here is an opportunity for a visitor to observe a vast array of wildlife in their natural habitat, as well as walk through a forest showing development ranging from young seedlings to mature trees 60-70 years old.

PRELIMINARY DEVELOPMENT PLAN

The preliminary site plan is designed to make maximum utilization of the natural environment. The plan calls for all facilities to be designed of rustic materials to preserve the pioneer or "last frontier" character of the site. Suggested development has been classified by a system recommended by the Federal Bureau of Outdoor Recreation (B.O.R.).

Facilities proposed within the *General Outdoor Recreation Area* would include a small scale marina located within the mouth of Dumas Creek to provide a natural harbor and protection from strong off-lake winds. Included within the boat launching facility would be a fish cleaning house, sanitation facilities, and adequate parking.

Immediately adjoining the marina, within the day-use area, the plan recommends a picnic ground with 50 sites, including tables, cooking grills, sanitation facilities, and an informal playground area. This area would be served by a 100 car parking lot for the picnic grounds as well as a proposed museum-visitor center.

"Magnetic Beach" with its unusual iron-bearing sands, provides an outstanding natural swimming area. Accessible from both the day-use area and the campgrounds, the plan recommends construction of a bath house-cabana structure complete with toilet facilities.

A 500 foot wide strip of wooded buffer, separating the day-use sector from the campgrounds, is suggested to prevent an overflow of day users into the campgrounds, as well as to help retain the wooded wilderness-like flavor of the campsites.

The plan calls for a maximum of three campgrounds with 60 sites each. However, the first-stage development of the park would include only one campground with later campgrounds built as the need for them was demonstrated. The campground area is located so that prevailing winds will pass over and through the site to help reduce insect problems.






That sector of the park designated as an *Outstanding Natural Area* would include an "Ice-Age" exhibit centering on the former beaches of glacial Lake Agassiz, highlighting the forces which molded the local landscape. The exhibit would include maps, diagrams, and perhaps models depicting the advances and retreat of the epicontinental glaciers, as well as a demonstration of the wide expanse once covered by the glacial lake. This exhibit would introduce the visitor to a series of trails traversing the recessional beach-ridges of the glacial lake. The entire exhibit should be designed to enlighten and educate the visitor with the geologic past and the ice-age, which many geologists and geomorphologists believe we are still experiencing.

A *Primitive Area* is recommended with a series of nature and hiking trails which would provide an opportunity for visitors to view wildlife in their natural habitat. A trail, leading from the main access road into Larson Lake at the northeast end of the marsh, would take the hiker through various stages of forest development to the wetland around the lake. A raised overlook, or observation platform, is suggested to allow birdwatching and photography of waterfowl, and perhaps moose in their natural environs. Another trail, branching off the Larson Lake Trail, to the northeast, would wind through





Preliminary Development Site Plan

feasibility study for a proposed UPPER RED LAKE STATE PARK Beltrami County, Minnesota

B.O.R. CLASSIFICATION

-  II GENERAL OUTDOOR RECREATION AREA
-  III NATURAL ENVIRONMENT AREA
-  IV OUTSTANDING NATURAL AREA
-  V PRIMITIVE AREA
-  VI HISTORIC SITE

PROPOSED FACILITIES

-  PARKING
-  CAMPSITES (Rustic)
-  HIKING TRAILS
-  VANTAGE POINTS FOR VIEW OF SPECIAL QUALITIES OF THE LANDSCAPE

II GENERAL OUTDOOR RECREATION AREA

VI HISTORIC SITE

IV OUTSTANDING NATURAL AREA

V PRIMITIVE AREA

III NATURAL ENVIRONMENT AREA

CAMPGROUND &
SANITARY FACILITIES
3 SECTIONS ULTIMATE

MAGNETIC BEACH
SWIMMING AREA

DAY USE AREA
PICNIC GROUNDS,
GAMES
BOAT LAUNCHING
& MARINA

CANOEING

"DUMAS" (JED)
MUSEUM &
VISITOR CENTER

PRIMITIVE
CAMPSITES

PARK HDQTRS.
&
SERVICE AREA

VI HISTORIC SITE 9
HOMESTEAD EXHIBIT

ICE AGE
EXHIBIT

PICNIC
AREA

NATURE
TRAILS

BEACHES OF
GLACIAL LAKE
AGASSIZ

20

SCENIC FOREST DRIVE

FLY IN
CAMPSITES

CONTACT STATION

PRIVATE COTTAGES

WASKISH
AIRPORT

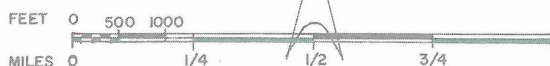
LARSON
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Prepared for the Minnesota Department of
Conservation, Division of State Parks by
Aguar, Jyring, Whiteman & Moser, Recreational
Planning Consultants, Duluth, Minnesota

Base Map Source — 1959 Aerial Photograph

a well-developed stand of multi-age spruce and other mixed species. Along with the informational signs, the trail would allow the hiker an opportunity to view forest development from the sapling stage to mature conifers. This would be a natural area to spot deer, brush wolves and other small game animals.

Within the southwest portion of the Primitive Area, the plan calls for a rustic campground of about ten campsites. Nestled in a grove of mature elm trees, this campground would be located at the end of a three-quarter mile canoe trip along Dumas Creek, starting from the marina. The campground would also be accessible by a hiking trail which would start at the marina and wind through the thick cedar stands found in that area. Only the most essential facilities would be provided in the campground in an effort to retain the primitive setting.

Outside the Primitive Area, but related to it, the plan suggests a rather unique innovation for the modern-day camper. A "Fly-in" campground, rustic in nature, would be provided for visitors who might fly into the area, landing at the Waskish Airport, which is immediately adjacent to the northern boundary of the park. With facilities for landing and tying down their aircraft, the "fly-in" visitor would have only a short walk to his campsite which would provide minimum facilities such as water and sanitation. This would provide an interesting attraction to those who might stop over in flight to the Canadian border for hunting and fishing, as well as an attraction to those campers and sportsmen who stop on Red Lake for fishing or vacation.

Two *Historic Sites* are also recommended by the plan. A homestead exhibit, developed on the site of one of the former homesteads within the park might utilize original log buildings still standing in the area that would be moved in to provide an authentic setting. This is where the story of Minnesota homesteading would be told as the visitor viewed the tools and implements used and the structures built by these hardy people. A team of oxen and a small garden with typical crops could help complete the scene of 50-60 years ago. Perhaps on special occasions old settlers of the area would again meet at Dumas to swap stories and demonstrate their skills with a broad axe, hand loom or other pioneer tools.

The other historical site would be a museum-visitor center located on the site of Dumas. Here could be told the story of the old settlement as well as the other historic points of interest around the park, especially concerning prehistoric Indian culture, fur trading, logging and the ill fated drainage ditch program.

A natural buffer area, designated as a *Natural Environment Area*, is provided along the boundaries of the park, and along the edges of the scenic forest drive which would serve as the major access road. Providing a buffer from the nearby highway and roads which parallel the southern and eastern boundaries, this land would be left in its natural state. It would also serve as a refuge for wildlife.

It is again emphasized that all roads, trails and architectural elements to be designed into the park should be carefully detailed so as to blend with nature and augment the natural beauty of the site. Special skill will be needed in the preparation of working drawings and

final development plans to blend man's work with the surroundings in an attempt to preserve the natural atmosphere of this attractive area. The land needed for human occupancy within the park is purposely quite small with the surrounding environment devoted to common enjoyment and left in as wild a condition as possible. "Landscaping" in the usual sense is not needed and under no circumstances should unusual or exotic plant materials be introduced. Where additional screening or buffers are needed, native plant materials should be used.

Cost estimates based on the preliminary development plan amount to \$995,353.67, including proposed land acquisition costs.

PROPOSED DEVELOPMENT STAGING

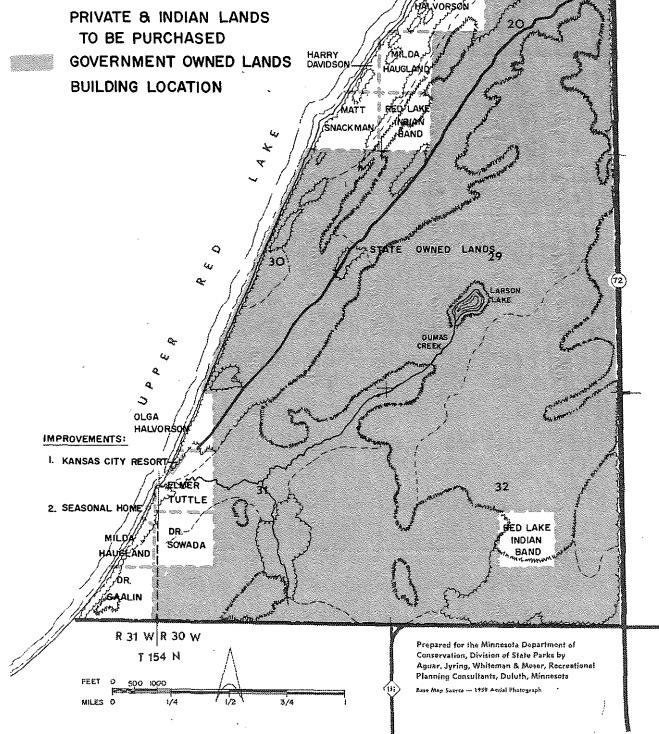
Since the availability of approximately one million dollars for development costs will not likely be possible within the immediate future, consideration should be given to possible staging so that the park can be made useable at an early date. To begin the acquisition and development of the park, the following is recommended:

1. *Land Acquisition.* The 372.4 acres of private land should be acquired as quickly as possible and arrangements made to purchase or exchange the 80 acres owned by the Red Lake Indian Band.
2. *Roads and Trails.* The existing access road should be upgraded for two-way travel and parking lots provided along with a minimum trail system to enable visitors to enjoy the natural areas.
3. *Facilities.* Development of one 60 unit campground, a picnic area and construction of utilities and minimum structures to serve them should be among the first stage items.
4. *Administration and Maintenance Equipment.* The construction of the small entrance station, at least one residence and the acquisition of some maintenance equipment will be necessary before the park can be put into operation.
5. *Homestead Exhibit.* As a relatively inexpensive item and important to the site's unique background, the historical exhibit should be started while authentic log buildings and other pioneer artifacts are still available.
6. *Future Development.* As money is authorized for the development of the park, the other items would be added. Among future staging items would be the following.
 - a. "Ice-Age" Exhibit.
 - b. Maintenance Building.
 - c. Marina.
 - d. Museum and Visitor Center.



Land Ownership

feasibility study for a proposed UPPER RED LAKE STATE PARK Beltrami County, Minnesota



RECREATION DEMAND, BENEFITS AND REVENUE

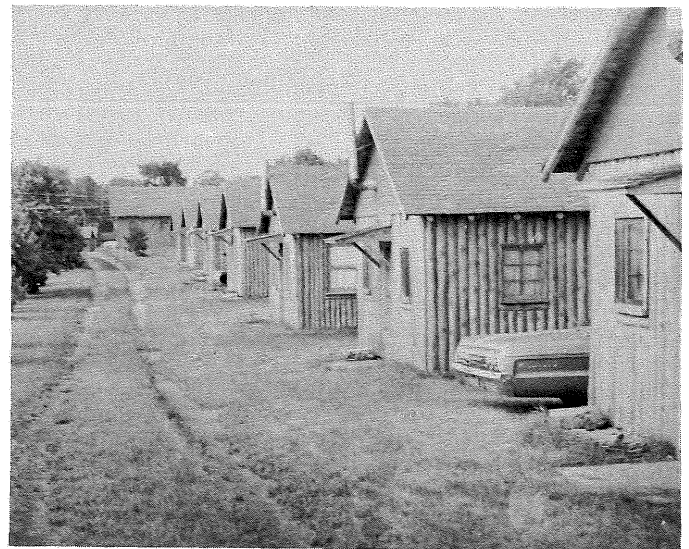
The following is a summary of an economic study prepared for the proposed Upper Red Lake State Park.

1. Attendance in Minnesota state parks will probably increase from less than four million man-days in 1966 to about six million man-days in 1980, roughly a 50% increase.
2. Attendance will increase in cycles rather than steadily from year to year.
3. Population in Minnesota and the Upper Midwest is expected to increase one-third between 1960 and 1980.
4. Personal consumption expenditures per person per year increased from \$1430 in 1950 to \$1809 in 1964, and will probably continue to increase at the same rate to 1980.
5. Tourists in northern Minnesota appear to have one to two weeks available for vacation and should have no difficulty in reaching and using the proposed Upper Red Lake State Park.
6. If the proposed state park is established and facilities completed in the next ten years, the man-day attendance per year should average about 54,754.
7. The present daily expenditure of tourists in the Red Lake area is about \$8.63 per person.
8. The total tourist expenditures for 54,754 man-days at \$8.63 is \$472,527. This would be the major economic value of the proposed park.
9. The total direct revenue to the state from camp-site revenues and sales would be about \$20,400 per year.

LAND AVAILABILITY

Of the 2,928.6 acres proposed for the state park, 2,476.2 acres are presently state owned or county tax forfeit properties. This includes more than one mile of state owned beach and lake frontage property. Private lands recommended for acquisition total only 452.4 acres, including 80 acres of land belonging to the Red Lake Indian Band which should be purchased or exchanged.

This land has been appraised at a fair market value of \$225,344 with an estimated annual tax loss of only \$381.08. Considering the aesthetic qualities and excellent wilderness environment with more than three miles of beautiful sand beach, the cost of acquiring the privately owned lands is most reasonable. This land would also be most essential in properly developing a park on this site. An annual tax loss of less than \$400 would be offset many times over every year from projected revenue which the park would receive from visitors.



KANSAS CITY RESORT and one private seasonal cabin are the only improved properties within the proposed Upper Red Lake State Park.

ACKNOWLEDGEMENTS

Many individuals, organizations and agencies have contributed to this report. The planning staff is particularly indebted to U. W. Hella, Director, John Martin and Milton Krona of the Division of State Parks; William Callies and John Parker of the Division of Game and Fish, and to Roger Anderson and Hugo Kornell of the Division of Forestry, Minnesota Department of Conservation.

To the staff of the Minnesota Historical Society, special thanks should go to Russell Fridley, Director and Timothy Fiske, Archeologist.

In the local communities, we wish to thank Leonard Eggen, Archie Bowen, Elmer Tuttle, Mrs. Clara Quale, Mrs. Bertha Halvorson, Mr. and Mrs. F. E. Winger, and Mayor Ramer Hoyum of Kelliher.

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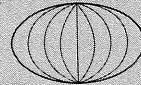
Upper Red Lake State Park

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**PREPARED FOR THE STATE OF MINNESOTA
DEPARTMENT OF CONSERVATION
BY**



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October, 1966

