MINNESOTA HISTORICAL SOCIETY

Minnesota Natural Resources Department: Environmental Assessment Files Regarding State Parks

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ITASCA STATE PARK

JACK PINE REJUVENATION PLAN

DISCUSSION DRAFT

November, 1980

****

Paul Rundell

REVIEW BY
12/12/80
FK

% of area now + future occupied by JP

The Jackpine Restoration Project arose from concern over the deterioration of this signifcant plant community in Itasca State Park. Moritz (1976) mentioned this decline along with his concerns for the other pine stands. Since that time the Jackpine stands have rapidly declined due to their extreme age, insect invasion and some disease. The rapid loss of these stands can be expected and, in fact, are occurring now. One stand was removed in the spring of 1980 to prevent these problems from spreading into nearby stands. I have documented this change in composition and this data was presented in the spring of 1980. After considerable discussion it was the concensus of the group that a comprehensive plan for the rejuvenation of Jackpine stands should be developed.

Seven major areas of Jackpine were identified in the park covering over 800 acres. These areas will be concentrated on in this project as they are areas where Jackpine can be brought back most readily.

Due to the large size of some of the areas, we felt that park objectives would be better met by breaking them up into smaller units. This will be done by cutting large stands over a period of years. This, also, reduces risk to these stands by preventing large monoculture single age stands. Smaller areas are also easier to maintain and are better accepted by the public.

A total 38 treatment sites were identified averaging 21 acres, varying from 5 to 55 acres. These contain from 124 to 1055 cords, but average 437 cords of Jackpine and some untabulated timber.

mention - site class
expected rotation age

eliminate the word "cut" wherever possible
Better to have map - showing location -
and put table in appendix

Table I

CUTTING ORDER

Area Number	Cutting Block	Township	Range	Section	Size Acres	Volume Cords	Cutting Year
4	1	143	35	18	38	380	1981.S
2	2	144	36	35	17	595	1981.F
4	9a	143	35	18	25	625	1982.S
2	4a	143	35	18	8	280	1982.F
3	3a	143	35	7	8	224	1982.Su
5	14	142	35	6	35	700	1982.F
1	1	143	36	4	16	300	1983.S
2	12	144	36	35	5	175	1983.S
1	11	143	36	4	34	204	1983.S
3	10	143	35	7	13	650	1983.Su
7	22a	143	36	34	14	350	1983.F
6	21a	143	36	36	55	1045	1984.S
4	16a	143	35	19	21	693	1984.Su
4	5	143	35	18	25	625	1984.F
5	19b	143	35	31	40	800	
7	9a	142	36	4	28	140	
3	3c	143	35	6	6	228	
2	4b	144	36	35	9	315	
4	6b	143	35	19	16	368	
5	11g	143	35	32	12	372	
6	18	143	36	36	42	798	
7	9b	142	36	4	24	120	
2	13b	144	36	35	10	350	
7	22b	143	36	34	30	390	Fall

Table I - continued

Area Number	Cutting Block	Township	Range	Section	Size Acres	Volume Cords	Cutting Year
3	3b	143	35	6	7	252	
2	4c	144	36	35	7	245	
4	9b	143	35	18	35	375	
5	19a	143	35	31	30	600	
6	21b	143	36	36	47	893	
4	6a	143	35	19	20	460	
2	13a	144	36	35	17	595	
5	11a	143	35	32	4	124	
6	8	143	36	36	47	893	
4	16b	143	35	19	10	300	
6	21d	143	36	36	22	418	
4	20	143	35	18	6	180	
4	17	143	35	18	12	240	
6	21c	143	36	36	15	285	
Total					810	16,587	
Average					213	437	

Unit boundaries were designed to follow type lines wherever possible. Other unit divisions were drawn along natural breaks to prevent straight lines from occurring presenting a more natural appearance after treatment.

Time of harvest is critical for good natural regeneration but due to location (high use area, protection area) and other reasons some units must be cut at other times. In these areas, hand planting may be required. Features looked for in the field included:

1. Areas of rare plants or plant communities
2. Areas containing wildlife that could be disturbed or dislocated
3. Areas where succession has proceeded too far
4. Areas where codominant species would be harmed

Areas were examined in the field to identify areas to be excluded. None were found though several areas were located that will require special handling due to nesting rapters. Sites will be checked prior to cutting and cut time can be adjusted to prevent their disturbance. Areas associated with known archeological sites will be cut in the winter to prevent disturbance.

TREATMENT RESTRICTIONS

Jackpine are shade-intolerant, therefore, the canopy must be removed when renewing these stands. Some treatment will be necessary to suppress competing vegetation and to ~~for~~ eliminate ~~elimination of~~ the duff ~~Duff~~ layer allowing for successful germination and growth.

Several areas will be partial cut ~~cuts~~ to eliminate disease and insect reservoirs preventing harm to adjoining stands. These can be best done in winter and are scheduled for that time.

Cutting regulations and restrictions are designed and shall be imposed as needed to reach project goals. They will be applied entirely or in part and will be specified in the bid notice and cutting contract.

RULES AND REGULATIONS

1. Clear-cut all timber as indicated in the appraisal report

2. Fell trees away from swamps, lakes and wet areas

3. Utilize all timber to 4 inch top diameter or less. } omit

4. Cutting of non-commercial trees may be required.

5. Full tree skidding will be required and tops must be piled for burning.

6. No slash is to be placed in wet areas.

7. Slash shall be removed from base of reserved trees.

8. Some areas may be excluded or delayed after cutting has begun.

9. Haul roads will be placed where marked and will follow natural contours where possible.

10. SNAGS

SILVICULTURAL TREATMENTS

The purpose of these treatments is to present the proper condition for restoring vigorous Jackpine stands to the park. The future stands should include:

1. Small even-aged stands of Jackpine

2. Snall mixed species stands dominated by Jackpine.

3. Small co-dominant conifer stands but Jackpine should be the primary species returned in this project.

The District Forester will be in charge of the field work including:

1. Marking treatment unit boundaries and excluded areas.

2. Cruising each unit and setting up each ~~timber sale~~ stand conversion project.

3. Act as fire boss as needed on each treatment area.

The Resource Management Coordinator will assist when needed and as time allows. In some areas further treatment may be required to reach management goals. These may include herbicide brush suppression. Where girdling cannot be done, stump treatment with herbicides may be done to prevent suckering and sprouting of unwanted vegetation. Tordon RTU, a new product omit

stab - chemical to be used will have Park's prior approval

~~on the market would be an effective method of treating freshly cut~~ stumps. ~~It comes with a small hand~~ applicator and is ready to use. ~~Cost is low and the spray~~ is colored making it easy to identify treated ~~stumps.~~

Aerial and ground herbicide spray methods have proven effective in the establishment and maintenance of conifer stands. These methods will be considered where needed.

Natural seeding can work well given the proper weather and soil conditions if a seed source is available. To insure adequate seed, cones will be collected in each treatment area. After seed is extracted each area will be seeded.

SNAG MANAGEMENT

Sixty species of birds and mammals are known to use snags for nest or den sites. Some excavate their own holes, others use existing cavities. For this reason a part of this plan deals with snag management. Perching and roosting sites are another important factor in snag management.

Several factors must be addressed including spacing, size, condition and grouping of snags. Some existing snags should be saved in each treatment area. Also to be considered are potential future snags as some will be needed later in the development of these stands because most are of short duration after they reach the soft snag stage.

Treatment by girdling can be an effective method of assuring future snags and this has a second potential - that of preventing suckering of hardwoods in the treatment areas. This will also present clumped snags which are important to some bird species.

For the above reasons we will use girdling when appropriate and whenever possible in the aspen areas. Old soft snags will also be left if they do not interfer with other goals.

IMPACT

These treatments will have a minor effect on water and air quality. In a 1973 experimental 200 acre clearance west of Squaw Lake in the Park showed no significatn effect on stream flow or water quality following treatment. All treatment areas in this project are much smaller, further reducing the risks to water quality.

Wildlife will be affected both negatively or positively. Deer, grouse and hares will probably increase due to more available food and increased diversity. Some birds will also increase ~~dur~~ due to increased habitat but woodpeckers and other tree gleaners will probably decrease due to loss of part of their habitat. Snag management should reduce these problems and all animals will benefit eventually due to greater distribution of age classes in the forest.

8/10/82

Itasca Wilderness Sanctuary SNA

Lands described in Clearwater County as:

The East Half ($E\frac{1}{2}$) of the Southeast Quarter ($SE\frac{1}{4}$) of the Southeast Quarter ($SE\frac{1}{4}$) in Section 4; the Southwest Quarter ($SW\frac{1}{4}$) of the Southwest Quarter ($SW\frac{1}{4}$) in Section 5; all of those lands in the Southeast Quarter ($SE\frac{1}{4}$) of Section 8 lying parallel to and 50 feet east of Park Drive; all of those lands in the Northeast Quarter ($NE\frac{1}{4}$) of Section 17 lying parallel to and 50 feet east of Park Drive; all of those lands in Section 9 lying parallel to 50 feet east of Park Drive; all of the lands in Section 15 lying parallel to and 50 feet north and east of Park Drive and west of Lake Itasca (West Arm); all of the lands in Section 10 lying west of Lake Itasca (West Arm); and all of the lands in the Northwest Quarter ($NW\frac{1}{4}$) of Section 11 lying west of Lake Itasca; all in Township 143 North, of Range 36 West.

The lands to be designated contain an undisturbed plant community maintaining itself under prevailing natural conditions. Specifically the site contains a large virgin stand of Pinus resinosa (red pine). The site also contains habitat supporting the following rare and restricted plan and animal species: Malaxis paludosa (bog adder's mouth); Botrychium matricariacfolium (matricary grape-fern); Halilaeetus leucocephalus (bald eagle); and Accipiter gentilis (goshawk).

This area should be designated as a Public Use Unit. No restrictions other than those contained in NR 300-303 are necessary.

ENVIRONMENTAL ASSESSMENT

ITASCA STATE PARK

I. DESCRIPTION OF THE PROPOSED ACTION

A. Purpose of the Action - Itasca State Park was created by an act of the Minnesota State Legislature in 1891. Encompassing the headwaters basin for the source of the Mississippi River, Itasca was the first major state park established in Minnesota. In 1965 the park was designated a Registered Natural Landmark by the U.S. Department of the Interior, National Park Service, under the provisions of the Historic Sites Act of August 21, 1935.

The Minnesota Department of Natural Resources intends to provide additional recreational opportunities at Itasca State Park through the acquisition and development of private lands within the park's authorized boundaries.

The Bureau of Outdoor Recreation, as the federal administering agency of the Land and Water Conservation Fund, proposes to participate with the State of Minnesota in the acquisition of the land at Itasca.

B. Location and Magnitude of the Project - Itasca State Park is located in northwestern Minnesota (Clearwater, Hubbard and Becker Counties), approximately 28 miles north of Park Rapids, about 200 miles northwest of the Twin Cities. (See maps in Appendix.)

The total authorized land area of the state park is 32,820 acres, of which 1,357 acres was added by the 1976 legislature. Approximately 91.90 percent, 30,163 acres, is currently publicly owned. It is proposed that the remaining 2,657 acres be acquired with the assistance of the Land and Water Conservation Fund. The current estimated cost for acquiring the land (25 parcels) and relocating the 3 owners is $400,000, plus relocation costs.

C. Timing of the Project - Within the Minnesota State Park System there are approximately 53,000 acres of land in private ownership. The Division of Parks and Recreation embarked upon a major acquisition program with the objective of acquiring most of these lands during the six year period of 1976-1982.

Appropriations are made available on a biennial basis and it is estimated that more than $43 million will be needed to accomplish this objective. During the current biennium (1976-77) $1.5 million is available to initiate this program and acquire approximately 12,100 acres.

Although the Division of Parks and Recreation establishes its priorities for acquisition, completion of these priorities is dependent upon locating willing sellers.

If the private parcels of land within Itasca State Park were all acquired today, 3 relocations of owners, 4 relocations of commercial businesses and 1 relocation of a farm operation would be required. Two seasonal relocations are needed. However, immediate, total acquisition of private lands is impossible.

First, the Division does not have the power of eminent domain and must therefore rely on willing sellers. Second, the estimated cost of $400,000 for the project would be prohibitive within current appropriation limitations and other statewide acquisition priorities.

All parcels within the park are acquisitions of top priority for this biennium. None of these parcels are presently optioned by the State.

However, six landowners have been contacted and are willing sellers. The other 19 landowners will be contacted in the near future to see if they are willing sellers desiring an appraisal of their property.

D. Facilities to be Developed - There are no plans for developing additional facilities within the state park at this time. The existing facilities are not sufficient to cover present needs. County and private facilities will be developed to accommodate the overflow.

E. Recreation Needs to be Served by the Proposal - Calendar year attendance data sheets for Itasca State Park indicate a steady growth in total park visitors since 1961. Attendance data from 1961-1975 is summarized in Table 1.

Clearwater and Hubbard counties are part of the five-county Planning Region 2 of the Minnesota State Comprehensive Outdoor Recreation Plan (SCORP). Becker County is part of the nine-county Planning Region 4. This plan reveals a need for more land-and water-based recreational opportunities. SCORP estimates that the following deficiencies or abundances of facilities will prevail in 1975, 1980 and 1990:

	Region 2			Region 4		
	1975	1980	1990	1975	1980	1990
Picnic Tables	+299	+195	+ 96	-340	-443	-653
Campsites	+608	+ 51	-926	-174	-1140	-2767
Hiking Trails	+160			+ 1		
Snowmobile Trails	+178			-551		
Swimming (thousand sq. ft.)	+54.4	51.5	+35.8	+151.4	+147.9	+141.2

Other deficiencies exist within these regions but will have to be met by county or local governments rather than state or federal governments. SCORP recommends that most deficiencies be accommodated on local lands. However, the aforementioned deficiencies may be reduced somewhat through

TABLE 1

CALENDAR YEAR ATTENDANCE DATA - ITASCA

Year	Youth Camps	Tourist Camps	Day Visitors	Total Visitors	% overnight Campers
61	3,988	55,911	692,112	764,365	7.84
62	2,480	70,685	869,100	954,400	7.67
63	2,332	93,937	1,042,508	1,151,628	8.36
64	1,742	30,180	748,650	794,475	4.02
65	1,417	74,633	545,198	632,268	12.18
66	1,516	105,010	603,815	720,158	12.04
67	2,036	65,046	746,201	822,441	8.23
68	1,860	68,800	808,600	888,020	7.96
69	2,288	68,978	923,185	1,005,419	7.08
70	2,641	76,899	953,892	1,044,306	7.61
71	2,091	80,550	1,049,523	1,144,224	7.22
72	2,754	84,227	1,061,017	1,158,956	7.50
73	3,864	92,091	1,048,236	1,155,165	8.30
74	3,910	88,529	1,039,574	1,142,031	8.09
75	2,475	88,047	546,771	648,472	13.96

the proposed acquisition and subsequent development of state park lands.

Priorities for action in regions 2 and 4, cited by SCORP include:

- Provide at least minimal public access on all lakes suitable for water activities, wildlife or fish management.
- Preserve shore areas needed for public recreation by accelerating acquisition of high quality shorelands.
- Provide non-motorized trails where need can be demonstrated.
- Investigate the prehistoric man interpretive potentials in the regions, and expand the historical interpretation program of Itasca State Park.
- Expand campsites in Region 4 to offset existing and projected deficiencies.

II. DESCRIPTION OF THE ENVIRONMENT

A. Topography - Itasca State Park exhibits a typical glacial landscape with hummocky end moraines, gently rolling ground moraine and relatively flat outwash plains. The park is dissected by north-south oriented valleys and contains numerous lakes and bog filled depressions. Two major ice movements during the Wisconsin glacial age are responsible for the many surface features of the park. This area is dotted with such geologic features as knobs, kettles and eskers. The washing action of glacial meltwaters has left behind water-washed moranic materials. The absence of finer sand and silt is a result of this washing action.

The Itasca moraine, running east-west, stretches across the area in an irregular belt 5 to 15 miles broad. The complex system of deep, narrow valleys or drainageways was formed by subglacial streams. Lake Itasca itself lies in two northward converging drainageways that account for its "Y" shape.

Geographically, Itasca State Park is noted for the headwaters of the Mississippi River, which officially begins at the northernmost end of Lake Itasca at an elevation of 1,475 feet above sea level. The maximum topographic relief of the park is about 300 feet. Many isolated hills within the park boundary rise to elevations of 1,500 and 1,600 feet above sea level. A point in the south-central part of the park, High Point, reaches an elevation of 1,700 feet.

B. Soils - The initial landforming process as well as subsequent geologic influences, generated glacially transported parent materials in the park area. Intensive soil survey information for Itasca State Park is not yet available. However, in 1963 Minnesota's soils were differentiated into relatively broad associations having generally similar diagnostic properties. Soil associations of the park are designated Nebish-Rockwood and Menahga-Marquette.

The Marquette series is light-colored and of medium to coarse texture. It is derived from calcareous parent materials including relatively high proportions of sand and gravel. These soils are apparently derived from glacial outwash overlying reworked till. Soil columns are typically well to somewhat excessively drained providing a relatively droughty medium for supported vegetation. They are usually associated with the rougher topographic phases of the terrain.

Representing the more droughty soil conditions, the less frequently occurring Menahga series is a tan-colored, noncalcareous, sandy soil on level to gently rolling topography. This soil is a weakly developed soil occurring on deep, well-sorted and excessively drained outwash sand of fine to medium texture. Menahga soils seldom support species other than the more drought enduring ones such as jack pine.

The Nebish and Beltrami series are markedly similar in structure. The former is characterized by somewhat better internal drainage than is the latter. Both are principally residual soils derived from strongly calcareous loam or clay loam glacial till. These soils occur on level to rolling topography. The associated vegetation is typically dominated by northern hardwood species.

The Rockwood soil series is a heavy soil. It has a slightly coarser texture than do the Nebish and Beltrami series, ranging from sandy loam to loam. The series is characterized by a more effective internal drainage and lower moisture retention capacity.

C. Minerals - A systematic survey of the mineral potential of the park has not been conducted. Therefore, there are no known mineral resources of economic significance within Itasca. According to the rock type found in the area, those characteristic of the Greenstone belt, there is a good possibility that copper, zinc, iron, nickel, lead, gold and silver could be found in significant quantities.

D. Water Resources - The two most significant bodies of water in Itasca State Park are the Mississippi River and Lake Itasca. The Mississippi River has its principal source in Lake Itasca. As the river leaves the lake it is about ten feet wide and 10 to 12 inches deep. It may be safely crossed by wading or by stepping from stone to stone. Here, where a log marker stands to indicate where the river starts, is one of the most photographed spots in Minnesota.

Lake Itasca, with 12 miles of shoreline is the largest body of water in the park. It is fed by many small streams. The lake's outstanding feature, like other park lakes, is that the timbered shorelines today are practically the same as they were before the white man came. There are no visible scars of civilization along the shorelines.

Itasca is dotted with numerous smaller lakes and dissected by many streams. Fishing is permitted on these bodies of water and is known to be very good. LaSalle Creek supplies the only trout fishing the park offers but the catch is usually good. Lake Itasca is known for its large bass and bluegills and its large number of crappies. Walleyes and northerns are plentiful in the area's lakes.

The ground water within the park is only fairly reliable to supply an adequate supply of water for present and future recreational use. A successful well is a matter of chance due to the inconsistencies of the glacial drift which is general throughout the park. A good supply of water can usually be found where blue clay overlays gravel or shale. Small pockets of this formation are sporadically spaced throughout the park. The water table in this area is quite deep. Wells must be drilled at least 100 feet before reaching an adequate supply of water.

E. Water Quality - The quality of the water in Lake Itasca has been qualified as Class A, Fisheries and Recreation. This water permits the propagation and maintenance of warm or cold water fishes and is suitable for boating and other forms of aquatic recreation of all kinds, including bathing. Elk Lake is suitable for boating and other forms of aquatic recreation. Its water is such that it permits propagation and maintenance of rough fish. It can be assumed that other lakes in the area are of good water quality because of very little agricultural runoff and because they are at the head of the watershed.

F. Flora - The park area is under the influence of three major vegetation associations - the prairie, the boreal and the hardwoods from the south. Since it is in a general transition zone, Itasca State Park vegetation exhibits considerable variation. The pattern of natural vegetation is strongly influenced by physiographic and soil conditions. This results in a mosaic of forest types.

While the park forest is commonly considered "virgin", only about one-fourth of the total area contains full or partial stocking of old-growth pine. The rest of the area was either dominated by other species when the park was created or the pine was logged and/or frequently burned and did not regenerate.

Mature and overmature red pine and eastern white pine have persisted in the park because of their size, longevity and resistance to fire.

Red pine occurs in relatively pure stands, is mixed with white pine, or, on coarser-textured mineral soils, is mixed with jack pine. White pine is usually present in an open overstory of scattered trees in hardwood stands, on finer-textured soils. Balsam fir and white spruce occur on sites having mesic moisture conditions, mainly along the numerous lake margins. Quaking aspen, paper birch and bigtooth aspen are widespread on the burned areas. Other tree species found in the park are listed in the appendix.

Floristic elements from adjacent regional vegetation formations intermingle extensively. Species characteristic of the more boreal environments to the north and northeast, species characteristic of the deciduous flora located southeasterly, and ones characteristic of the prairie-forest to the west are represented within the park boundaries.

The great variety of flowering plants found in the park add much color to the area. The list, in the appendix, is quite extensive.

G. Fauna - The variation of vegetation and surficial hydrology within Itasca State Park provides many good habitats for a variety of wildlife species. A list of species types observeable in the park is found in the appendix.

Game populations in the Itasca basin have fluctuated a great deal during the past couple hundred years. In the mid 1700's there seemed to be enough game to attract the Indians. Moose were scarce in the early 1900's and beaver became so scarce that by 1901 they were considered extinct. Bear were abundant around Douglas Lodge as late as 1907.

Attempts to increase the numbers of several species of wildlife have been made throughout the last hundred years. Four beaver were brought into the park in 1901 and by 1918 there was an excess of beaver. The beaver population has fluctuated ever since, depending on conservation practices used to control their numbers, depletion of food supply, beaver sites in poor locations and extreme weather conditions. The future of the beaver will depend upon the animal's ability to adapt to a new food supply or the ability of the foresters to provide sufficient aspen sprouts, preferred winter food, along the waterways.

In 1913, fourteen elk were brought to the park in an attempt by the Forest Service to reintroduce elk into Minnesota. This was an expensive, not too successful project. Many animals died when they failed to adapt to the environment. When finally released from their pasture many of the animals migrated west and never returned. A few elk remained behind and are still present in northwestern Minnesota.

In earlier days wolves were a problem in the park. They killed deer, bothered man and were a nuisance to the elk. Between 1927 and 1929 three trappers killed most of the wolves. This was unfortunate since the wolves would have been helpful in controlling the deer population.

The deer population is one of great flucuation. By 1935 the deer herd was too large for the park area. The pine forest was in danger of extermination because the deer were killing all pine reproduction. Food became scarce and deer were starving. Many deer were trapped and removed to other state parks in an attempt to reduce the herd. Deer moved into the park from the surrounding forest land faster than they were being removed. The only thing that proved successful in reducing the deer population was an open hunting season within the park.

Hunting is still allowed in Itasca to control the deer. Pine reproduction has been safely reestablished. By the time the deer herd increases the forest should be back to a condition that would prevent the over-population that occurred in the past.

Porcupine and great blue heron are also problem animals. They destroy trees. The porcupine can kill a stand of young white pine in one winter of gnawing bark. Heron's nest in the tops of the highest trees. Within a few year's after a nest has been built the bird's excrement will have killed the tree. The bird moves on to another tree and builds another nest, beginning the process all over again.

During the park's history it has lost some forms of wildlife and gained others. The moose and bear are practically gone but the raccoon and the grey squirrel have become quite common.

Past experience in the park has shown that proper management of the area's wildlife is just as important as the proper management of timber resources. A checks and balance system is needed to assure that the natural conditions of the park remain in tact.

H. Climate and Air Quality - Itasca State Park is near the center of the North American land mass with a strong continental climate. The mean maximum temperature in January is 16°F and in July it is 82°F. The mean minimum temperature in January is -8°F and in July it is 54°F. Precipitation occurs during all seasons. About 16 inches of the normal annual 25.2 inches of precipitation occurs in the summer. Snowfall approximates 5 inches of precipitation. A 10 to 30 day drought period may occur during a growing season.

Winter weather is dominated by relatively severe cyclonic activity. A strong polar influence comes from the northwesterly winds which are characteristic in winter. By midsummer, Minnesota's predominate air mass movement is from the southwest; warm, moist air from the Gulf of Mexico.

Like most of the state, the extreme seasonal variations of climate at Itasca State Park provide opportunities for year-round outdoor recreational activities. Hiking, swimming, boating, fishing, etc. are only a few of the sports available during the warmer months. The area, with its thick snow cover in the winter, is great for snowshoeing, skiing, and snowmobiling.

I. Air Quality - No specific air quality for the park is available. Possible sources of industrial pollution which could have an adverse effect on the air quality are Bemidji and Detroit Lakes. These cities are far enough away from the park so that they would have a minimal effect on the area. Auto emissions would be the only local source of air pollution.

J. Historical and Archaeological Resources - Itasca is of extreme historical significance both to the people of the state and to the people of the entire nation. The mighty Mississippi River that has played a very important role in the settlement of this country begins its journey southward within the park.

The site of the headwaters of the Mississippi is part of the Itasca State Park Historic District. Other sites within the district are the Bison Site, Wegman Cabin, Chambers Creek Site, Itasca Park Site, Garrison Point, Hill Point, Schoolcraft Island, Tamarack Point and Douglas Lodge. Nine archaeological sites are known to exist within the park boundaries. As of May 1974 five of these had been excavated.

The first travelers into the Itasca State Park region arrived at least 8,000 years ago. They were Indian migrant hunters pursueing wild animals for their living needs. These early people ambushed bison, deer and moose at watering sites. Evidence of this activity was discovered in 1937. The excavated site is now known as the Itasca Bison Site and was added to the list of sites on the National Register of Historic Places on May 7, 1973.

The next tangible evidence, so far discovered, of early people in the Itasca region is the Indian mounds in the woods to the right of the Headwaters. These people, only 500 years ago, were of the Woodland pattern, considerably advanced beyond their wandering archaic predecessors.

Early in the 18th century, the Chippewa tribes became predominant in the Itasca area with the established settlement at Rice Lake, twelve miles northwest of Itasca and at Ponsford, fifteen miles southwest of Itasca.

The first white men to visit Lake Itasca were probably fur traders, but they left no record of their travels. The first white man known to have visited Itasca was William Morrison in 1803-04. Between 1811 and 1812 Morrison was again in that region. An old cellar on the bank of the Mississippi, six miles down the river from Itasca Lake, is understood to be the site of the house, where the fur traders, in Morrison's times, turned westward from the river to traverse the country to the North Red River. Many other well-known explorers such as Zebulon Pike, Beltrami, Cass and Nicollet visited the area.

The importances of each site in the historic district are briefly outlined below.

Schoolcraft Island:

In 1832 Henry R. Schoolcraft and a party of tourists reached Itasca Lake, near Mary Creek. They camped on Schoolcraft Island and then went down the Mississippi in canoes to Cass Lake.

Chambers Creek Site:

Chambers Creek was discovered by Julius Chambers in 1872. In 1881 Reverand J.A. Gilfillan and party held religious services at the creek. The Glazier fake was iniated at this same place. Glazier was a professional adventurer who pushed fraudulent statements that he was the true discoverer of the Mississippi's source. This controversy lasted over ten years.

Garrison Point:

Mr. O.E. Garrison traversed the region from Hernando de Soto Lake to Elk Lake and Garrison Point.

Hill Point:

This site was named after Alfred J. Hill, a local archaeologist who was hired to do a detailed survey of the area. He made the first proposal to make Itasca into a wilderness park.

Wegmann Cabin:

Theodore Wegmann built a log cabin and later a log store at this location. He and his wife supplied meals and lodging to travelers and tourists. In time he got a franchise for a post office and advertised the place as the Itasca Townsite. Wegmann spent 25 years as a game warden in the area.

Douglas Lodge:

Douglas Lodge is a state house that was built in 1904 and was named after Attorney General Douglas. Near the lodge are other sites of historical significance. North of the Lodge is Preacher's Grove where the members of a preacher's convention camped. Across the road are Indian Mounds and the Wegmann Cabin. Nearby is a small cemetery that is the resting place for a select few early settlers. Finally, to display all the natural and historical items of the park, there is a museum.

Itasca State Park was added to the National Register of Historic Places on May 7, 1973. The Minnesota Historical Preservation Officer has reviewed the area and made comments on the effects of the project proposal on these sites. His letter can be found in the appendix. There are no known sites of historical significance on lands to be acquired.

J. Transportation and Utilities - Itasca State Park is served by U.S. Highway #71 from the east; State Highways #92 from the north, #200 from the west and #113 to the south; and County State Aid Highway #39 from the south. The average annual daily traffic volumes on these roads is only about 500 vehicles.

County State Aid Parkway joins with the park circulation system as it runs through the park from the south entrance to the north entrance. This parkway was improved the summer of 1976 and is adequate to carry the park traffic. Coming into the northeast corner of the park are a township road and a county road. These routes presently serve a resort which lies within the park boundaries. As soon as the State buys out the resort these roads, approximately one mile total distance, will be closed.

All other roads within the park boundaries are park roads. They provide access to various points of interest and all park facilities. Three official accesses to this inner circulation system exist; one off of State Highway #200 and two off of U.S. Highway #71. The north entrance, off of Highway #200 will be enlarged and improved upon as soon as acquisition of lands needed has been completed. It will be remodeled to look more like a park entrance.

All roads in the area are adequate to serve present and anticipated future needs.

There is no service by air or rail to the park vicinity. However, bus service is provided to most nearby towns.

The utilities servicing the use areas of the park are adequate for present needs. There are six wells in the park that are reliable enough to serve the whole park. Sewage disposal is through a holding pond system. This pond services the north end of the park with the capability of carrying the Douglas Lodge area. At present the lodge has its own filtration plant but there are plans to tie it into the other system via lift stations.

Phones and electricity are abundant throughout the park but their distribution lines do not detract from the natural or aesthetic qualities of the park since the lines are put underground as they enter the park.

K. Socio-Economic Factors - The Minnesota State Planning Agency's population projections shown below indicate a steady growth for Becker and Hubbard Counties and for both regions, through the year 2000. A slight drop in population is expected in Clearwater County.

	Hubbard County	Becker County	Clearwater County	Region 2	Region 4
1970	10,600	24,400	8,000	54,600	185,400
1975	11,800	25,200	8,500	58,500	191,600
1980	12,400	25,600	8,300	60,800	195,600
1985	13,300	26,700	8,500	64,200	202,300
1990	14,200	27,600	8,400	66,900	206,800
1995	15,400	28,300	8,400	70,100	210,800
2000	16,900	28,600	8,300	72,800	212,900

The following employment and income data was found in "Minnesota Socio-Economic Characteristics," Minnesota State Planning Agency 1972.

Aggregate Average Family Income

Region 2	$ 7,599
Region 4	$ 8,681
Becker County	$ 7,721
Clearwater County	$ 7,149
Hubbard County	$ 7,025
State	$11,097

Percent Employment by Industry

	Agriculture, Forestry, Fisheries	Manufacturing	Wholesale and Retail Trades	Professional and Related Services	Other
Region 2	14.8	9.1	19.9	25.5	30.7
Region 4	19.7	7.5	22.1	20.8	29.9
Becker Cty.	18.8	8.9	21.2	17.0	34.1
Clearwater Cty.	28.5	11.6	13.4	22.3	24.2
Hubbard Cty.	11.8	9.1	19.6	22.9	36.6
State	7.4	20.3	21.1	18.9	32.3

The amount of tourist generated income for Becker and Hubbard Counties is quite significant but is less significant for Clearwater County. The table below shows the comparison between the counties with the numbers corresponding to the following: 1) Tourist travel expenditures; 2) Tourist travel expenditures as percent of gross county sales; and 3) Tourist travel expenditures per county resident. These ranks are out of a total of 87 and are based on data collected in 1974.

County	1	2		3	
Hubbard	21	5	21.7%	6	$730.84
Becker	16	12	9.2%	10	$488.90
Clearwater	60	22	4.3%	43	$120.12

* State average is $254.40.

L. Land Use and Development Trends

1. Agricultural - There are only two farms within the park boundaries. One of these is an estate and is presently unoccupied. The land is now old field that will be allowed to revert back to its original condition. The other farm is only 100 acres in size, only .30 percent of the total authorized park area. Small grains and hay are usually grown on the land. The value of agricultural production of the farm is approximately $6,642, based on the following 1975 figures: $3.24 per bushel of hay and an average of 20.5 bushels per acre of hay in Clearwater County.

2. Residential - Only three year-round households are located in the project area. Approximately 75 acres or .23 percent of the park area is used for residential purposes. Two seasonal residences are located in the park. Two of these residents operate resorts on their land and the occupation of the other is unknown.

3. Commercial/Industrial - Three resorts and one tavern lie within the park boundaries. Acquisition of lands is aimed primarily at the parcels of land that these businesses lie on so that the State can close them down. A church building is located on one or the private parcels. This parcel is not of high priority for acquisition. The remaining land to be acquired is forest land.

   There is, at present, very little development pressure near the project area. Much of the adjacent land is owned by the county or is state forest land.

M. Existing Recreational Development - As previously stated, 30,163 acres or 91.90 percent of Itasca State Park is currently in public ownership for recreational purposes. At present, camping, picnicking, swimming and hiking facilities have been developed.

Two modern family compgrounds provide a total of 231 campsites and six housekeeping cabins. Modern toilet facilities are available in both areas and a trailer dumping station is located at one of the campgrounds. Primitive group camping is located in two areas, each on a small lake. Pit toilets and hand pumps are available in both areas and a large shelter building with cooking facilities is provided at one group site. Less rustic camping conditions are available at Douglas Lodge. Built in 1905, the lodge and its fifteen cabins can accommodate up to 120 people. For the basic necessities, the tourist is provided with modern sanitation facilities and a large dining room that is also open to the public.

Located on the picturesque shore of Lake Itasca is a large picnic grounds with 250 picnic tables.

Three big tourist attraction areas are the Mississippi Headwaters area, Brower Inn and the Natural History Museum. The Headwaters area has a parking lot, a gift shop, an Interpretive Center and modern toilets. The museum contains life-like wildlife displays along with other interpretive materials. Brower Inn is a modern building with a snack bar, a gift shop and toilet facilities.

For the more active tourist a swimming beach with modern toilet facilities is located on Lake Itasca. A lifeguard is on duty much of the time. Twenty hiking trails, totalling approximately 29 miles, allow the camper to experience nature and to observe those natural features of the area that cannot be reached by road. Pamphlets for self-guiding trails are available.

Along with these recreational facilities the park is also the home of the University of Minnesota forestry and biology stations. These educational programs have been in existence since 1908 and offer forestry training as well as courses in ecology and natural history.

III. ENVIRONMENTAL IMPACT OF THE PROPOSED ACTION

A. Impact on the Physical Environment - A major impact of the proposed acquisition will be a change in land use from residential/private recreational use/forest lands to public outdoor recreational use. The lands to be acquired will be allowed to assume a natural character which will have the effect of increasing the habitat for the animals common to the area and improving the park's aesthetic quality.

The structures on property purchased will be converted and utilized for park purposes where possible; otherwise they will be sold and/or removed. Areas in which the buildings are removed will be returned to natural conditions through plantings and seedings. More specifically, two resorts will be taken over and operated by the State, one resort will be torn down, buildings on one farm are decrepid and need to be removed, two residential structures will be removed from the area and a tavern will either be converted for park use or removed.

The major impact on soils and vegetation will be site specific to areas of development and use. The only planned development is a remodeling of the north entrance. The minimal adverse effects this will have on the environment will only be temporary.

No impact on water resources or water quality will occur. Also, there will be no lasting impact on air quality. The proposed development project will result in temporary dust disturbances.

B. Impact on Historical and Archaeological Resources - No impact on existing historic sites is foreseen. Discovery of additional sites may occur in the future. These will be protected from possible vandalism or destruction. Sites which may be discovered through recreational development might be partially harmed or destroyed by construction. However, through the agreement (See Appendix) with the State Historical Society, all construction will be stopped until the site can be surveyed and the Minnesota Historical Preservation Officer has determined how significant the site is and what should be done with it.

C. Impact on Transportation - Abandonment of approximately one mile of county and township road in the northeastern section of the park will take place as soon as those parcels of land being serviced by the road are acquired. Closing these two roads will provide more control over the park area for protection and maintenance of the park's resources. This abandonment will relieve the township and county of the burden of operating and maintaining these roads. Once the land is acquired they will also be relieved of their responsibilities of keeping a resort road in the northcentral part of the park open in the winter.

A need for significant lengths of new road are not anticipated. However, with the development of a new north entrance, this northern road will be resurfaced and probably expanded.

As acquisition of land eliminates their need, all telephone and electrical lines serving residences will be removed, if not needed by the park. New utility lines, if ever needed, will be placed underground, except where to do so causes excessive damage to the natural ecological associations of the area. When placed above ground, utility lines will be carefully planned and located to minimize their impact on park resources and the natural aesthetic quality of the area.

D. Impact on the Tax Base - Since acquisition will take place over an extended period of time, it is difficult to make an accurate estimate of the total tax loss. The total 1976 taxes on the 2,657 acres to be acquired are $4,847.91 and are distributed as follows:

Taxing Unit	Tax Loss $	Tax Loss %
Hubbard County	$ 107.38	
Becker County	339.60	
Clearwater County	4,400.93	
County	1,431.18	.23
School District #162	2,924.26	.51
Itasca Township	$ 45.49	6.44

The tax loss to the various local taxing units, with the exception of Itasca Township, is very insignificant. For the parcels in Hubbard and Becker County, one in each, the taxes lost are such a small percent of the total that it isn't worth figuring out the exact figure. Itasca Township will have a significant loss of 6.44 percent of its tax base.

E. Impact on the Economy - The impact of this project on the local economy wlll be adverse. The State will be removing private businesses without any further development on its part. Removal of one of the resorts and the tavern will decrease the amount of tourist dollars spent in the area. The loss of agricultural income, $6,642 is very minimal but none-the-less a loss.

The benefit from recreation at Itasca State Park is $1,196,077.25 annually based on 1975 attendance rates.

Campers	90,520 x $3.90/day* x 1.3 days**	= $ 458,936.40
Day Users:	546,771 x $1.35/day***	= 738,140.85
	TOTAL	= $1,196,077.25

* Department of Agricultural and Applied Economics, University of Minnesota

** Data from Park Camping Permits

*** Principles and Standards for Planning Water and Related Land Resources, September 19, 1973.

F. Social Impact - The proposed acquisition will result in the relocation of three residences and four commercial establishments. The owners are not forced to sell to the State. They may sell to anyone, but by selling to the State they are eligible for relocation and replacement housing assistance under Public Law 91-646. Due to this allowance, it is questionable whether those people suffer any hardship.

Acquisition within the project area would result in the loss of three resorts. The State may just take over operation of these facilities, still providing the tourist with a choice of accommodation types. However, if the buildings are removed, this will be a loss to those people preferring these accommodations. Resort-type facilities would have to be developed by the private sector outside the park to accommodate these displaced tourists.

The tavern, when acquired and removed, will result in the loss of a social gathering place for both park visitors and nearby residents.

Temporary noise and dust disturbances will result from construction. Development plans are very minimal, thus this effect will be very minimal. Incidences of littering and trespassing on private property adjoining the park should not increase because of acquisition.

IV. MITIGATING MEASURES INCLUDED IN THE PROPOSED ACTION

The land owners, willing sellers in nearly all cases, are eligible for relocation assistance under Public Law 91-646, the Uniform Relocation Assistance and Real Property Acquisition Policies Act. This generally covers any economic hardship caused by relocating their home or business.

In limited cases, retired landowners refuse to sell their property because an unreasonable hardship would be created. In these cases the State will offer the landowner a life tenure on up to ten acres of land surrounding his buildings, for residential purposes. This allows the owner and spouse the privilege to live out their lives in their home at no cost. Relocation costs are thus avoided.

On the parcel of land being used for agriculture it is advantageous for the State to allow a lease arrangement with the farm owner for a period of one or two years following purchase of the land. This allows the lessee to plant the same crop that was planted the year in which the land was acquired, but he must dispense with the use of any chemical herbicides that year. Immediately following harvest of the crop, the land must be thoroughly disked, dragged and seeded with June grass, perennial rye and fescues. The following year, the lessee has the right to harvest a hay crop. This arrangement avoids the furrowed texture of the land surface often left from row crops and converts croplands to grasslands efficiently and quickly. It also allows the owner time to reduce his stock of farming equipment should he desire not to continue in agriculture. The lessee is not required to pay any monetary consideration in lieu of his services and costs rendered in reestablishing the grasslands.

If the owner has planted a crop on the land which will not be harvested prior to filing of the deed to the State, provisions are made for the owner to harvest that crop at no additional expense to him.

The tax loss to the local taxing units will occur gradually. Except for Itasca Township, the overall tax loss is less than .51 of a percent. This loss will be partially mitigated to the county and township by a reduction in services it must provide. The duties of road maintenance, fire protection and police protection within the park will be assumed by the park manager and his staff. Outside assistance will be required only in extreme emergencies. The tax loss to the school district will be mitigated by increased state school aid.

New historical/archaeological sites may be discovered within the park and/or on lands to be acquired because the park lands have not undergone intensive site surveys, site testing and excavation. All park personnel and private contractors engaged in construction for the State Park System are required to watch for archaeological materials. If any artifacts are unearthed, work is to halt and the findings are to be reported to the State Archaeologist immediately. Work will not commence again until confirmation is received from the Minnesota State Historical Society.

V. ADVERSE AFFECTS WHICH CANNOT BE AVOIDED SHOULD THE PROPOSAL BE IMPLEMENTED

- Loss of agricultural land to recreational use.
- Loss of residential land to recreational use and the resultant 3 relocations.
- Loss of commercial lands for recreational use and the resultant displacement of 4 commercial establishments.
- Loss of $4,847.91 of tax revenue to local taxing units.

There will be no adverse environmental effects as a result of acquisition of lands. Subsequent development will result in erosion problems and removal of vegetation. These obvious effects will be site-specific and temporary. Soil compaction will occur in high use areas.

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

Short-term use of the environment in relationship to maintenance and enhancement of long-term productivity are considered not in terms of years, but rather in terms of what must be sacrificed to gain certain benefits.

GAINS	LOSSES
1. Preservation in perpetuity of about 2,657 acres of open space to provide a variety of outdoor recreation opportunities to 60,000 visitors annually.	Loss of 100 acres of cropland, 3 residences, and 4 commercial establishments.
2. Reforestation or reversion to a natural condition of acres currently in row crops or pasture.	Relocation of three families.
3. Improved wildlife habitat and subsequent increase in number of wildlife species.	Expenditures of $400,000 of public funds for acquisition of private lands.
4. Preservation and possible restoration of historical and archaeological resources.	Loss of $4,847.91 of taxes to the local taxing units. A .23% loss to Clearwater County, .51% loss to School District #162, 6.44% loss to Itasca Township and an insignificant loss to Hubbard and Becker Counties.

VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The acquisition and development of the project area would result in the permanent conversion of present private land uses into park and recreation purposes in perpetuity for Minnesota residents for which the park was originally established by legislative action.

A secondary commitment to recreation and open space is required by participation in the Land and Water Conservation Fund program, Section 6(f) of the Land and Water Conservation Fund Act, (as amended) states that approval of the Secretary of the Interior must be granted before a change in use of any fund associated lands can be made. LSCF monies are received on a cost sharing basis for acquisition and development of

Minnesota Park areas.

VIII. ALTERNATIVES TO THE PROPOSED ACTION

The park was established by law in 1891. At present 30,163 acres have been acquired within the statutory boundaries of the park. Both state and federal monies have been spent in acquiring the land and developing the public use facilities within the park. With these facts in mind, no alternative site for the park can be considered.

A. No Action - No action on this project would eliminate any possibility of acquiring lands which are still relatively undeveloped and obtainable. Continued private ownership would mean retention of an additional 2,657 acres of land on tax rolls. However, the possibility of private lands being put to incompatible uses which would have a negative effect on park use and its enjoyment by the public would remain. The full values and use of some of the parcels already acquired would be lost.

No action on acquiring more land for public use would do nothing for easing the difficulty in managing the park, caused by uncontrolled accesses to the public use area.

B. Acquisition with no Development - This alternative involves the acquisition of the remaining private lands within the park boundaries with no further recreational development. Overcrowding of existing facilities is a reality today. No development of facilities to ease this situation is planned. The intent is to allow the private sector to accommodate the overflow from the park.

The only development planned on the newly acquired land that would be stopped by this action is the remodeling of the north entrance to the park.

C. Project of a Smaller Scope - No deletion of park boundaries is intended to take place. A 2,455 acre addition to the boundaries was just made in 1976. Justification for this expansion is twofold:

1. To have a single entrance on the north end of Itasca to better inform the park visitors coming into the park as well as to eliminate the upkeep and maintenance costs of maintaining extra roads, extra entrances and control points.

2. The two willing sellers have buildings which are old and in need of extensive repair and remodelling. Now would be a strategic time to purchase these parcels. Acquisition of these lands would remove unsightly conditions near the park. Services provided by these two businesses could be taken over by nearby businesses.

There was general citizen support behind this boundary expansion and the Itasca Park Advisory Group also encouraged the expansion. It is highly unlikely that a deletion of these boundaries would now occur.

D. Project of a Larger Scope - It is also highly unlikely that the boundaries of this park will be expanded. To the west and to the south of the park is county and state forest land. There is no need to acquire any parcels of it. An expansion of the park east of highway #71 was made within the last ten years. The purpose was to stop development along the highway in order to enhance the aesthetic qualities of the park as you see it from this road. The land recently added onto the northern boundary of the park should be sufficient to fulfill the objectives for park development in this area.

All proposals involving deletions or expansions of the park boundaries would require legislative approval.

Woody Plants

Jack pine
White pine
Red or norway pine
White spruce
Black spruce
Balsam fir
Tamarack
White cedar
Green ash
Red ash
Black ash
Choke cherry
Pin cherry
Hazlenut
Red-osier dogwood
Hawthorn
Bush honeysuckle
Mountain maple
Red maple
Hard maple
Trembling aspen
Big-tooth aspen
Balsam poplar
Paper birch
Yellow birch
Willow
Blackberry
Dwarf raspberry
Raspberry
Elderberry
Mountain ash
Snowberry
Yew
Slippery elm
Cranberry
Highbush cranberry
River-bank grape
Prickly ash
Tag alder
Leatherwood
Hackberry
American elm
Ironwood
Blueberry
Poison ivy
Dwarf dogwood
Bur oak
Red oak
Basswood
Wild plum
Juneberry
Wild rose
Round-leaved dogwood
Box elder
Big rosemary
Bearberry
Bog birch
Blue birch
Bittersweet
Alternate-leaved dogwood
Panicled dogwood
Wintergreen

Flowering Plants

Yarrow
Sweet flag
Boneberry
Maidengair fern
Giant hyssop
Quack grass
Red top
Water plantain
Wild onion
Ragweed
Hog peanut
Pearly everlasting
Thimble flower
Wood anemone
Dogbane
Columbine
Rock cross
Sassaparilla
Sage
Wild ginger
Swamp milkweed
Common mildweed
Asperella
Swamp white aster
Smooth aster
Side-flowering aster
Lindley's aster
Large-leaved aster
Panicled aster
Rough blue aster
Vetch
Lady fern
Beggar's ticks
Grape fern
Water shield
Brome grass

Flowering Plants (cont.)

Spikenard
Mistletoe
Chickweed
Jack-in-the-pulpit
Absinthe
Bedstraw
Closed gentian
Fringed gentian
Crane's bill
Gerardici
Avens
Monna grass
Bracted rein orchid
White rein orchid
Hooker's rein orchid
Green run orchid
One-leaved rein orchid
Green gentian
Sanflower
Ox-eye
Liverleaf
Cow parsnip
Alumroot
Mare's-tail
Jeweleseed
Blueflag
Rush
Wild lettuce
Yellow pea
Shepard's purse
Sedge
Blue cohosh
Horned pondweed
Turtlehead
Lamb's quarters
Gossefoot
Poison hemlock
Cinna grass
Nightshade
Canada thistle
Swamp thistle
Clintonia
Bastard toadflax
Morning glory
Goldthread
Coral root
Bunchberry
Yellow squirrel corn
Honewirt
Hound's tongue
Martingale
Stemless lady slipper
Ramshead lady slipper
Reed grass
Wild calla
Water starwart
Marsh marigold
Bluebell
Swamp blueflower
Small yellow ladyslipper
Large yellow ladyslipper
Pink and white ladyslipper
Bladder fern
Oat grass
Tick trefoil
Sundew
Shield fern
Spikerush
Canada waterweed
Rye grass
Fireweed
Rattlesnake plantain
Horsetail
Scouring rush
Joint grass
Daisy fleebone
Cotton grass
Mustard
Boneset
Spurge
Fescue grass
Wild strawberry
Hemp nettle
Swamp pea
Purple pea
Cut grass
Duckweed
Bush clover
Blazing star
Turk's cap lily
Wood lily
Toadflax
Twinflower
Puccoon
Water lobelio
Lupine
Cockle
Ground pine
Lossestrife
False lily of-the-valley
White sweet clover
Yellow sweet clover
Buckbean
Mondey flower
Partridge berry
Bishop's cap
Indian pipe

Flowering Plants (cont.)

Water milfoil
Najas
Watercress
Catnip
Ground ivy
Cow lily
White water lily
False solomons seal
Goldenrod
Burreed
Wouldwort
Dandelion
Meadow rue
Starflower
Nodding wakerobing
White wakerobin
Cattail
Stinging nettle
Bladderwort
Eel grass
Mullein
Vervain
Blue violet
White violet
Solomon's seal
Bird's foot violet
Yellow violet
Wild rice
Sphagnum moss
Lalrader tea
Bellwert
Evening primrose
Sensitive fern
Mountain rice
Cinnamon fern
Interrupted fern
Royal fern
Witch grass
Panic grass
Grass of Parnassus
Pentslemon
Clover
Coltsfoot
Reed canary grass
Oak fern
Timothy
Prairie phlox
Ground cherry
Meadow grass
Wild Buckwheat

Birds

Loon
Pied-billed grebe
Great blue heron
American bittern (rare)
Mallard
Black duck
Blue-winged teal
Wood duck
American golden eye
Ruddy duck (rare)
Hooded merganser
Turkey vulture
Sharp-skinned hawk
Cooper's hawk (rare)
Red-tailed hawk
Broad-winged hawk
Bald eagle
Marsh hawk
Osprey
Duck hawk (rare)
Spruce grouse (rare)
Ruffed grouse (rare)
Virginia rail
Sora
Flicker
Semipalmated plover (rare)
Killdeer
Spotted sandpiper
Solitary sandpiper
Greater yellow-legs (rare)
Lesser yellow-legs
Pectoral sandpiper
Baird's sandpiper
Least sandpiper
Silt sandpiper (rare)
Semipalmated snadpiper
Herring gull
Common tern
Black tern
Mourning dove
Black-billed cuckoo
Great horned owl (rare)
Barred Owl
Saw-whet owl (rare)
Whip-poor-will (rare)
Nighthawk
Chimney Swift
Ruby-throated hummingbird
Belted kingfisher
Black-capped chickadee

Birds (cont.)

Pileated woodpecker
Red-headed woodpecker
Yellow-bellied sapsucker
Hairy woodpecker
Downy woodpecker
Artic three-toed woodpecker (rare)
Kingbird
Arkansas kingbird (rare)
Crested flycatcher
Phoebe
Alder flycatcher
Least flycatcher
Wood peewee
Olive-sided flycatcher
Tree swallow
Bank swallow
Rough-wing swallow
Barn swallow
Cliff swallow
Purple martin
Canada jay
Blue jay
Crow
Black and white warbler
Orange-crowned warbler
Nashville warbler
Parula Warbler
Yellow warbler
Magnolia warbler
Cape May warbler
Myrtle warbler
Black-throated green warbler
Blackburnian warbler
Chestnut-sided warbler
Bay-breasted warbler
Black-pall warbler
Pine warbler
Western palm warbler
Ovenbird
Grinnell's water-thrush
Connecticut warbler (rare)
Mourning warbler
Northern yellow-throat
Wilson's warbler
American redstart
Hudsonian chickadee
White-breasted nuthatch
Red-breasted nuthatch
Brown creper
House wren
Winter wren (rare)
Prairie marshwren (rare)
Short-billed marshwren
Catbird
Robin
Wood thrush (rare)
Hermit thrush
Olive black thrush
Willow thrush
Bluebird
Golden-crowned kinglet
Cedar waxwing
Migrant shrike (rare)
Yellow-throated vireo
Blue-headed vireo
Red-eyed vireo
Philadelphia vireo (rare)
Warblin vireo
Western meadowlark (rare)
Yellow-headed blackbird
Red-winged blackbird
Baltimore oriole
Brewer's blackbird (rare)
Bronzed grackle
Cowbird
Scarlet tanager
Rose breasted grosbeak
Indigo bunting (rare)
Dickrissil (rare)
Purple finch
Fine Siskin
Goldfinch
Red crossbill (rare)
White-winged crossbill (rare)
Red-eyed towhee
Savannag sparrow
Vesper sparrow
Slate colored junio
Chipping sparrow
Clay-colored sparrow
White-throated sparrow

Reptiles

Black-banded skink
Common garter snake
Red-sided garter snake
Red-bellied snake
Snapping turtle
Painted turtle

Amphibians

Newt
Jefferson's salamander
Tiger salamander
Common toad
Swamp tree toad
Spring peeper
Common tree frog
Wood frog
Leopard frog
Green frog (rare)
Mink frog (rare)

Fish

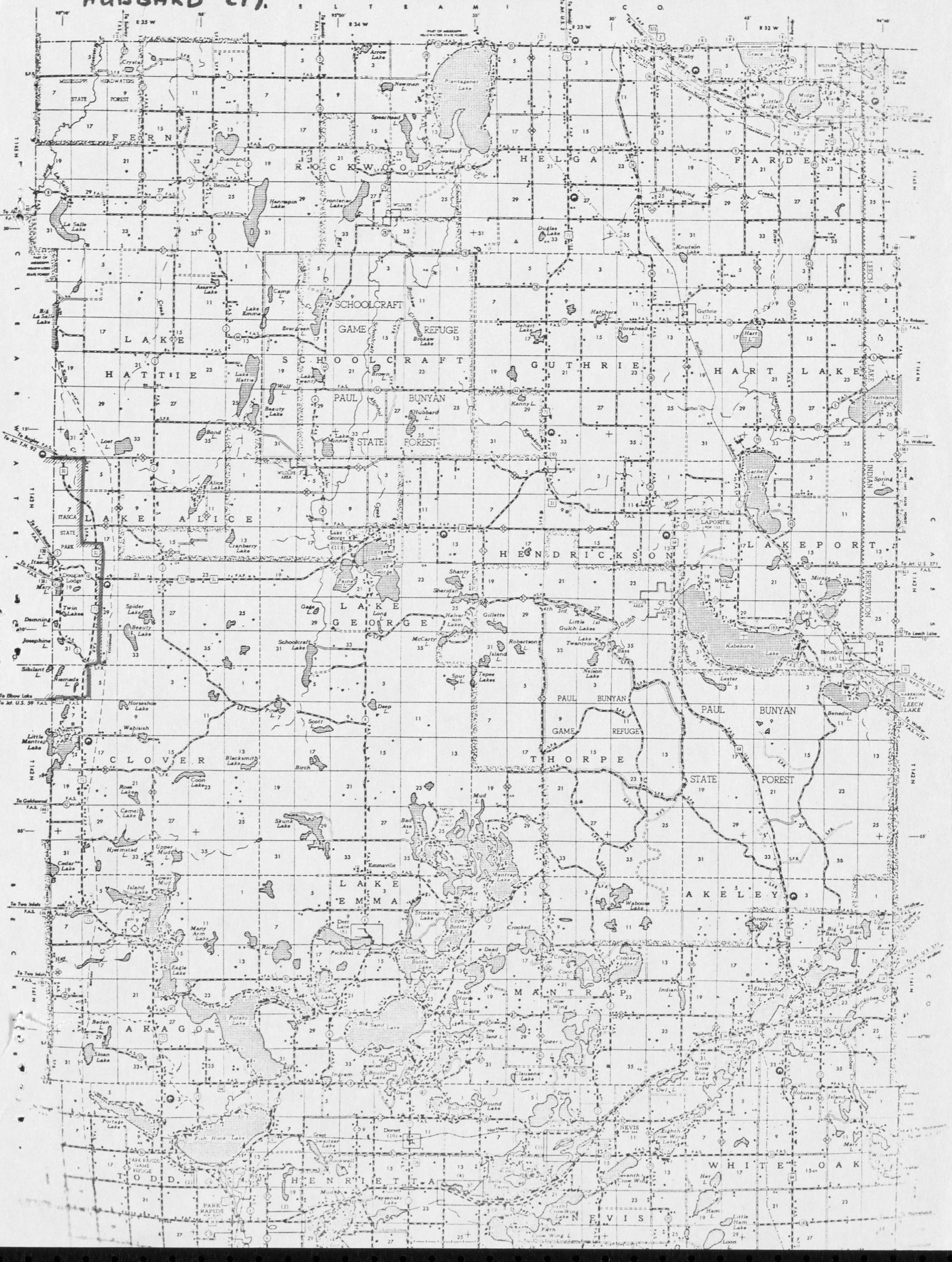
Whitefish
Browntrout
Brook trout
White sucker
Longnosed dace
Hornyhead chub
Creek chub
Red-bellied dace
Golden shiner
Pearl dace
Fathead minnow
Bluntnose minnow
Common shiner
Lake emerald shiner
Spotted shiner
Blackchin shiner
Mimic shiner
Blacknose shiner
Brown bullhead
Tadpole Madtom
Mud minnow
Top minnow
Northern pike
Yellow perch
Walleye pike
Johnny darter
Iowa darter
Sargemouth bass
Black crappie
Rock bass
Green sunfish
Bluegill
Pumpkinseed
Smallmouth bass
Northern muddler
Fivespine stickleback

Mammals found in Itasca State Park

Masked Shrew
Water Shrew
Arctic Shrew
Pygmy Shrey
Star-nosed Mole
Little Brown Bat
Silver-haired Bat
Big Brown Bat
Red Bat
Hoary Bat
Cottontail Rabbit
Snowshoe Rabbit
Eastern Chipmunk
Least Chipmunk
Woodchuck
Ground Squirrels
Gray Squirrel
Fox Squirrel
Red Squirrel
Flying Squirrels
Plains Pocket Gopher
Beaver
Red-back Mouse
Meadow Vole
Muskrat
Southern Boy Lemming
House Mouse
Meadow Jumping Mouse
Woodland Jumping Mouse
Porcupine
Coyote
Gray Wolf
Red Fox
Gray Fox
Black Bear
Raccoon
Ermine Weasel
Least Weasel
Long-tailed Weasel
Mink
Badger Striped Skunk
River Otter
Fisher
Bobcat

Deer Mouse
White-footed Mouse
White-tailed Deer
Moose

HUBBARD CTY.



BELTRAMI CO.
R 35 W
R 34 W
R 33 W
R 32 W
MISSISSIPPI HEADWATERS STATE FOREST
FERN
ROCKWOOD
HELGA
FARDEN
Plantagenet Lake
Grace L.
Midge Lake
Little Midge L.
Crystal L.
Newman L.
Arrow Lake
Spearhead L.
Diamond L.
Hennepin Lake
Frontenac Lake
La Salle Lake
Duglas Lake
Knutson Lake
Bungashing Creek
Nary
Becida
Rosby
SCHOOLCRAFT GAME REFUGE
LAKE HATTIE
SCHOOLCRAFT
GUTHRIE
HART LAKE
PAUL BUNYAN STATE FOREST
Big La Salle Lake
Lake Hattie
Lake Emma
Camp L.
Evergreen L.
Broken Lake
Brown L.
Wolf L.
Beauty Lake
Hubbard L.
Lake Minnie
Lost L.
Band L.
Kenny L.
Dehart Lake
Hatchers
Horsehead L.
Hart L.
Steamboat Lake
Guthrie
LEECH LAKE INDIAN RESERVATION
To Bagley
To Wilkinson
To Robson
LAKE ALICE
HENDRICKSON
LAKEPORT
ITASCA STATE PARK
Alice Lake
Cranberry Lake
Lake George
Paine L.
Shanty L.
Sheridan L.
Garfield Lake
LAPORTE
Willow L.
Mirage L.
Kabekona Lake
Benedict
Douglas Lodge
Mary L.
Twin Lakes
Itasca
Deming L.
Josephine L.
Sibilant L.
Niemada L.
Spider Lake
Beauty Lake
LAKE GEORGE
Gage L.
Long L.
Halver Lakes
Gillette
Little 1st Gulch Lakes
Robertson L.
Lake Twentyone
Nelson Lake
McCarty L.
Schoolcraft Lake
Island L.
Tepee Lakes
Spur L.
Gulch
Lester L.
Benedict L.
LEECH LAKE
To Leech Lake
To Walker
To Elbow Lake
To Jct. U.S. 59
Horseshoe Lake
Wabisish
Little Mantrap Lake
CLOVER
Blacksmith Lake
Coon Lake
Rose Lake
Camel Lake
Pine L.
Scott L.
Deep L.
Birch
PAUL BUNYAN GAME REFUGE
THORPE
PAUL BUNYAN STATE FOREST
Mud L.
Skunk Lake
Bad Axe L.
To Goldenrod
Hjermstad L.
Upper Mud L.
Lower Mud L.
Island Lake
Cedar Lake
Emmaville
LAKE EMMA
Mantrap Lake
Petit L.
Waboose Lake
AKELEY
To Two Inlets
Many Arm Lake
Deer Lake
Stocking Lake
Upper Bottle L.
Lower Bottle L.
Crooked L.
Dead L.
Crooked Lake
Schroeder L.
Big Bass L.
Little Bass L.
Upper Bass L.
Eagle Lake
Rice L.
Pickerel L.
Hay
MANTRAP
Crow Wing L.
Indian L.
Eleventh Crow Wing L.
Cramer
Shingobee Cr.
ARAGO
Potato Lake
Big Sand Lake
Beden L.
Sloan Lake
Gilmore
Dead Horse L.
Spear L.
Tenth Crow Wing L.
Ninth Crow Wing Lake
AKELEY
Shingobee
Mud L.
Ingram
Boulder L.
Clausens Lake
Round Lake
Deer L.
Robinson Lake
Island L.
Steel L.
Portage Lake
Fish Hook Lake
Dorset
NEVIS
Eighth Crow Wing Lake
Northern
Mary L.
PARK RAPIDS GAME REFUGE
TODD
HENRIETTA
WHITE OAK
Belle Taine
Seventh Crow Wing L.
Hay L.
PARK RAPIDS
Mud L.
Peysenski Lake
Sixth Crow Wing Lake
Fifth Crow Wing L.
NEVIS
Ham L.
Little Ham Lake
Loon L.

MINNESOTA ENVIRONMENTAL QUALITY COUNCIL
ENVIRONMENTAL ASSESSMENT WORKSHEET (EAW)
AND NOTICE OF FINDINGS

DO NOT WRITE IN THIS SPACE
E.R. # ______________

NOTE: The purpose of the Environmental Assessment Worksheet (EAW) is to provide information on a project so that one can assess rapidly whether or not the project requires an Environmental Impact Statement. Attach additional pages, charts, maps, etc, as needed to answer these questions. Your answers should be as specific as possible. Indicate which answers are estimated.

I. SUMMARY

A. ACTIVITY FINDING BY RESPONSIBLE AGENCY (PERSON)

[XXX] Negative Declaration (No EIS) [ ] EIS Preparation Notice (EIS Required)

B. ACTIVITY IDENTIFICATION

1. Project name or title Itasca State Park Pine Restoration Projects

2. Project proposer(s) Department of Natural Resources, Division of Parks

   Address DNR Region I, Route 5, Box 41A, Bemidji, MN 56601

   Telephone Number and Area Code (218) 755-3976

3. Responsible Agency or Person Department of Natural Resources, Office of Planning

   Address Box 10(C), Centennial Building, St. Paul, MN 55155

   Person in Responsible Agency (Person) to contact for further information on this EAW: Frank Knoke, Division of Parks Telephone 612-296-6226

4. This EAW and other supporting documentation are available for public inspection and/or copying at: Location 2nd Floor Space Center or above address

   Telephone 612-296-6226 Hours 8:00-4:30

5. Reason for EAW Preparation

   [XX] Mandatory Category -cite MEQC Rule number(s) 6MCAR 3.024 B.1.z. [ ] Petition [ ] Other

C. ACTIVITY DESCRIPTION SUMMARY

1. Project location

   County Clearwater/ Becker City/Township name ______________

   Township number ______(North), Range Number ______ East or West (circle one),

   Section number(s) ______ Street address (if in city) or legal description:

   T143N, R36W, Section 18,19,20,31,32
   R142N, R36W, Section 5 & 6

2. Type and scope of proposed project:
Harvesting of 1186 acres of existing timber over a 5 year period and replanting mixed pine.

3. Estimated starting date (month/year) Winter 1980

4. Estimated completion date (month/year) June 30, 1984

5. Estimated construction cost NA

6. List any federal funding involved and known permits or approvals needed from each unit of government and status of each:

Unit of Government (federal, state, regional, local)	Name or Type of Permit/Approval or Federal Funding	Status
Minnesota DNR	Informal timber sale permit	To be applied for as needed.
Minnesota DNR, PCA	Burning permit	To be applied for as needed.

7. If federal permits, funding or approvals are involved, will a federal EIS be prepared under the National Environmental Policy Act? X NO ___ YES ___ UNKNOWN

II. ACTIVITY DESCRIPTION

A. Include the following maps or drawings:
1. A map showing the regional location of the project.
2. An original 8½ x 11 section of a U.S.G.S. 7½ minute, 1:24,000 scale map with the activity or project area boundaries and site layout delineated. Indicate quadrangle sheet name. (Original U.S.G.S. sheet must be maintained by Responsible Agency; legible copies may be supplied to other EAW distribution points.)
3. A sketch map of the site showing location of structures and including significant natural features (water bodies, roads, etc).
4. Current photos of the site must be maintained by the Responsible Agency. Photos need not be sent to other distribution points.

B. Present land use.
1. Briefly describe the present use of the site and lands adjacent to the site.
The land is within Itasca State Park and adjacent to the White Earth State Forest. The area is used for passive recreation.

2. Indicate the approximate acreages of the site that are:

a. Urban developed	NA acres		f. Wetlands (Type III, IV, V)	NA acres
b. Urban vacant	NA acres		g. Shoreland	NA acres
c. Rural developed	NA acres		h. Floodplain	NA acres
d. Rural vacant	NA acres		i. Cropland/Pasture land	NA acres
e. Designated Recreation/Open Space	1186 acres		j. Forested	1082 acres

3. List names and sizes of lakes, rivers and streams on or near the site, particularly lakes within 1,000 feet and rivers and streams within 300 feet.

   Twin Island Lake 71 acres
   8 unnamed wetlands, several small marshes

C. Activity Description

1. Describe the proposed activity, including staging of development (if any), operational characteristics, and major types of equipment and/or processes to be used. Include data that would indicate the magnitude of the proposed activity (e.g. rate of production, number of customers, tons of raw materials, etc). This project is being conducted to reestablish the former pine stand in Itasca State Park. Man's activities in the past and elimination of fire has eliminated pine regeneration. With removal of existing hardwoods, prescribed burning and planting, these stands can be reestablished. Commercial logging is the only economical means of removing the present hardwood stands. Cutting will occur over a five-year period. Following timber removal each treatment unit will be control-burned and replanted to pine. Hand, mechanical and chemical means of reducing competition from deciduous vegetation will be considered for use if the burns are not sufficiently effective.

2. Fill in the following where applicable:

   a. Total project area 1186 acres or Length --- miles
   b. Number of housing or recreational units ---
   c. Height of structures --- ft.
   d. Number of parking spaces ---
   e. Amount of dredging --- cu. yd.
   f. Liquid wastes requiring treatment --- gal/da
   g. Size of marina and access channel (water area) --- sq. ft.
   h. Vehicular traffic trips generated per day 20 ADT
   i. Number of employees 12
   j. Water supply needed --- gal/da Source: ______
   k. Solid waste requiring disposal --- tons/yr
   l. Commercial, retail or industrial floor space --- sq. ft.

III. ASSESSMENT OF POTENTIAL ENVIRONMENTAL IMPACT

A. SOILS AND TOPOGRAPHY

1. Will the project be built in an area with slopes currently exceeding 12%? ___ No _X_ Yes

2. Are there other geologically unstable areas involved in the project, such as fault zones, shrink-swell soils, peatlands, or sinkholes? ___ NO _X_ YES

3. If yes on 1 or 2, describe slope conditions or unstable area and any measures to be used to reduce potential adverse impacts.

   On slopes greater than 25% no mechanical equipment will be used. The slopes will be replanted to pine. The small peat area in the project will not be logged. Soils impacts are expected to be minimal.

4. Indicate suitability of site soils for foundations, individual septic systems, and ditching, if these are included in the project.

   NA

5. Estimate the total amount of grading and filling which will be done:
   _____ cu. yd. grading _____ cu. yd. filling
   What percent of the site will be so altered? NA %

6. What will be the maximum finished slopes? NA %

7. What steps will be taken to minimize soil erosion during and after construction?

   See logging contract regulations and restrictions in Addendum.

B. VEGETATION

1. Approximately what percent of the site is in each of the following vegetative types:

Woodland	91 %	Cropland/ Pasture	NA %
Brush or shrubs	NA %	Marsh	9 %
Grass or herbaceous	NA %	Other (Specify)	NA %

2. How many acres of forest or woodland will be cleared, if any? 1082 acres

3. Are there any rare or endangered plant species or areas of unique botanical or biological significance on the site? (See DNR publication The Uncommon Ones.) ___ NO X YES
   If yes, list the species or area and indicate any measures to be used to reduce potential adverse impact.

C. FISH AND WILDLIFE

1. Are there any designated federal, state or local wildlife or fish management areas or sanctuaries near or adjacent to the site? X NO ___ YES

2. Are there any known rare or endangered species of fish and wildlife on or near the site? (See DNR publication The Uncommon Ones.) ___ NO X YES

3. Will the project alter or eliminate wildlife or fish habitat? ___ NO X YES

4. If yes on any of questions 1-3, list the area, species or habitat, and indicate any measures to be used to reduce potential adverse impact on them.

   Page 1 of Addendum

D. HYDROLOGY

1. Will the project include any of the following: If yes, describe type of work and mitigative measures to reduce adverse impacts.

	NO	YES
a. Drainage or alteration of any lake, pond, marsh, lowland or groundwater supply	X	
b. Shore protection works, dams, or dikes	X	
c. Dredging or filling operations	X	
d. Channel modifications or diversions	X	
e. Appropriation of ground and/or surface water	X	
f. Other changes in the course, current or cross-section of water bodies on or near the site	X	

2. What percent of the area will be converted to new impervious surface? 0 %

3. What measures will be taken to reduce the volume of surface water run-off and/or treat it to reduce pollutants (sediment, oil, gas, etc.)?

Based on an unpublished study by William Patterson (U of M, College of Forestry) we feel that no special mitigation measures are necessary for sediment runoff from the project. In the above study Patterson found no detectable impact on water quality from a two hundred acre cut and burn near Squaw Lake.

4. Will there be encroachment into the regional (100 year) floodplain by new fill or structures? X NO ___ YES

   If yes, does it conform to the local floodplain ordinance? ___ NO ___ YES

5. What is the approximate minimum depth to groundwater on the site? 0 feet

E. WATER QUALITY

1. Will there be a discharge of process or cooling water, sanitary sewage or other waste waters to any water body or to groundwater? X NO ___ YES
   If yes, specify the volume, the concentration of pollutants and the water body receiving the effluent.

2. If discharge of waste water to the municipal treatment system is planned, identify any toxic, corrosive or unusual pollutants in the wastewater.

3. Will any sludges be generated by the proposed project? X NO ___ YES
   If yes, specify the expected volume, chemical composition and method of disposal.

4. What measures will be used to minimize the volumes or impacts identified in questions 1-3?

NA

5. If the project is or includes a landfill, attach information on soil profile, depth to water table, and proposed depth of disposal.

NA

F. AIR QUALITY AND NOISE

1. Will the activity cause the emission of any gases and/or particulates into the atmosphere? ____NO _X__ YES

If yes, specify the type and origin of these emissions, indicate any emission control devices or measures to be used, and specify the approximate amounts for each emission (at the source) both with and without the emission control measures or devices.

There will be emissions of exhaust gases from chain saws and logging equipment. The amount of exhaust from equipment will not require special controls.

2. Will noise or vibration be generated by construction and/or operation of the project? ____NO _X__ YES

If yes, describe the noise source(s); specify decibel levels [dB(A)], and duration (hrs/da) for each and any mitigative measures to reduce the noise/vibration.

Chain saws, skidders, mechanical harvesters and trucks during daylight hours, Monday through Saturday. This area of the park is not presently used by park visitors so no mitigation will be needed.

3. If yes on 1 or 2, specify whether any areas sensitive to noise or reduced air quality-(hospitals, elderly housing, wilderness, wildlife areas, residential developments, etc.) are in the affected area and give distance from source. This project is an Itasca State Park. There are no public use facilities in the project area. A park road, Wilderness Drive is adjacent to the NE corder of the project. The Two Spot Trail in the north boundary of the project is a snowmobile trail. A proposed new trail will cross the southern end of the project.

G. LAND RESOURCE CONSERVATION, ENERGY

1. Is any of the site suitable for agricultural or forestry production or currently in such use? ____NO _X__ YES

If yes, specify the acreage involved, type and volume of marketable crop or wood produced and the quality of the land for such use.

The project area is suitable for timber production, but as a state park, timber production is not a primary goal.

2. Are there any known mineral or peat deposits on the site? ____NO _X__ YES

If yes, specify the type of deposit and the acreage.

Small peat bogs are present throughout the project area, but are not large enough for commercial use. The project will not impact or impair these areas. As part of a state park no commercial use of peat bogs is possible.

3. Will the project result in an increased energy demand? X NO ___ YES
Complete the following as applicable:

a. Energy requirements (oil, electricity, gas, coal, solar, etc.)

Type	Estimated Annual Requirement	Peak Demand (Hourly or Daily) Summer	Winter	Anticipated Supplier	Firm Contract or Interruptible Basis?

b. Estimate the capacity of all proposed on-site fuel storage.

c. Estimate annual energy distribution for:

space heating NA %
lighting NA %
air conditioning NA %
processing NA %
ventilation NA %

d. Specify any major energy conservation systems and/or equipment incorporated into this project.

NA

e. What secondary energy use effects may result from this project (e.g. more or longer car trips, induced housing or businesses, etc.)?

NA

H. OPEN SPACE/RECREATION

1. Are there any designated federal, state, county or local recreation or open space areas near the site (including wild and scenic rivers, trails, lake accesses)? ___ NO X YES
If yes, list areas by name and explain how each may be affected by the project. Indicate any measures to be used to reduce adverse impacts.

Itasca State Park. This project will enhance the aesthetics of the park for future users. This park was established to conserve and perpetuate the pine stands. The project is being undertaken to fulfill this mandate. Short term aesthetics may be negative depending on individual preferences.

H. TRANSPORTATION

1. Will the project affect any existing or proposed transportation systems (highway, railroad, water, airport, etc)? X NO ___ YES

   If yes, specify which part(s) of the system(s) will be affected. For these, specify existing use and capacities, average traffic speed and percentage of truck traffic (if highway); and indicate how they will be affected by the project (e.g. congestion, percentage of truck traffic, safety, increased traffic (ADT), access requirements).

   Truck traffic from this project will not be routed through the main use areas in the park.

2. Is mass transit available to the site? NA NO ___ YES

3. What measures, including transit and paratransit services, are planned to reduce adverse impacts?

   NA

J. PLANNING, LAND USE, COMMUNITY SERVICES

1. Is the project consistent with local and/or regional comprehensive plans? ___ NO ___ YES

   If not, explain:

   NA

   If a zoning change or special use permit is necessary, indicate existing zoning and change requested.

2. Will the type or height of the project conflict with the character of the existing neighborhood? ___ NO ___ YES

   If yes, explain and describe any measures to be used to reduce conflicts.

   NA

3. How many employees will move into the area to be near the project? None
How much new housing will be needed? None

4. Will the project induce development nearby--either support services or similar developments? No
If yes, explain type of development and specify any other counties and municipalities affected.

5. Is there sufficient capacity in the following public services to handle the project and any associated growth?

NA

Public Service	Amount required for project	Sufficient capacity?
water	gal/da	
wastewater treatment	gal/da	
sewer	feet	
schools	pupils	
solid waste disposal	ton/mo	
streets	miles	
other (police, fire, etc)		

If current major public facilities are not adequate, do existing local plans call for expansion, or is expansion necessary strictly for this one project and its associated impacts?

NA

6. Is the project within a proposed or designated Critical Area or part of a Related Actions EIS or other environmentally sensitive plan or program reviewed by the EQC? X NO ____ YES
If yes, specify which area or plan.

7. Will the project involve the use, transportation, storage, release or disposal of potentially hazardous or toxic liquids, solids on gaseous substances such as pesticides, radioactive wastes, poisions, etc? ____ NO X YES
If yes, please specify the substance and rate of usage and any measures to be taken to minimize adverse environmental impacts from accidents.

See page 1 Addendum

8. When the project has served its useful life, will retirement of the facility require special measures or plans? ____ NO ____ YES
If yes, specify:

NA

K. HISTORIC RESOURCES

1. Are there any structures on the site older than 50 years or on federal or state historical registers? X NO ____ YES

2. Have any arrowheads, pottery or other evidence of prehistoric or early settlement been found on the site? X NO ____ YES
Might any known archaeologic or paleontological sites be affected by the activity? X NO ____ YES

3. List any site or structure identified in 1 and 2 and explain any impact on them.

L. OTHER ENVIRONMENTAL CONCERNS
Describe any other major environmental effects which may not have been identified in the previous sections.

III. OTHER MITIGATIVE MEASURES
Briefly describe mitigative measures proposed to reduce or eliminate potential adverse impacts that have not been described before.

Logging contract Regulations and Restoration -- See IV, Pages 2 and 3 of Addendum.

V. FINDINGS

The project is a private ( ) governmental (X) action. The Responsible Agency (Person), after consideration of the information in this EAW, and the factors in Minn. Reg. MEQC 25, makes the following findings.

1. The project is ( ) is not (X) a major action.
State reasons:

The project will impact less than 1% of the park each year. The project follows the legislators park management guidelines as set in 1975 ORA. There will be no growth or development as a result of the project.

2. The project does ( ) does not (X) have the potential for significant environmental effects.
State reasons:

The project will not change the use of the area. The project will result in reforestation of the area. The only change will be in vegetation type, pine in place of aspen.

3. (For private actions only.) The project is ( ) is not ( ) of more than local significance.
State Reasons:

IV. CONCLUSIONS AND CERTIFICATION

NOTE: A Negative Declaration or EIS Preparation Notice is not officially filed until the date of publication of the notice in the EQC Monitor section of the Minnesota State Register. Submittal of the EAW to the EQC constitutes a request for publication of notice in the EQC Monitor.

A. I, the undersigned, am either the authorized representative of the Responsible Agency or the Responsible Person identified below. Based on the above findings, the Responsible Agency (Person) makes the following conclusions. (Complete either 1 or 2).

1. X NEGATIVE DECLARATION NOTICE
No EIS is needed on this project, because the project is not a major action and/or does not have the potential for significant environmental effects and/or, for private actions only, the project is not of more than local significance.

2. ____ EIS PREPARATION NOTICE

An EIS will be prepared on this project because the project is a major action and has the potential for significant environmental effects. For private actions, the project is also of more than local significance.

a. The MEQC Rules provide that physical construction or operation of the project must stop when an EIS is required. In special circumstances, the MEQC can specifically authorize limited construction to begin or continue. If you feel there are special circumstances in this project, specify the extent of progress recommended and the reasons.

b. Date Draft EIS will be submitted: ________________________________
(month) (day) (year)

(MEQC Rules require that the Draft EIS be submitted within 120 days of publication of the EIS Preparation Notice in the EQC Monitor. If special circumstances prevent compliance with this time limit, a written request for extension explaining the reasons for the request must be submitted to the EQC Chairman.)

c. The Draft EIS will be prepared by (list Responsible Agency(s) or Person(s)):

____

Sonny Hagen Signature

Asst Commissioner Title

Dec. 21, 1979 Date

B. Attach an affidavit certifying the date that copies of this EAW were mailed to all points on the official EQC distribution list, to the city and county directly impacted, and to adjacent counties or municipalities likely to be directly impacted by the proposed action (refer to question III.J.4 on page 9 of the EAW). The affidavit need be attached only to the copy of the EAW which is sent to the EQC.

C. Billing procedures for EQC Monitor Publication

State agency ONLY:	Attach to the EAW sent to the EQC a completed OSR 100 form (State Register General Order Form--available at Central Stores). For instructions, please contact your Agency's Liaison Officer to the State Register or the Office of the State Register--(612) 296-8239.

ADDENDUM

III. C. 2. Bald Eagle and Osprey nest within the park. The nearest nest is over a mile from the project. There will be no impact on any of the nests. A Heron Rookery is located 1/4 mile from the project and an established buffer zone will prevent impact.

This project will provide nest site for these birds in the future. The project will provide habitat for Fisher as pine stands mature.

Snag management will provide habitat for other species of birds in the future.

3. The project will be beneficial to wildlife. It will increase vegetative diversity thus increasing the number of species in the project area.

III. J. 7. The herbicide to be used will be 2-4-D. It will be applied as per labeled instructions. The size of treatment areas will be limited to less than 300 acres at one time.

AERIAL SPRAY
Application of herbicide will be to the leaves of competing vegetation during maximum growth. When applied at this time, excellent control can be achieved at low cost. Application by helicopter.

GUIDELINES:

1. Weather conditions
   wind less than 6 mph
   relative humidity more than 50%
   temperature less than 80 F
   no spray in rainy or foggy weather
   no spray when air turbulance is so great as to effect the normal spray pattern

2. Other
   100 foot buffer strip along private land
   100 foot buffer strip along roads
   200 foot buffer strip along water (lake, river, stream)
   100 foot buffer strip along swamps or potholes
   100 foot buffer strip along sensitive and reserve areas

GROUND SPRAY
Application of herbicide to foliage of competing vegetation by ground applicators (mist blower, power sprayer, backpack sprayers, etc). This method is feasible where acreage is small (10 acres), the treatment required is variable or height of vegetation to be controlled is low.

GUIDELINES:

1. Weather conditions (same as serial spray)
2. Other (same as for aerial spray)

BASAL SRPAY
Application of herbicide to stems or woody plants at the ground line or just above. Hand method.

HAND INJECTION
Application of herbicide to the tree through cuts, frills, holes or notches. Application to tree after cut or frill is made or in one operation using a hypohachet injection tool.

IV. Other mitigating measures

Logging contract regulations and restructions

1. Clear-cut all merchantable timber as indicated in the appraisal report;

2. Fell trees away from swamps;

3. Utilize aspen and birch to 4" top diameter or less;

4. Certain areas shall be reserved from treatment and so indicated in the appraisal report;

5. Some stumpage may be excluded after harvest operations have begun;

6. Non-merchantable trees of non-reserve species shall be cut or pushed down and flattened to facilitate burning;

7. Cutting of non-commercial stands may be required;

8. Limbing can be done where the tree is felled,but topping must be done at a convenient site and the tops pushed into piles for burning;

9. Slash shall be flattened with a skidder or the like and kept out of swamps;

10. Slash shall be removed from reserve pine stands and kept away from pine tree bases;

11. Stumps shall not be higher than six inches from the ground, or stump heights shall be regulated for given conditions;

12. Roads: all shall be to minimum specifications;

    a. Main haul roads will be set up by the Division of Forestry and Parks. No deviations will be allowed without permission;

    b. Road construction debris shall be shoved well off the road and flattened. None shall be shoved into swamsp or drainage ways;

    c. Roads shall be constructed so as not to impede drainage;

    d. Truck turnouts for passing will be marked out along access roads;

    e. Minor maintenance and snow removal will be the responsibility of the timber operator;

13. Timber landings will be located a minimum of 200 feet off the main haul road according to the Forester's directions and to the minimum Division of Forestry specifications;

14. Any solid waste or equipment residue must be kept picked up and a garbage can provided for this purpose;

15. Oil from equipment oil changes must be drained into a receptacle for removal from the park;

16. All buildings and equipment must be removed from the permit area within the specified 90-day period;

17. Time of day or day of week or season for cutting may be restricted;

18. If there is some doubt or quiestion about some environmental problem, the operator is requested to contact the District Forester at the Itasca Ranger Station.

TABLE 1

Acres Treated Per Unit

Treatment Unit	Total Acres/Unit	Acres Reserved	Acres Treated
3	297	73	224
4	325	96	229
5	325	70	255
6	329	48	281
12	235	38	197

Acreages computed from 1:24,000 USGS Topographic Map

Treated acreages include areas to be partially cut

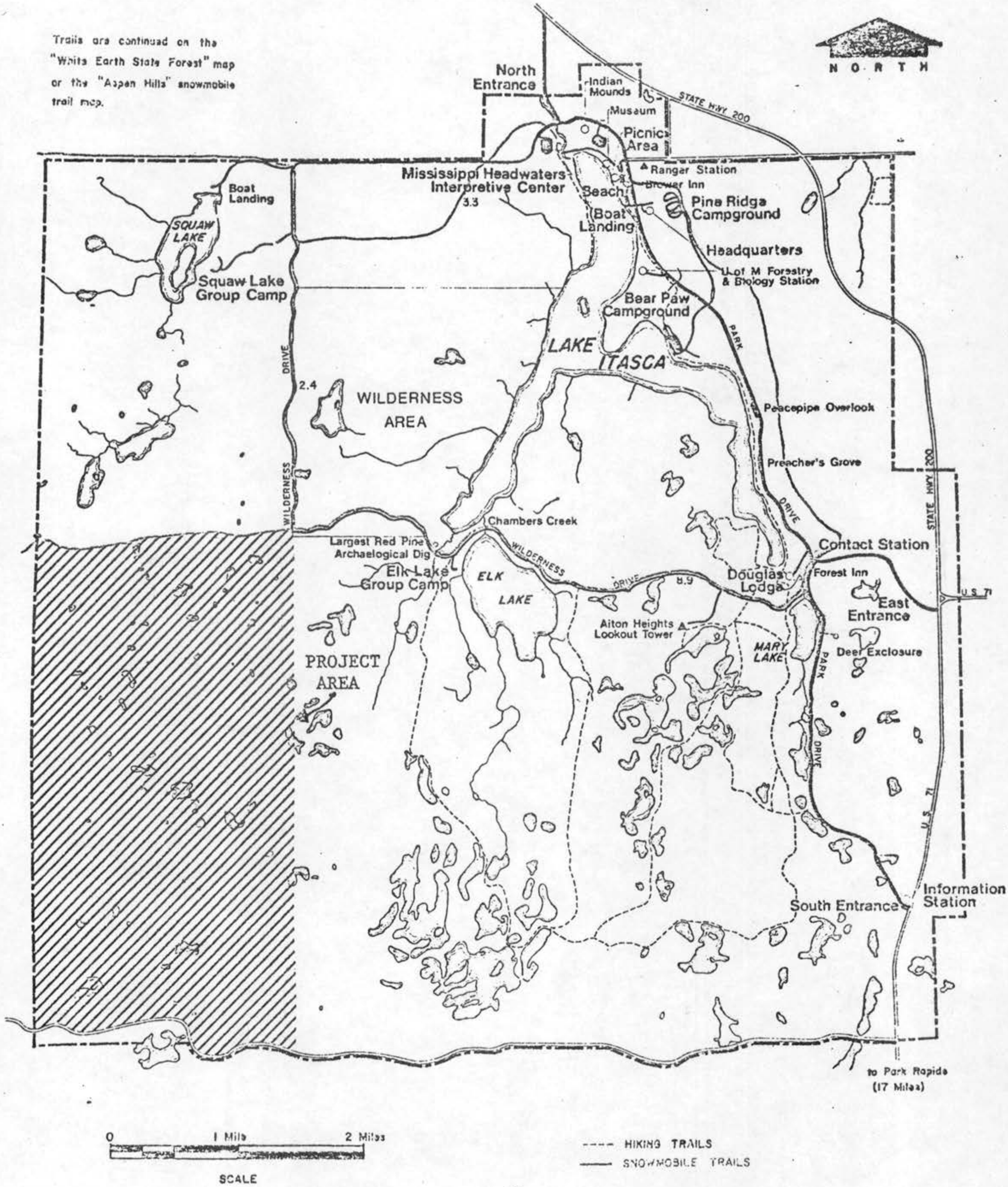
NA-00147-01
(A-21) 12-77

MINNESOTA DEPARTMENT OF NATURAL RESOURCES

Project Location Map

Itasca State Park

Clearwater County



Project Map

SENSITIVE AREAS

RESERVE AREAS

TREATMENT UNIT BORDER

PARTIAL CUT BORDER

Scale 1:24,000

Anchor Hill
Quad

ADMIN 1000 (Rev. 1/78)

STATE OF MINNESOTA

DEPARTMENT Natural Resources-Parks & Recreation **Office Memorandum**

TO : Dennis Thompson, Park Planner
Bureau of Project Planning

DATE: April 20, 1979

FHK

FROM : Frank H. Knoke
Environmental Specialist

PHONE: 296-6226

SUBJECT: Itasca Plan

Page 4 - The acres of private ownership seem too small. What about the farm on the south boundary? O.K.

Page 5 - What about the Squaw Lake Cabin; it is open to the public too? O.K.

Page 9 & 10 - The law states we are to "protect and perpetuate" not preserve. O.K.

Lee wrote these in the Regional Analysis section

Page 13 - Your occupancy description is confusing. Where is the 3.2%? Most of the park is in Clearwater County and some is in Becker County. It would seem logical to include them in this discussion.

will clarify.

Page 14 - How do you get to the park by train? The closest tracks are at Park Rapids. The Amtrack goes through Wadena. Bus from the closest passenger train route.

Page 17 - How does the Itasca Interpretive Program coordinate with the other 12 centers?

Page 20 - How much snowmobile trail is directly accessable from the park? How many other ski trails and how many miles of trail?

Page 26 - Is restoration allowed in a scientific and natural area? O.K. This would be "perpetuation" work to insure a growth of young pine, etc.

Page 32 - Snow depth is also important for skiers. Skiing on trails with little snow base can be rough on the skis. O.K.

Page 37 - It is true the pine was lost to logging but deer and fire protection kept it from coming back. Think the discussion on p. 40 covers this.

Page 40 - Site the statute. O.K.

Page 43 - Should read "to protect and perpetuate rare or unusual" not preserve. What conditions will be placed on fire in the scientific and natural area? ~~ex~~ O.K. see action # 1, p. 46

Page 45 - Restricted Management Zone - Why plant up the openings? We are creating them in other parks. Won't be filling up all the openings. Scattered planting to establish uneven age pine. Burning will help to maintain openings.

Page 49 - Action 11 - Which specific campsites?

Should be determined by park staff who are more familiar with the individual sites.

Have included in text an action requesting a population study be done. O.K.

Page 51 - There were also a large number of deer in the 1930's. We had a large die off in the Mid 1930's. Check the records at the biology station. What is the present deer population?
Neither the station or the wildlife mgr. have current figures.

Page 52 - Action #1 - The pine restoration project along with increased logging will most likely cause a population increase for the deer. In order to get the pine reestablished the deer herd must be kept low.

Action #2 - A reduction in the beaver population through permit trapping should reduce the number of troublesome beaver. It also may be possible to direct beaver to areas by vegetative management.

Page 53 - Deming Lake is a study lake. Any lakes the biological station is studying should be noted. O.K.

Page 57 - Action #4 - "Big-game bison" do you mean pre-historic bison? O.K.

Page 58 - Action #7 - What was found in the excavation? Got info. from MHS. Just meant to be a listing of sites. won't be in public copy.

Page 59 - The outlet to Lake Itasca is a dam. Also got from MHS. Won't be in public copy. In any case I'd hate to tell the public Itasca is dammed. Kind of like telling a kid there is no Santa Claus.

Page 63 - Action #1 - Any areas where logging will be done should also be checked. O.K.

Page 78 - Action #19 - Should read "maintain a minimum temperature X°, not heat. O.K.

Page 81 - Action #28 - Confusing which of the three two log buildings are you talking about? O.K

Page 85 - Action #43 - Do we want to admit that the road may be dangerous? This could have legal repercussions. ? Would it? O.K

Page 92 - Campgrounds - Which specific sites will be removed? O.K.
Should be determined by park staff.

This reads like we will have two over-used group camps if the demand is there. O.K.

Page 93 - Any launch service should be looked at to make sure it fits the area. The former launch looked out of place and disrupted the whole park.

Page 100 - Action #6 - Can we afford to operate a youth hostel? Every year money for maintenance and operation gets tighter. Why add a service?
We will hold on this pending further info. from the feds and the hostel organization.

Page 102 - Action #4 - Which sites? What spacing is desired? ~~O.K.~~
Determined by park staff

Action #5 - Doesn't read well. Why play games? Why not force recreational vehicles into the other campground? O.K.

Page 104 - Action #1 - Demand for a service should not be a major factor if the facility may be damaged by over use. Protection of the site will be of first importance. Use second.

Dennis Thompson
Page Three
April 20, 1979

Action #2 - What capacity should the camp be built for? O.K.

Page 107 - What size picnic shelter? How many tables should fit? O.K.

Page 110 - Lodging - Do we have a new policy to provide lodging for only those "who for physical reasons cannot camp." O.K.

How can we promote 24 hour use of park when it closes at 10:00 p.m.? overnight use. If the campers use lodging facilities they are making use of the park on a 24-hour basis.

Page 114 - Action #1 - Can't find this building on Page 77. labeled as "Headquarters Building". Near park office & service center. O.K.

Page 128 - Action #4 - Promote non-motor use by providing boats designed for rowing. Why?

Page 132 - Use "protect" in place of preserve. O.K.

Page ~~132~~ 135 - Where in the plan is a canoe launch and campground called for? Why is one needed? Wasn't discussed in the plan. Ask Ray Masterson about it.

FHK/hab
cc: Don D. Davison, Director
Milt Krona, Recreation Systems Coordinator
Wayland Porter, Park Systems Supervisor
Otto Christensen, Supervisor - Parks Planning
Bob Hance, Environmental Specialist - Planning

O.K. indicated ~~change~~ correction made in text

Good comments, thanks.

ADDENDUM

ITASCA STATE PARK

Environmental Assessment LW-27-00

I. <u>Description of the Proposed Action</u>

The Minnesota Department of Natural Resources intends to increase the quality of recreational opportunities at Itasca State Park by improving several park facilities.

The Bureau of Outdoor Recreation, as federal administering agency for the Land and Water Conservation Fund (LAWCON), proposes to participate with the State of Minnesota in the proposed projects.

The proposed projects include:

1)	Resurfacing the floors and making the facilities handicapped accessible in four campground toilets.	$14,000
2)	Resurfacing the floor and making a picnic ground toilet building handicapped accessible.	$ 3,000
3)	Rehabilitation and erosion control at Bear Paw Campground and below Douglas Cabins (see attached site map)	$13,000
	Total Cost	$30,000

The anticipated time frame for completion of the above projects is one construction season. State funds are available for completion of the projects.

II. Description of the Environment

Provided previously in the environmental assessment submitted for Itasca LAWCON Project LW-27-00.

III. Environmental Impact of the Proposed Action

The proposed improvements of toilets and campground will have minimal impact on the environment because facilities are already in place. Interior work on buildings will have no significant impact on flora and fauna; localized disruption of biotic resources will occur during landscaping and erosion control associated with campground restoration. This disruption will be temporary, since the purpose of the campground rehabilitation activities is vegetative stabilization and enhancement of the area.

Since areas to be rehabilitated have already been disturbed and there are no known historical and archaeological resources in these locations, no adverse impacts are anticipated. However, existing laws require that until an intensive, park-wide site survey has been completed, project locations must be individually surveyed and monitored. A comprehensive management plan addressing park-wide needs is mandated in the current biennium under the Minnesota Outdoor Recreation Act of 1975.

VI. Mitigating Measures Included in the Proposed Action

Much of the proposed erosion control and landscaping will mitigate against the long-term impacts of over-intensive use, which will be addressed in the forthcoming park master plan. A cultural project site assessment will precede project implementation.

V. Unavoidable Adverse Environmental Impacts

Rehabilitation of existing facilities will have minimal impact on plant and animal life in the immediate vicinity. Losses will be more significant in areas which undergo erosion control and landscaping, although these will be largely temporary.

VI. Relationship Between Short-term Uses and Long-term Productivity

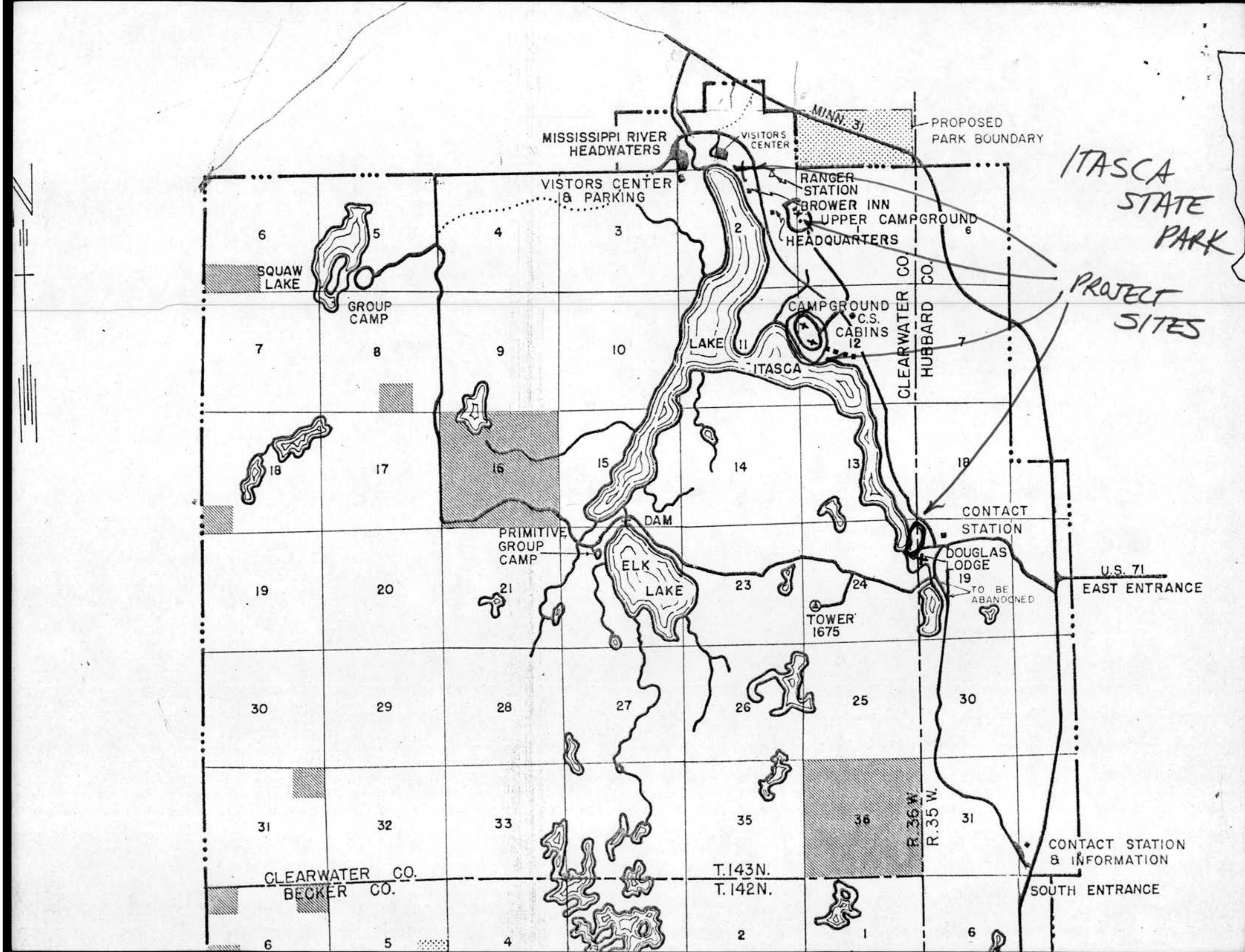
If the project is implemented, the resulting trade-off will result in the loss of some highly localized flora and fauna and expenditure of $30,000 in public funds to gain improved sanitation facilities and stabilization and beautification of a landscape deteriorated from over-intensive use. The long term effect will be enhanced recreational experiences for park visitors.

VII. Irreversable and Irretrievable Commitment of Resources

Project implementation will result in increased attractiveness of the area to recreationists and enhanced value of nearby recreational lands. The manpower, materials and funds necessary to carry out the project will also be irretrievably committed.

VIIIAlternatives to the Proposed Action

Major alternatives considered are: 1) no action and 2) a project of larger scope. In 1, failure to upgrade sanitation facilities and control erosion could result in intensified and accelerated degradation of resources resulting in eventual loss of the same flora and fauna athat would be sacrificed by the project. In 2, more extensive rehabilitation is not judged necessary at this time, since potential problems should be addressed in the master planning process.


ITASCA STATE PARK
PROJECT SITES
MINN. 31
PROPOSED PARK BOUNDARY
MISSISSIPPI RIVER HEADWATERS
VISITORS CENTER
VISTORS CENTER & PARKING
RANGER STATION
BROWER INN
UPPER CAMPGROUND
HEADQUARTERS
SQUAW LAKE
GROUP CAMP
CAMPGROUND
C.S. CABINS
LAKE ITASCA
CLEARWATER CO.
HUBBARD CO.
CONTACT STATION
DAM
PRIMITIVE GROUP CAMP
ELK LAKE
DOUGLAS LODGE
TO BE ABANDONED
U.S. 71
EAST ENTRANCE
TOWER 1675
R. 36 W.
R. 35 W.
CONTACT STATION & INFORMATION
CLEARWATER CO.
BECKER CO.
T.143N.
T.142N.
SOUTH ENTRANCE

ADDENDUM Handicapped trail

ITASCA STATE PARK

~~Addendum to~~ Environmental Assessment ~~Submitted with LAWCON Project~~
LAW #27-00
765

I. Description of the Proposed Action - ~~Itasca State Park was created by an act of the Minnesota State Legislature in 1891.~~

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The proposed projects include:

#1

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2) ~~Resurfacing one picnic ground toilet floor~~	$3,000
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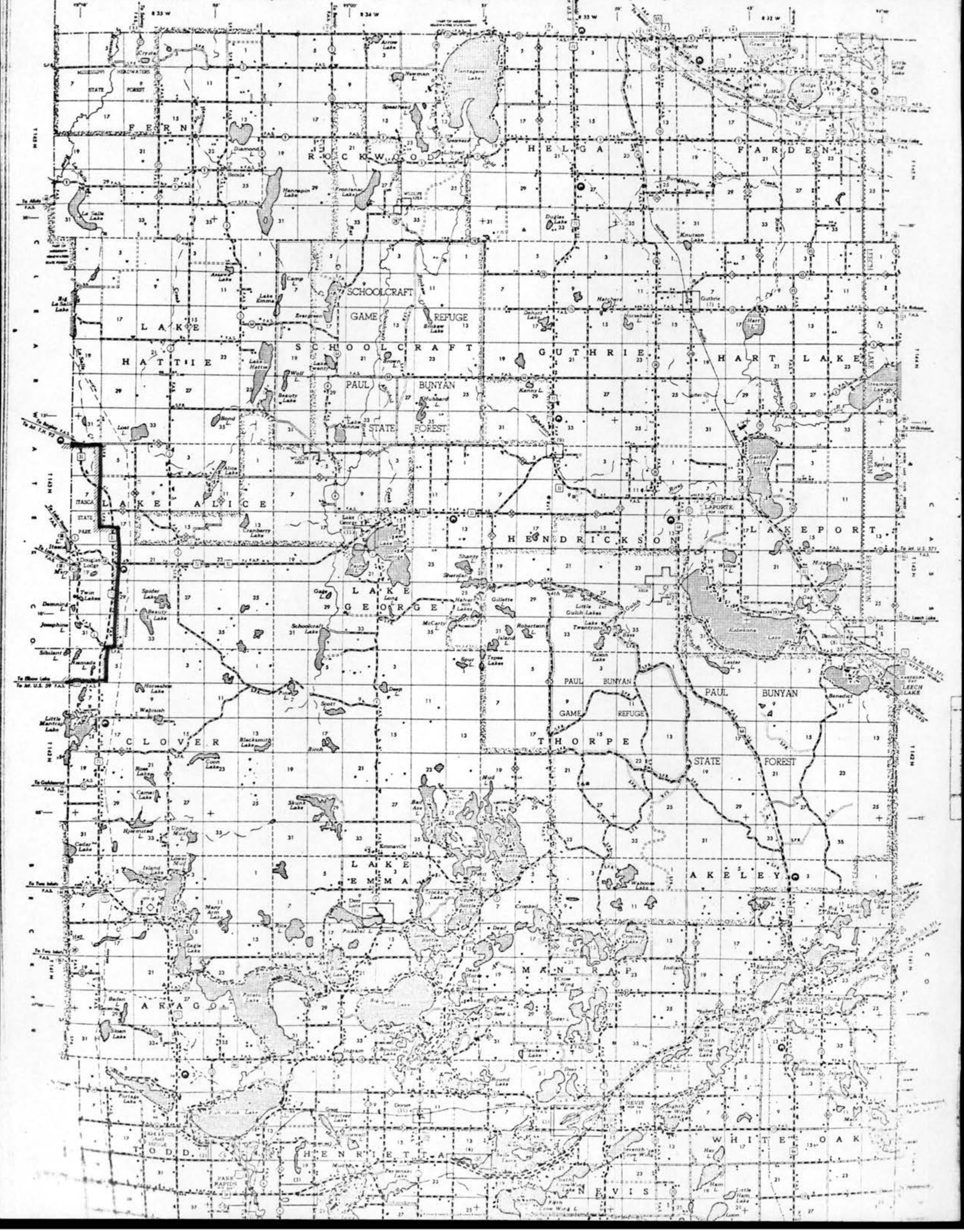
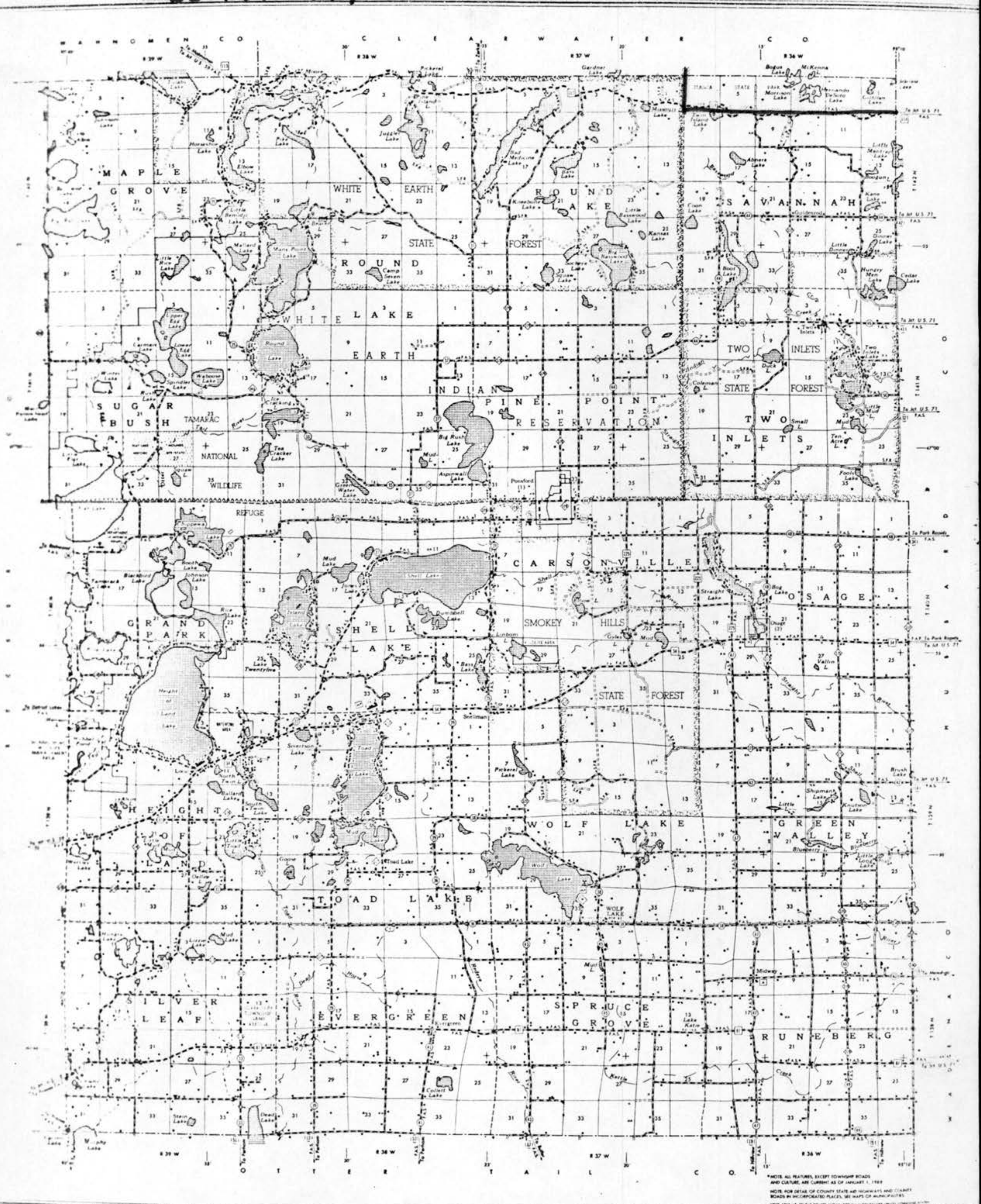
HUBBARD CTY..


BELTRAMI CO.
FERN
ROCKWOOD
HELGA
FARDEN
LAKE HATTIE
SCHOOLCRAFT GAME REFUGE
SCHOOLCRAFT
GUTHRIE
HART LAKE
PAUL BUNYAN STATE FOREST
LAKE ALICE
ITASCA STATE PARK
HENDRICKSON
LAKEPORT
LAKE GEORGE
LEECH LAKE INDIAN RESERVATION
PAUL BUNYAN GAME REFUGE
CLOVER
THORPE
LAKE EMMA
AKELEY
ARAGO
MANTRAP
TODD
HENRIETTA
WHITE OAK
NEVIS
LEECH LAKE
Kabekona Lake
Plantagenet Lake
Garfield Lake
Fish Hook Lake
Big Sand Lake
Potato Lake
PARK RAPIDS
LAPORTE
Emmaville
Guthrie

BECKER CTY



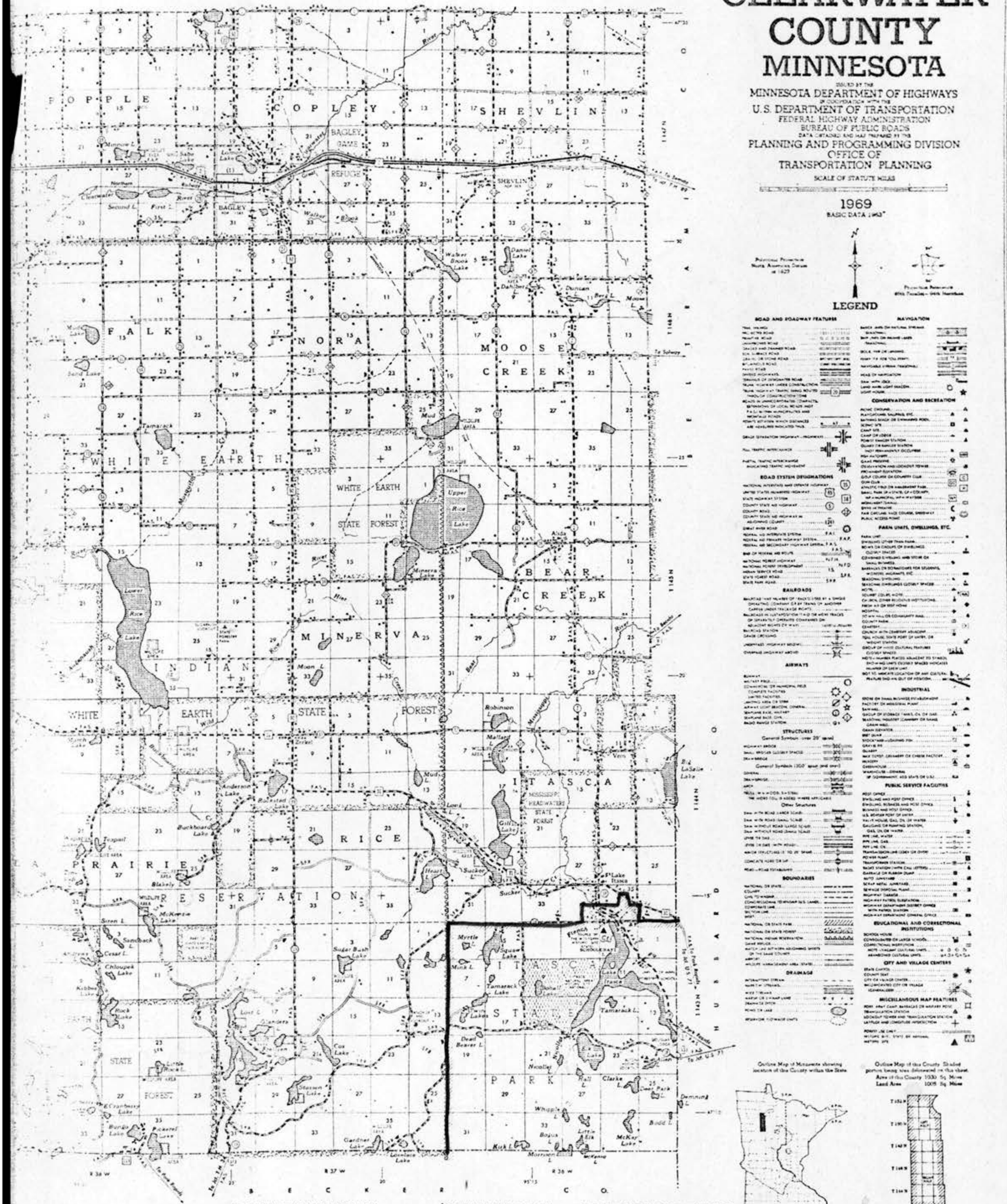
MAHNOMEN CO
CLEARWATER CO
MAPLE GROVE
WHITE EARTH
ROUND LAKE
SAVANNAH
ROUND LAKE
WHITE EARTH
WHITE EARTH STATE FOREST
SUGAR BUSH
TAMARAC NATIONAL WILDLIFE REFUGE
INDIAN RESERVATION
PINE POINT
TWO INLETS
TWO INLETS STATE FOREST
CARSONVILLE
OSAGE
GRAND PARK
SHELL LAKE
SMOKEY HILLS
SMOKEY HILLS STATE FOREST
HEIGHT OF LAND
WOLF LAKE
GREEN VALLEY
TOAD LAKE
SILVER LEAF
EVERGREEN
SPRUCE GROVE
RUNEBERG
OTTER TAIL CO.
R 39 W
R 38 W
R 37 W
R 36 W
Shell Lake
Round Lake
Height of Land Lake
Wolf Lake
Toad Lake
Big Rush Lake

GENERAL HIGHWAY MAP
CLEARWATER COUNTY
MINNESOTA

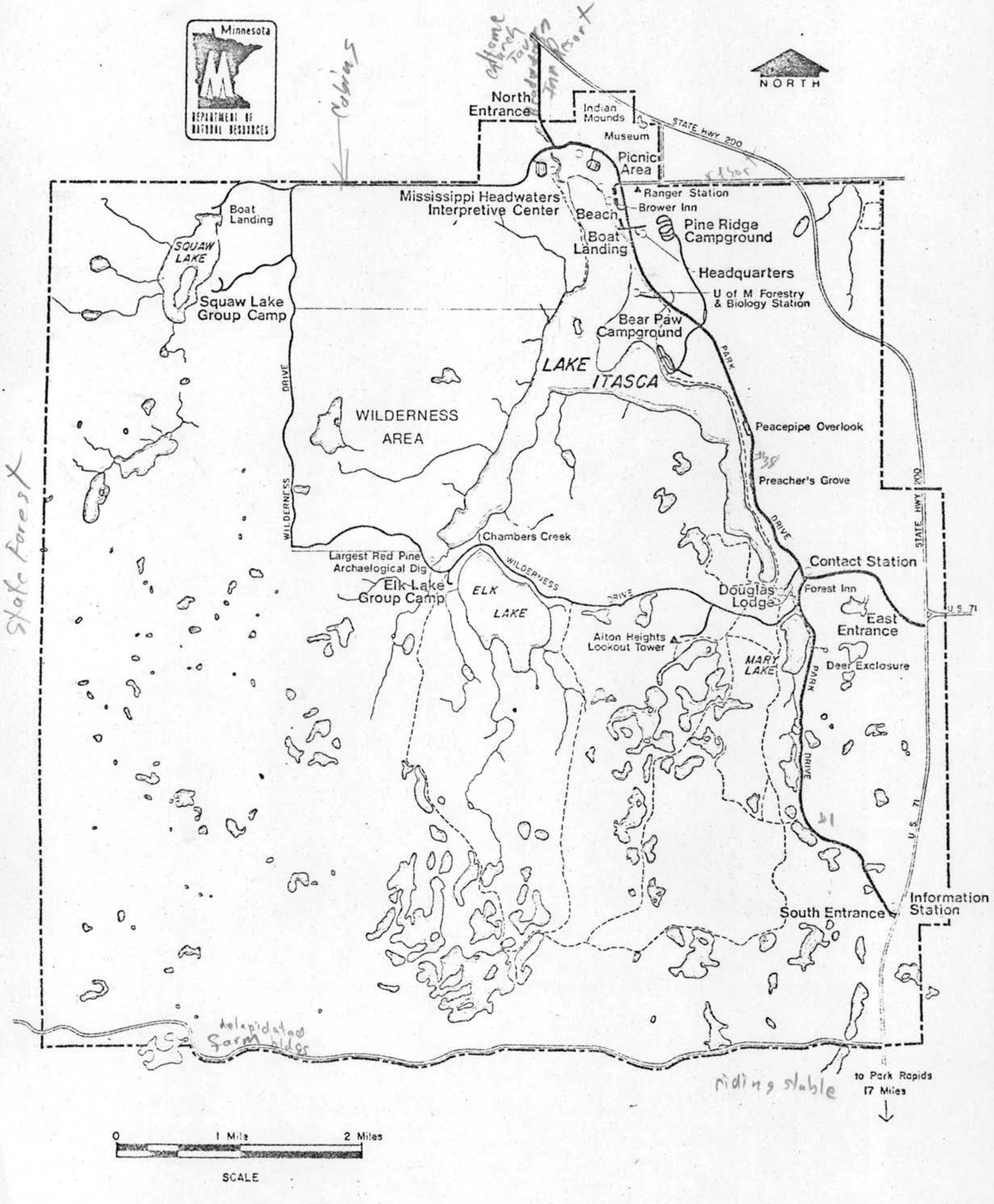
ISSUED BY THE
MINNESOTA DEPARTMENT OF HIGHWAYS
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
DATA OBTAINED AND MAP PREPARED BY THE
PLANNING AND PROGRAMMING DIVISION
OFFICE OF
TRANSPORTATION PLANNING

SCALE OF STATUTE MILES

1969



Itasca State Park



WELCOME TO
ITASCA STATE PARK

Besides being the headwaters of the Mississippi River, and the largest and most popular park in Minnesota, Itasca has a special quality accented by magnificent towering pines and a myriad of 100 lakes.

Within the park boundary you can camp, canoe, or hike more than 20 miles of foot trails. Itasca has two experienced naturalists that can help you discover rare orchids in blossom, 146 species of birds including the endangered Bald Eagle, or the footsteps of fur traders and explorers.

And so, Itasca State Park, preserved by the devoted efforts of Jacob V. Brower and other far-sighted people, is today awakening a new understanding of man's relationship to his environment.

PARK MANNERS

Read and heed all posted rules and park signs.

Help protect your park. Preservation is everyone's business.

Take pictures and memories; leave only footprints. Don't dig trenches, pick plants, molest animals, or scavenge dead wood — it's needed for the soil environment.

Be considerate of others. Maintaining a clean, quiet park is best for everybody.

The use of firearms, explosives, air guns, slingshots, traps, seines, nets, bows and arrows and all other weapons is prohibited.

Pets are prohibited from all park areas except when restrained on a leash measuring six feet or less. Pets may not enter buildings. Horses are permitted only on trails specifically designated for such use.

The park is closed from 10:00 p.m. until 8:00 a.m. of the following day, except in campgrounds or in cabin areas. Loud noises or other disturbances are prohibited after 10:00 p.m.

Park permits are required for every vehicle and can be purchased at park headquarters. Permit prices are $5.00 per car for Annual Permit; $1.50 for Daily Permit.

Motor bikes and other licensed vehicles are allowed only on the motor vehicle roads — not on the trails.

HOW TO GET THERE

Vehicle Permits Required
For Sale at Headquarters.

FACILITIES

Camping, Picnicking and Hiking

Campsites are provided with water and toilet facilities. Tables and parking areas are available for picnicking. Trails provide diverse opportunities to experience the park and participate in nature.

Water Sports

Where appropriate, boat launching and swimming facilities have been developed. Activities should be confined to designated areas. Fishing subject to state law.

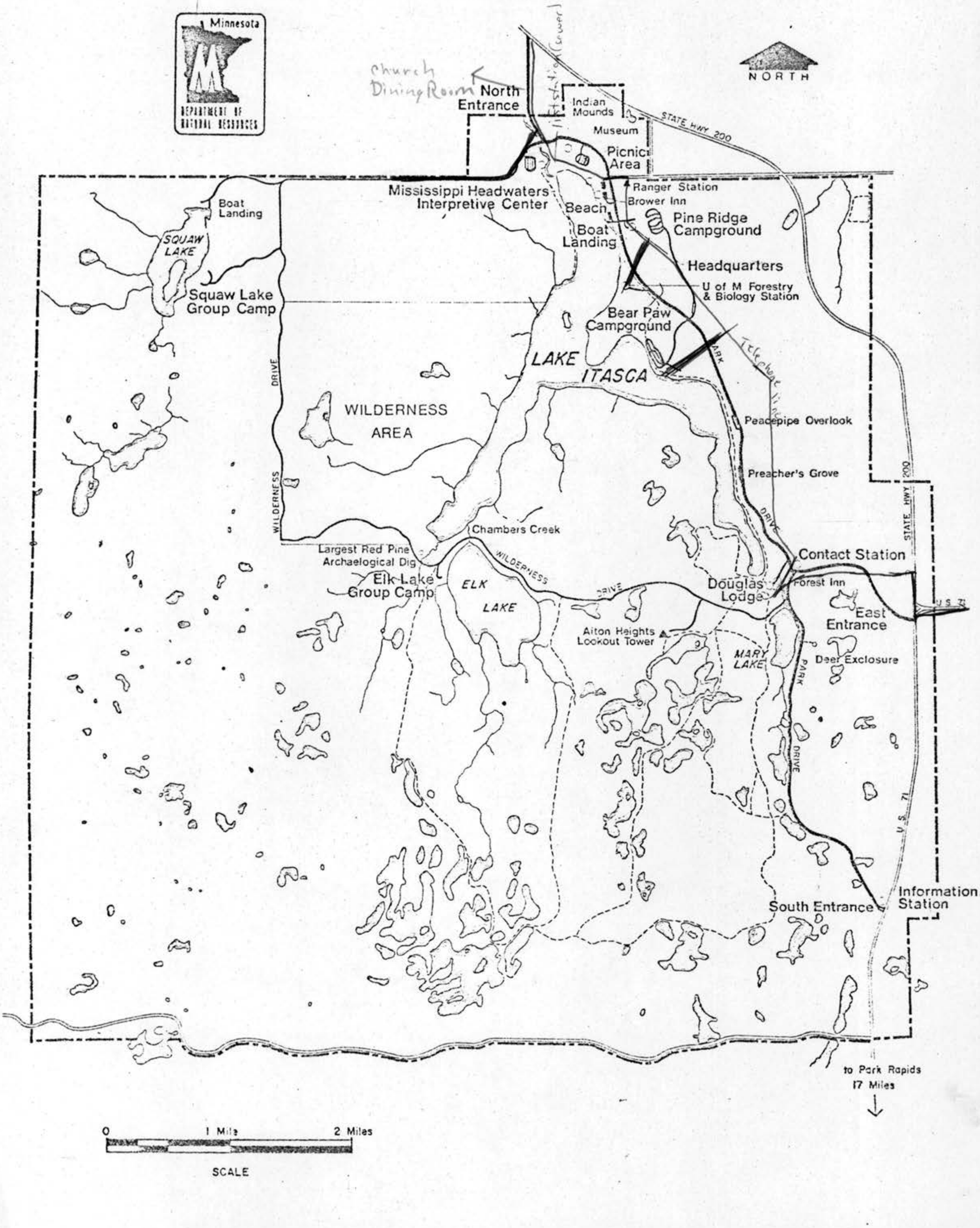
Winter Sports

Ski touring and showshoeing are encouraged in all state parks; snowmobiling is permitted in some parks only in designated areas and posted trails under conditions considered adequate for park protection by the park ranger or manager.

Environmental Education

Today, not only is our quality of life reduced but life itself is jeopardized. A new life style is called for, based upon enlightened ways of living in harmony with nature, with each other and our world. One way to begin a new way of thinking and of living is through environmental education. Schools and other groups are encouraged to use state parks for environmental education acitivities; park visitors can acquaint themselves with the natural uniqueness of the park by participating in the park naturalist's programs.

Itasca State Park



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LAKE ALICE 1973 T. 143 N.-R. 35 W.

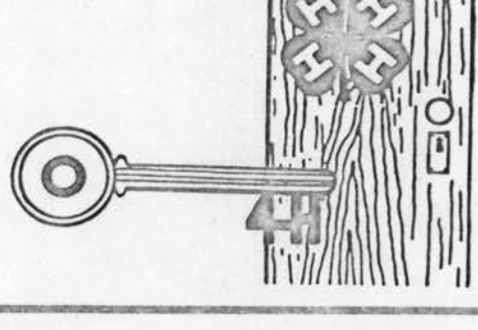
SEE PAGE 38

©1973 Rockford Map Publs, Inc.

SEE PAGE 28

Hubbard County, Minn.

YOUR KEY TO SUCCESS

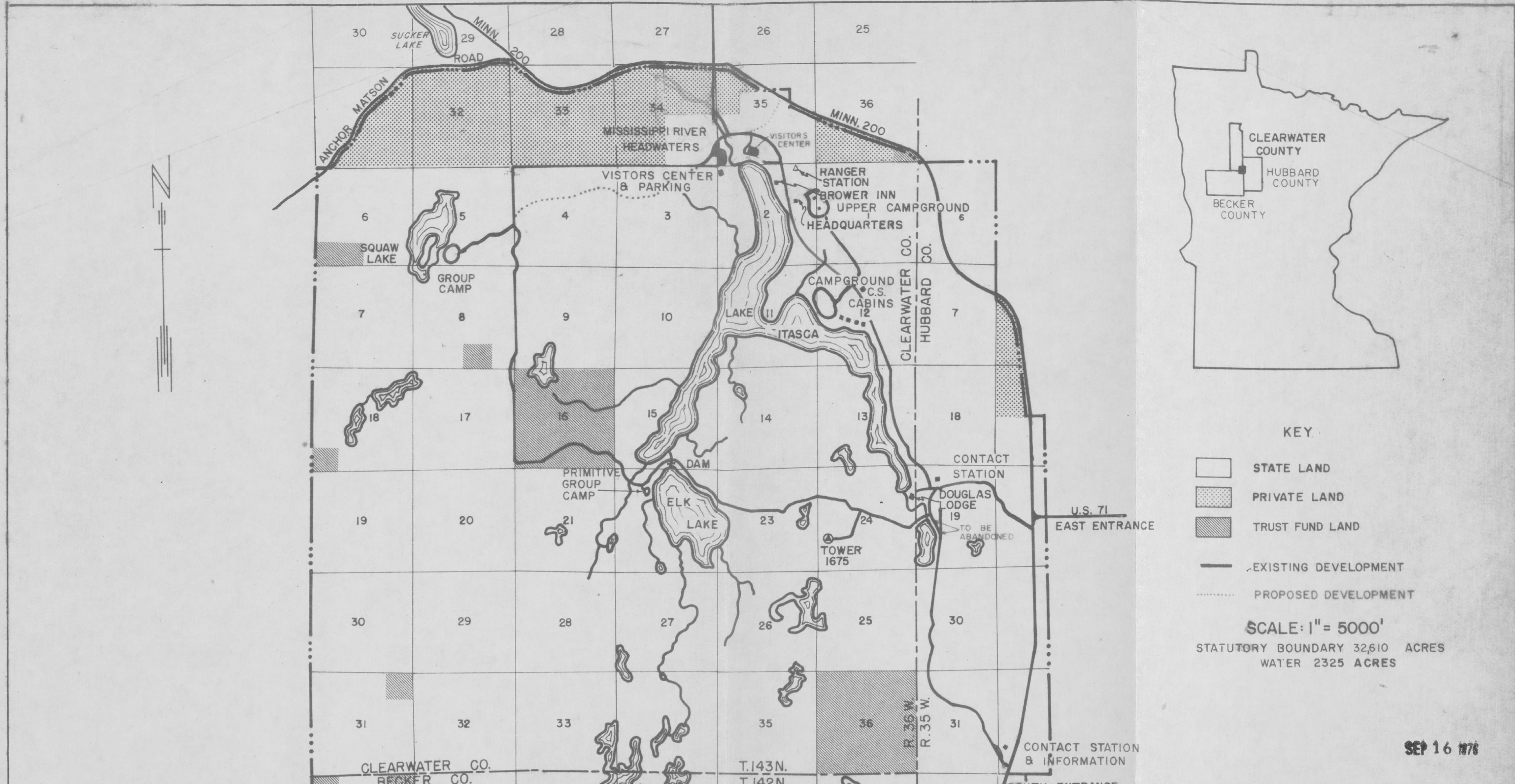


RECEIVED

FEB 9 1976

Dept. of Natural Resources
Div. of Parks & Recreation

1923



SEP 16 1976

MINNESOTA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF PARKS AND RECREATION
STATE PARK SITE

ITASCA STATE PARK

BECKER, CLEARWATER & HUBBARD CO'S.

	T. 142-144 N. | R. 35, 36 W.	5 TH P. M.
DRAWN JHP 12-10-62	BUREAU OF ENGINEERING	SURVEY
CHECKED HRP 12-10-62		DATUM
REVISED SVF 5-20-76	12-11-62 CHIEF ENGINEER	

Ownership Revision	REQ.	SHEET	FILE
	57 - 6	11	P.021.00.01

MINNESOTA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF PARKS AND RECREATION

STATE PARK SITE

ITASCA STATE PARK

BECKER, CLEARWATER & HUBBARD CO'S.

T. 142-144 N.	R. 35,36 W.	5 TH P. M.

DRAWN JHP 12-10-62	BUREAU OF ENGINEERING	SURVEY
CHECKED HRP 12-10-62		DATUM
REVISED LDS 9-25-75	12-11-62 CHIEF ENGINEER	

Ownership Revision	REQ.	SHEET	FILE
	57 - 6	11	P.021.00.01

CLEARWATER COUNTY

Parcel — ITASCA TOWNSHIP	TOWN	COUNTY	School District	
Section 31				
Helen Younk 117.13 ac NH E½SW¼	.70	16.40	29.07	#162
			~~T=46.28~~	
County Memorial Forest SE¼NE¼; W½NE¼; S½NW¼; SW¼; SE¼ 397 ac + 520 ac				
Section 32				
Peter + Patricia Smith N½NW¼ NH	.82	19.20	34.02	#162
Duane + Darlene Alberts 80 ac.			~~T=54.16~~	
State Tax Land NE¼ NE¼ 40 ac				
Section 33				
~~Alford and Dorothy Oirk NE¼NE¼~~	~~.26~~	~~6.00~~	~~10.19~~	~~#162~~
~~H 19 ac.~~			T ~~=16.45~~	
~~Stanley Shapiro E½NW¼NE¼ 16 ac~~	~~.20~~	~~4.62~~	~~8.19~~	~~#162~~
~~NH~~			~~T=13.04~~	
State Tax Land E½ SW¼NE¼				
Lorna Fitz NW¼SW¼; SE¼NE¼;	1.70	39.67	67.28	#162
NE¼NE¼ H 60 ac No home			~~T=108.90~~	
	3.22	75.27	130.37	

Parcel	TOWN	COUNTY	SCHOOL
Section 33 County Memorial Forest			
Ralph Prochazka W1/2NW1/4 H 80ac No home	.86	20.00	33.93 #162 T=54.92
Thomas + Suzanne Clawson NE1/4NE1/4 S of Hwy NH 1acre	.04	.86	1.53 #162 T=2.44
Baston + Alice Pheifer E1/2SE1/4; SW1/4SE1/4 120ac Bert's Cabins - Seasonal home	9.86	229.99	466.71 #162 T=708.06
	.39	9.15	15.50 T=25.10
Section 34			
Delores + Sibyl Noel NE1/4, NE1/4 HNA 21.91 ac Tavern	19.37	405.20	873.23 #162 T=1298.44
Edwin + Joyce Dahl NW1/4NE1/4 + W9.08ac NE1/4NE1/4 NH 39.08	.80	18.75	33.24 #162 T=52.92
George Reasbeck S1/2NE 1/4 16ac lying S of river Headwater's Inn: Seasonal Home HNA	1.85	43.14	92.99 #162 T=138.26
Richard Jennings W1/2NW1/4NE1/4; E3/4 NE1/4NW1/4 NH 38.26 ac	2.27	53.00	93.92 #162 T=149.54
	17.44	780.09	1617.05

Parcel	Town	County	School
Section 34			
County Memorial Forest S½NW¼			
Alfred & Dorothy Dick NE¼NW¼; part NW¼NW¼	2.96	69.04	117.06 #162
~~Home~~ H 48ac No home			T=189.50
C.J. Starbuck part SW¼NE¼ & part	5.50	128.30	276.50 #162
SE¼ NE¼ NHNA 34ac.			T=411.14
Berton & Alice Pheifer SW¼ H 34ac	1.30	30.25	53.60 #162
Bert's Cabins			T=85.34
State SE¼			
Church of St. Catherine NE¼NE¼ 3.80ac			
Gunnlauger Lee & Helen Thorwardson	3.65	82.17	183.40 #162
Home 1.44ac NENW H NA			T=269.76
C.J. Starbuck W corner of NE 5.5a	.19	4.39	7.78 #162
NH			T=12.38
State .48 ac			
SW¼NE¼; SE¼NW¼			
SW¼; SE¼			
	13.60	314.15	638.34

Parcel			Town	County	School
Section 35					
Alvin + Dorothy Katzenmeyer	H	235.5 ac	~~4.38~~ 1.86	~~102.20~~ 43.44	~~175.44~~ #162 74.56
(only 100 ac) farm + home					T = 282.68
Everett + Gudrun Strandjord	HNA	41.50	2.54	59.16	127.50
					T = 189.58
Section 36					
Gulbranson	NE 1/4; W 1/2 SE 1/4	240 ac	~~1.35~~ .22	~~31.14~~ 5.13	9.10 ~~80.13~~
(only 40 ac)		NH			T = 87.78
Carol Jean Auer	W 1/2 SW 1/4; SE 1/4 SW 1/4		.50 ~~.78~~	11.54 ~~18.23~~	20.45 ~~32.31~~ #162
(only 80 ac)		NH 120 ac			T = 51.44
Elsie McDonald	SW 1/4 SW 1/4	40 ac	6.11	142.40	306.89
		NA, NH			T = 456.32
HUBBARD COUNTY			.24	5.83	84.00
Lidia + Vern Miller			.46	1.09	15.76
		GRAND TOTALS	.70	6.92	99.76
BECKER COUNTY					
Gaartner		GRAND TOTALS	35.22	111.49	192.89
		GRAND TOTALS:	45.49	1431.18	2924.26
			11.23	261.67	538.50

ADMIN 1000

STATE OF MINNESOTA

Office Memorandum

DEPARTMENT Natural Resources

TO : Mr. Mal Berquist, Assistant Manager
Itasca State Park

DATE: 9/28/76

FROM : Jane Harper J.H.
Bureau of Planning

PHONE: 296-4807

SUBJECT: Itasca State Park Environmental Assessment

Could you please review this assessment and comment on anything that does not seem right to you. You don't have to be too thorough but at least look for any glowing errors that there might be. As soon as you have reviewed it, I will have a final copy typed and sent to the B.O.R. so that we can go ahead with land acquisition within the park.

Thanks for your help in this matter. Thanks also for taking the time to visit with me about the park. The information you gave me was very helpful.

I see no glowing error in your assessment of Itasca State Park.

Mel Bergquist

2/18/76

JUSTIFICATION FOR ITASCA STATE PARK EXPANSION

- The present statutory boundary is 30,365 acres.
- The proposed addition is 2,455 acres.
- Two known willing sellers covering approximately 80 acres.
- Tax forfeited and trust fund land 1,300 acres.
- Other private land 1,075 acres.

The purpose for the boundary expansion is twofold:

1) To have a single entrance on the north end of Itasca to better inform the park visitors coming in to the park as well as eliminate the upkeep and maintenance costs of maintaining extra roads, extra entrance and control points.

2) The two willing sellers have buildings which are old and in need of extensive repair and remodelling, and now would be a strategic time to purchase these tracts. It would also remove unsightly conditions, and the services that are provided by these two businesses would be shifted to the other business places nearby.

There is general citizen support for this boundary expansion since Itasca is the most important park in the system. This has been discussed extensively by the Itasca Park Advisory Group in the last two years, and they have passed resolutions encouraging the boundary expansion in these two portions on the north side of Itasca. See memo dated October 6, 1975.

During the week of February 9th, a double check was made with Aurel Ekvall, Chairman of the Itasca Citizen Advisory Group and Mr. Higden from Clearwater County also a member of the Advisory Committee. Mr. Higden stopped in on February 12 and looked at the maps and said the ideas for expansion looked good.

DESCRIPTION

Tract "A" - 40 acres - a small resort on the banks of the Mississippi River that would require extensive remodelling and updating to be utilized. A major problem would be handling sewage because it is within a few feet of the source of the Mississippi River. The ultimate utilization of the buildings would be to remove all of them and obliterate all signs of use. The bank would be restored by planting to its original shape and plant materials.

a. There is a strong possibility that the existing cabins along the Mississippi River just north of the park are contributing to some significant pollution problems on this portion of the river. The Pollution Control Agency has found a definite fecal coliform problem in this upper stretch of the river and there are few other possible point sources in this area. Health considerations alone would probably dictate removal of these cabins.

b. Access from Highway 200 to the river is poor and could be dangerous for canoeists. Expansion of the park boundary to the north could allow for a proper access for canoeists.

c. Wanagan Landing, the first campsite on the Mississippi headwaters canoe route, is about 6 miles downstream.

d. Along with some possible purchase of private landholdings further downstream, purchase of these private holdings north of the park will mean that most of the headwaters area will be under administration of either Division of Forestry, Division of Parks and Recreation, or the counties.

e. The headwaters portion of the Mississippi is the only section of the river qualifying for "Wild" classification under the National Wild and Scenic Rivers System. The first draft report by the B.O.R., however, is recommending <u>state</u> administration of this part of the river.

Tract "B" - A general purpose store "Trading Post" that is in an old building and a small campground operation - The road going on two sides of the property would be vacated and all the facilities would be removed.

Tract "C" - Unoccupied trust fund and tax forfeited land - approximately 1,300 acres.

Tract "D" - Mostly open hay land - could remain as is until he is ready to sell or a "lease back" could be made with existing farmer. The main purpose is to keep it from being developed or subdivided.

Tract "E" - Bert's cabins - could remain as is until he is ready to sell or retire. In the long run, purchase of this tract would eliminate the need to realign the road to separate the park traffic from the private destination whose only access is through the park .

Tracts "F, G, H, I, J, K, L" - Private land that could remain as is until they are up for sale. Principle purpose is to prevent subdivisions and non-compatible land use along the edge of the park. Special concern is along the Mississippi River, the most likely.

Tract #	OWNER	Relocation	Acres	
4	Albert Gartner	No	202	Last parcel within original boundaries. $60,600 E½SE, SWSE Sec. 5 N½NE + NENW Sec 8 north of hwy 113 + N½NW Sec. 9 North of hwy 113
12	C.E. McDONALD	Yes (10,000) Trading post (store + living quarters) trailer court w/sewer + water and a couple cabins. $50,000	40	SW¼, SW¼ Sec. 36 Retired. Acquisition will improve control and simplify administration of the park, Subject to added development + improvement if not purchased.
13	Ken Peterson	Yes (5000) $50,000	34+	S½NE¼ North + east of river. Sec. 34 T144 R36 Needed for development
15	Gary + Karen Miller	Yes (500 Cabin) $10,000	17	SE¼ NW¼ Sec. 17 T143 R35 To prevent Possible building on site.
16	Dorothy + Alvin Kutzenmeyer	No $80,000	160	W½, NW¼; NW¼ NE¼; NE¼ Sec. 35 T144 R36 Acquisition will assure that no subdivision or incompatible development occurs.

Tract	~~Owner~~	Acres	Est. Cost	
4	Andrew Gartner	202	$100,000	(Sect. 5 T142N

~~Addition 2455 acres~~
~~2 known willing sellers —~~
~~Tract A, B~~

~~Peter~~

17 Sibyl + Gerald Noel Yes (5000) 19.5 NE 1/4, NE 1/4 Sec. 34
$50,000 Liquor store is an incompatible use.

Others: Jennings
Dahl
Reisbeck
Kitzenmeyer
Aven
Guld~~[illegible]~~ranson
Miller
Miller

Mal Bergquist

~~Cty State aid Parkway runs through park~~

~~Clearwater #38~~

~~Hubbard -~~

parcels of land ___ McDonald & Peterson most important

relocations ___ McDonald, trailer, Bert

businesses Bert's cabins, McDonald's resort, Tavern, ~~campground~~ Headwaters Inn

farms |

seasonal relocations Peterson, Reisbeck

~~Facilities to be developed~~

~~- North entrance~~

~~Water quality~~

~~Quality of underground H_2O (adequate supply?)~~

~~Plans to close east entrances (abandonment of roads)~~

Utilities

~~- Check on above ground lines~~

~~- Any power lines?~~

Land use near the park Cty land

- Development pressure? Little development pressure

New addition

What & how much
- Agriculture ___
- Commercial ___ resort,
- Industry ___

Alternatives to project

~~Need for campsites + cabins — no expansion - private campgrounds~~
~~Redo N. Entrance to look like park entrance~~
~~Close east entrance + south entrance (Buy out resort + close roads~~
~~McDonald's property from east~~ ~~from N~~

Anchor Matson Road

Utilities - good wells (100'-150') Headwtrs PineRdg Douglas Lodge
Good quality - checked every spring Hedqtrs BearPaw Squaw Lake

Sewage system - holding pond for north end
Douglas Lodge will tie in to North w/lift stations
Has own filtration plant now
Phones: switchboard to cover most shops } underground
5 public payphones

Electricity: part of lines underground, power lines under

Gaatner ~~- farm, estate, no one on now~~

~~Nolke~~

No reason to expand west or south - only brush + little farmland

Land East of hwy purchased within last 10 yrs for aesthetic purposes + to stop development.

Entrance road - more room, new entrance bldg.

~~farm Kasenmeyer small grains~~

~~hay~~

cy

~~Road resurfaced summer 1976~~

Prepared by the Division of Parks and Recreation
Minnesota Department of Natural Resources
July 12, 1976

PROFILE

ITASCA STATE PARK

HUBBARD, CLEARWATER & BECKER COUNTIES

Established:	1891
Total Authorized Land Area:	32,820 Acres
Total Lands Acquired to Date:	30,163 Acres
Balance of Land to be Acquired:	1,357 Acres
Land Cost to Date:	$1,220,240.00

Land Acquisition: The most recent boundary expansion added 2,455 acres, as passed by the 1976 Legislature.

COMMENTS: Itasca State Park was the first major State Park established in Minnesota. The area embraces the watershed of Lake Itasca which is the source of the Mississippi River. This area was the objective of a number of historic exploratory expeditions finally proven and determined by Henry Schoolcraft in 1832. A State Forestry School and Biological Station is operated by the University of Minnesota for summer school students. It provides housing units, laboratories, arboretum and recreational facilities.

Characteristics: Large stands of virgin Norway and White Pine. Undulating glacial moraine dotted with lakes. A natural habitat for deer, which is estimated at present to be approximately 300. Many other species of animal and bird life native to the northwoods from the small ground squirrel and chickadee to the lordly moose and eagle inhabit the park.

Present Facilities: Douglas Lodge, a dignified hotel and cabin development and Forest Inn, a tourist campground, group camp, picnic grounds, cabins, boats, bait, foot trails, tables, benches, fireplaces, restrooms, museum of natural history, visitor center, lookout towers, bathing beaches and trading post.

Activities:	Lake and stream fishing, nature study, hiking, boating, canoeing and launch excursions; naturalists conducted lectures, hikes and tours.

ITASCA STATE PARK

ATTENDANCE AND USE (CALENDAR YEAR)

	1972	1973	1974	1975
Cabins and Rooms	10,958	10,974	10,018	11,179
Organized Youth Camp	2,754	3,864	3,910	2,475
Campgrounds	84,227	92,091	88,529	88,047
Day Visitors	1,061,017	1,048,236	1,039,574	901,775
TOTAL	1,158,956	1,155,165	1,142,031	1,003,476

REVENUES (CALENDAR YEAR)

	1972	1973	1974	1975
Motor Vehicle Permits	$ 61,435.00	$ 58,440.00	$ 55,542.00	$ 57,098.00
Campgrounds	38,579.00	54,481.25	54,249.50	54,722.50
Meals and Refectory	238,450.00	248,624.06	275,396.32	310,851.37
Cabins and Rooms	51,845.00	59,534.39	61,434.61	62,779.55
Boats	6,303.00	6,631.75	5,814.50	7,870.00
Sales Tax	10,439.89	11,225.88	12,092.29	13,176.31
Other	4,160.51	7,091.10	8,605.61	9,986.56
TOTAL	$411,213.30	$446,028.43	$473,134.83	$516,484.29

OPERATING BUDGET (FISCAL YEAR)

	1972	1973	1974	1975
Salaries & Other Expenses	$253,003.00	$278,483.00	$310,483.00	$346,593.00

	School		Town	County
				[illegible]
Bear Creek	#162	4,194.05	504.00	2,372.00
		19,001.41	1,922.33	9,047.07
Clover	#161	3,994.57	735.92	2,746.03
Copley	#162	61,364.41	2,311.67	30,190.42
Dudley	#161	20,506.82	1,826.76	11,694.83
	#162	34,044.06	2,544.39	16,289.13
Eddy	#158	510.61	67.96	235.73
	#161	10,193.27	2,020.22	7,007.72
	#162	5,253.69	859.16	2,980.29
Falk	#162	6,597.81	941.91	3,607.53
	#162	8,627.70	1,284.84	4,920.77
Greenwood	#158	8,162.37	568.98	3,687.82
	#161	5,042.29	531.78	3,446.68
Haugaard	#158	16,263.41	2,802.37	7,327.41
Holst	#161	32,345.06	6,933.48	18,536.59
	#162	10,430.10	2,023.77	8,410.82
Itasca	#162	32,706.22	703.96	16,447.69
	#162	21.75	.53	12.27
LaPrairie	#162	11,149.08	454.76	5,929.09
Leon	#158	3,644.29	159.25	1,469.83
	#161	282,039.01	16,874.24	157,147.94
Minerva	#162	16074.94	1237.66	8979.95
Moose Creek	#162	16,370.73	1,416.18	5703.73
				326775.6
	#162	225,835.95	Itasca 704.49	326,775.64

		School	Town	County
				876 8/76
Nora	#162	31,040.89	5,086.26	16,753.26
Pine Island	#158	137,398.96	7,393.10	58,173.64
	#161	7,805.26	774.50	57,779.88
Popple	#162	23,615.29	965.19	12,608.40
Rice	#162	10,692.46	1,200.24	5,962.88
Shevlin	#162	132,214.10	5,944.14	63,144.14
Sinclair	#161	16,670.32	1,700.63	11,160.98
Unorg.	#162	11,211.48	1,568.80	5,883.86
Winsor	#158	34,177.86	3,202.46	14,422.17
CITIES				
Bagley	#162	115,816.35	46,924.39	63,771.25
Clearbrook	#161	32,522.50	12,040.72	17,560.24
Gonvick	#158	30,429.26	7,997.97	11,736.38
Leonard	#161	2,974.88	622.07	1,624.85
Shevlin	#162	9,066.22	999.66	4,242.70

#162 = 333,656.79 279,777.50

Mobile Homes	School		Town	County
Bear Creek	#162	139.20	13.73	64.59
Clover	#161	208.66	30.18	112.63
Copley	#162	1571.39	55.83	729.16
Dudley	#161	99.44	8.38	83.67
	#162	264.23	19.15	177.60
Eddy	#161	148.17	23.06	79.98
	#162	335.54	44.89	158.70
Falk	#162	559.70	67.80	289.71
Greenwood	#158	152.75	9.03	58.56
	#161	143.57	11.96	77.50
Haugaard	#158	148.59	21.79	86.96
Holst	#161	220.32	14.48	118.92
	#162	228.42	39.65	108.99
Itasca	#162	90.07	1.79	41.79
La Prairie	#162	128.56	4.57	89.66
Leon	#161	437.88	25.61	278.36
Minerva	#162	609.50	38.98	282.82
Moose Creek	#162	590.93	44.62	274.71
Nora	#162	753.55	106.15	349.67
Pine Lake	#158	308.49	15.85	118.27
	#161	5.23	.38	2.82
Popple	#162	956.08	33.97	443.64
Rice	#162	346.35	32.25	160.71
Shevlin	#162	668.96	29.23	340.41
Sinclair	#161	298.57	24.56	161.16
	#162	7242.48	Itasca = 1.79	3727.49

Mobile Homes		School	Town	County
Wirisa	#158	406.68	34.62	155.91
Bagley City	#162	3495.55	1415.85	1622.02
Clearbrook	#161	671.02	248.37	362.21
Gonvick	#158	1332.69	348.19	510.93
Shevlin	#162	126.48	13.80	58.69
		#162=3622.03		~~3709.76~~
				2709.76
Grand Total		#162=570,357.25	$706.28	$612,990.39

STATE OF MINNESOTA

Office Memorandum

DEPARTMENT Natural Resources

TO : All recipients of Environmental Assessment Worksheet for Itasca State Park Pine Restoration Project

DATE: September 14, 1977

FROM : Vonny Hagen
Environmental Review Coordinator

PHONE: [redacted]

SUBJECT: Clarification of Project Schedule, Itasca Pine Restoration Project

A few days ago you received an Environmental Assessment Worksheet for the Itasca State Park Pine Restoration Project. The EAW indicated that the project was to be implemented over a 15 year period.

Please be advised that this EAW applies to only phases 2 and 3 of the project running through the summer of 1979. Subsequent phases of the project will be proceded by additional EAWs or will be included in a park management plan, pursuant to Minnesota Rules MEQC 24 B. 1. z.

VH:kw:dh

STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES
CENTENNIAL OFFICE BUILDING • ST. PAUL, MINNESOTA • 55155

DNR INFORMATION
(612) 296-6157

September 12, 1977

DO NOT REMOVE
OFFICE COPY
Minnesota Environmental Quality Council

TO : EQB Distribution List

FROM : Vonny Hagen,
Environmental Review Coordinator

SUBJECT: Environmental Assessment Worksheet,
Itasca Park Pine Restoration Project

Attached is an Environmental Assessment Worksheet on the Itasca State Park Pine Restoration Project, submitted pursuant to EQB rules MEQB 24 B.1.2.

VH:mh

Attachment

— noticed EQB Monitor
Sept 19, 1977
— no change

RECEIVED
FEB 7 1978
Dept. of Natural Resources
Div. of Parks & Recreation

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
SEP 1977
RECEIVED
STATE PLANNING
AGENCY

AN EQUAL OPPORTUNITY EMPLOYER

RECEIVED
FEB 7 1979
Dept. of Natural Resources
Div. of Parks & Recreation

MINNESOTA ENVIRONMENTAL QUALITY COUNCIL
ENVIRONMENTAL ASSESSMENT WORKSHEET (EAW)
AND NOTICE OF FINDINGS

DO NOT WRITE IN THIS SPACE
E.R. # ________________

NOTE: The purpose of the Environmental Assessment Worksheet (EAW) is to provide information on a project so that one can assess rapidly whether or not the project requires an Environmental Impact Statement. Attach additional pages, charts, maps, etc, as needed to answer these questions. Your answers should be as specific as possible. Indicate which answers are estimated.

I. SUMMARY

A. ACTIVITY FINDING BY RESPONSIBLE AGENCY (PERSON)

[X] Negative Declaration (No EIS) [ ] EIS Preparation Notice (EIS Required)

B. ACTIVITY IDENTIFICATION

1. Project name or title Itasca State Park Pine Restoration

2. Project proposer(s) Dept. of Natural Resources - Parks and Recreation

Address 196 Centennial Office Building

Telephone Number and Area Code (612) 296-4781

3. Responsible Agency or Person Dept. of Natural Resources

Address 196 Centennial Office Building

Person in Responsible Agency (Person) to contact for further information on this EAW: Frank Knoke Telephone 296-4781

4. This EAW and other supporting documentation are available for public inspection and/or copying at: Location 196 Centennial Office Building

Telephone 296-4781 Hours 8:00 - 4:30

5. Reason for EAW Preparation

[X] Mandatory Category -cite MEQC Rule number(s) 24-B-1-Z [ ] Petition [ ] Other

C. ACTIVITY DESCRIPTION SUMMARY

1. Project location

County Clearwater and Becker City/Township name Savanna and unorganized

Township number ________ (North), Range Number ____ East or West (circle one),

Section number(s) ________ Street address (if in city) or legal description:

T142N, R36W, Section 5, 6 & 8
T143N, R36W, Section 17, 18, 19, 20, 29, 30, 31 & 32

2. Type and scope of proposed project: Removal of 3474.83 acres of hardwood timber over a 15 year period and replanting red, white and jack pine.

3. Estimated starting date (month/year) December 1977

4. Estimated completion date (month/year) December 1992

5. Estimated construction cost NA

6. List any federal funding involved and known permits or approvals needed from each unit of government and status of each:

Unit of Government (federal, state, regional, local)	Name or Type of Permit/Approval or Federal Funding	Status
Minnesota DNR	Informal Timber Sale Permit	To be applied for as needed.
Minnesota DNR & PCA	Burning Permit	To be applied for as needed.

7. If federal permits, funding or approvals are involved, will a federal EIS be prepared under the National Environmental Policy Act? X NO ___ YES ___ UNKNOWN

II. ACTIVITY DESCRIPTION

A. Include the following maps or drawings:
1. A map showing the regional location of the project.
2. An original 8½ x 11 section of a U.S.G.S. 7½ minute, 1:24,000 scale map with the activity or project area boundaries and site layout delineated. Indicate quadrangle sheet name. (Original U.S.G.S. sheet must be maintained by Responsible Agency; legible copies may be supplied to other EAW distribution points.)
3. A sketch map of the site showing location of structures and including significant natural features (water bodies, roads, etc).
4. Current photos of the site must be maintained by the Responsible Agency. Photos need not be sent to other distribution points.

B. Present land use.
1. Briefly describe the present use of the site and lands adjacent to the site.

The land is within Itasca State Park and adjacent to the White Earth State Forest.

2. Indicate the approximate acreages of the site that are:

a. Urban developed NA acres
b. Urban vacant NA acres
c. Rural developed NA acres
d. Rural vacant NA acres
e. Designated Recreation/Open Space 4649.34 acres
f. Wetlands (Type III, IV, V) 1110 acres
g. Shoreland NA acres
h. Floodplain NA acres
i. Cropland/Pasture land NA acres
j. Forested 3539.34 acres

3. List names and sizes of lakes, rivers and streams on or near the site, particularly lakes within 1,000 feet and rivers and streams within 300 feet. Twin Island Lake 71 acres
Twin Lake 89 acres
None of the other bodies of water in the project are listed in "An Inventory of Minnesota Lakes." Bulletin No. 25

C. Activity Description

1. Describe the proposed activity, including staging of development (if any), operational characteristics, and major types of equipment and/or processes to be used. Include data that would indicate the magnitude of the proposed activity (e.g. rate of production, number of customers, tons of raw materials, etc). This project is being conducted to reestablish the former pine stands in Itasca State Park. Man's activities such as logging and fire suppression in this area have eliminated pine regeneration. By removing the hardwood, control burning and replanting pine, these stands will once again occur. Commercial logging is the only economical means of removing the present hardwood stands. The logging will occur over a 15 year period with each year's cut to be between 169 and 297 acres (Table #1) Following the timber removal each treatment unit will be control burned and replanted to pine. Hand, mechanical and chemical means of reducing competition from deciduous vegetation will be considered for use if the control burns are not sufficiently effective.

2. Fill in the following where applicable:

a. Total project area 4649.34 acres or Length -- miles
b. Number of housing or recreational units --
c. Height of structures -- ft.
d. Number of parking spaces --
e. Amount of dredging -- cu. yd.
f. Liquid wastes requiring treatment -- gal/da
g. Size of marina and access channel (water area) -- sq. ft.
h. Vehicular traffic trips generated per day 15 ADT
i. Number of employees 8
j. Water supply needed -- gal/da Source: ________
k. Solid waste requiring disposal -- tons/yr
l. Commercial, retail or industrial floor space -- sq. ft.

III. ASSESSMENT OF POTENTIAL ENVIRONMENTAL IMPACT

A. SOILS AND TOPOGRAPHY

1. Will the project be built in an area with slopes currently exceeding 12%? ___No X Yes

2. Are there other geologically unstable areas involved in the project, such as fault zones, shrink-swell soils, peatlands, or sinkholes? ___NO X YES

3. If yes on 1 or 2, describe slope conditions or unstable area and any measures to be used to reduce potential adverse impacts.

On slopes greater than 25% no mechanical equipment will be used. The slopes will be replanted to pine.

The small peat areas in the project area will not be logged. There will be no impact on them from this project.

4. Indicate suitability of site soils for foundations, individual septic systems, and ditching, if these are included in the project.

NA

5. Estimate the total amount of grading and filling which will be done:
_____ cu. yd. grading _____ cu. yd. filling
What percent of the site will be so altered? NA %

6. What will be the maximum finished slopes? NA %

7. What steps will be taken to minimize soil erosion during and after construction?

NA

B. VEGETATION

1. Approximately what percent of the site is in each of the following vegetative types:

Woodland	77 %	Cropland/ Pasture	NA %
Brush or shrubs	NA %	Marsh	23 %
Grass or herbaceous	NA %	Other (Specify)	NA %

2. How many acres of forest or woodland will be cleared, if any? 3474.83 acres

3. Are there any rare or endangered plant species or areas of unique botanical or biological significance on the site? (See DNR publication The Uncommon Ones.) ___ NO X YES
If yes, list the species or area and indicate any measures to be used to reduce potential adverse impact. Areas where Lady's Slipper and other orchids are found have been set aside as sensitive areas and no logging will occur in them - Lady's Slipper and other orchids. A 50 to 200 foot buffer will be established around these areas where no action will be taken.

C. FISH AND WILDLIFE

1. Are there any designated federal, state or local wildlife or fish management areas or sanctuaries near or adjacent to the site? ___ NO X YES

2. Are there any known rare or endangered species of fish and wildlife on or near the site? (See DNR publication The Uncommon Ones.) ___ NO X YES

3. Will the project alter or eliminate wildlife or fish habitat? ___ NO X YES

4. If yes on any of questions 1-3, list the area, species or habitat, and indicate any measures to be used to reduce potential adverse impact on them.

Page 1 of Addendum

D. HYDROLOGY

1. Will the project include any of the following: If yes, describe type of work and mitigative measures to reduce adverse impacts.

	NO	YES
a. Drainage or alteration of any lake, pond, marsh, lowland or groundwater supply	X	
b. Shore protection works, dams, or dikes	X	
c. Dredging or filling operations	X	
d. Channel modifications or diversions	X	
e. Appropriation of ground and/or surface water	X	
f. Other changes in the course, current or cross-section of water bodies on or near the site	X	

2. What percent of the area will be converted to new impervious surface? 0 %

3. What measures will be taken to reduce the volume of surface water run-off and/or treat it to reduce pollutants (sediment, oil, gas, etc.)?
   The Squaw Lake study area has the similar topography and soils as the project area. Based on an unpublished study by William Patterson (University of Minnesota, College of Forestry) it is not felt that any special mitigating measures are necessary for sediment run-off from this project. In the study Patterson found no detectable impact on water quality from a two hundred acre cut and burn at Squaw Lake, two miles north of the project.

4. Will there be encroachment into the regional (100 year) floodplain by new fill or structures? X NO ____ YES

   If yes, does it conform to the local floodplain ordinance? ____ NO ____ YES

5. What is the approximate minimum depth to groundwater on the site? 0 feet

E. WATER QUALITY

1. Will there be a discharge of process or cooling water, sanitary sewage or other waste waters to any water body or to groundwater? X NO ____ YES
   If yes, specify the volume, the concentration of pollutants and the water body receiving the effluent.

2. If discharge of waste water to the municipal treatment system is planned, identify any toxic, corrosive or unusual pollutants in the wastewater.

   NA

3. Will any sludges be generated by the proposed project? X NO ____ YES
   If yes, specify the expected volume, chemical composition and method of disposal.

4. What measures will be used to minimize the volumes or impacts identified in questions 1-3?

NA

5. If the project is or includes a landfill, attach information on soil profile, depth to water table, and proposed depth of disposal.

F. AIR QUALITY AND NOISE

NA

1. Will the activity cause the emission of any gases and/or particulates into the atmosphere? ____NO __X__YES
If yes, specify the type and origin of these emissions, indicate any emission control devices or measures to be used, and specify the approximate amounts for each emission (at the source) both with and without the emission control measures or devices. These burns are of a small size and will not have any significant impact on the air quality. Gases and particulates will be released during control burns.

There will be emission of exhaust gases from chain saws and logging equipment. The amount of exhaust from this equipment will not require any special controls.

2. Will noise or vibration be generated by construction and/or operation of the project? ____NO __X__YES
If yes, describe the noise source(s); specify decibel levels [dB(A)], and duration (hrs/da) for each and any mitigative measures to reduce the noise/vibration. Chain saws, skidders and trucks during daylight hours, Monday - Saturday. This area of the park is not presently used by park visitors so no mitigation will be required.

3. If yes on 1 or 2, specify whether any areas sensitive to noise or reduced air quality-(hospitals, elderly housing, wilderness, wildlife areas, residential developments, etc.) are in the affected area and give distance from source. The project is within Itasca State Park. There are no public use facilities within the project area. A park road, Wilderness Drive is adjacent to the NE corner and the project. The two spot trail on the north boundary of the project is a snowmobile trail.

G. LAND RESOURCE CONSERVATION, ENERGY

1. Is any of the site suitable for agricultural or forestry production or currently in such use? ____NO __X__YES
If yes, specify the acreage involved, type and volume of marketable crop or wood produced and the quality of the land for such use.
The project area is suitable for timber production but it is a park, by state law, and timber production for fiber is not a park goal.

2. Are there any known mineral or peat deposits on the site? ____NO __X__YES
If yes, specify the type of deposit and the acreage.
Small peat bogs are present throughout the project areas but are not large enough for commercial use. The project will not impact or impair these areas. The project is within a state park so no commercial use of these peat bogs is possible.

3. Will the project result in an increased energy demand? X NO ____ YES
Complete the following as applicable:

a. Energy requirements (oil, electricity, gas, coal, solar, etc.)

Type	Estimated Annual Requirement	Peak Demand (Hourly or Daily) Summer	Winter	Anticipated Supplier	Firm Contract or Interruptible Basis?

b. Estimate the capacity of all proposed on-site fuel storage.

NA

c. Estimate annual energy distribution for:

space heating NA % lighting NA %

air conditioning NA % processing NA %

ventilation NA %

d. Specify any major energy conservation systems and/or equipment incorporated into this project.

NA

e. What secondary energy use effects may result from this project (e.g. more or longer car trips, induced housing or businesses, etc)?

NA

H. OPEN SPACE/RECREATION

1. Are there any designated federal, state, county or local recreation or open space areas near the site (including wild and scenic rivers, trails, lake accesses)? ____ NO X YES
If yes, list areas by name and explain how each may be affected by the project. Indicate any measures to be used to reduce adverse impacts.
Itasca State Park This project will enhance the aesthetics of the park for future users. This park was established to conserve and perpetuate the pine stands. This project is being undertaken to fulfill this mandate. The short term impact on aesthetics may be negative depending on the individual park user.

H. TRANSPORTATION

1. Will the project affect any existing or proposed transportation systems (highway, railroad, water, airport, etc)? X NO ___ YES

   If yes, specify which part(s) of the system(s) will be affected. For these, specify existing use and capacities, average traffic speed and percentage of truck traffic (if highway); and indicate how they will be affected by the project (e.g. congestion, percentage of truck traffic, safety, increased traffic (ADT), access requirements).

   The truck traffic generated by this project will not be routed through the main use areas of the park.

2. Is mass transit available to the site? X NO ___ YES

3. What measures, including transit and paratransit services, are planned to reduce adverse impacts?

   NA

J. PLANNING, LAND USE, COMMUNITY SERVICES

1. Is the project consistent with local and/or regional comprehensive plans? ___ NO ___ YES

   If not, explain:

   NA

   If a zoning change or special use permit is necessary, indicate existing zoning and change requested.

2. Will the type or height of the project conflict with the character of the existing neighborhood? X NO ___ YES

   If yes, explain and describe any measures to be used to reduce conflicts.

3. How many employees will move into the area to be near the project? None
How much new housing will be needed? ~~None~~

4. Will the project induce development nearby--either support services or similar developments? No
If yes, explain type of development and specify any other counties and municipalities affected.

5. Is there sufficient capacity in the following public services to handle the project and any associated growth? NA

Public Service	Amount required for project	Sufficient capacity?
water	gal/da	
wastewater treatment	gal/da	
sewer	feet	
schools	pupils	
solid waste disposal	ton/mo	
streets	miles	
other (police, fire, etc)		

If current major public facilities are not adequate, do existing local plans call for expansion, or is expansion necessary strictly for this one project and its associated impacts?

NA

6. Is the project within a proposed or designated Critical Area or part of a Related Actions EIS or other environmentally sensitive plan or program reviewed by the EQC? X NO ___ YES
If yes, specify which area or plan.

7. Will the project involve the use, transportation, storage, release or disposal of potentially hazardous or toxic liquids, solids on gaseous substances such as pesticides, radioactive wastes, poisions, etc? ___ NO X YES
If yes, please specify the substance and rate of usage and any measures to be taken to minimize adverse environmental impacts from accidents.

Page 1 of Addendum

8. When the project has served its useful life, will retirement of the facility require special measures or plans? _____NO _____YES
If yes, specify:

NA

K. HISTORIC RESOURCES

1. Are there any structures on the site older than 50 years or on federal or state historical registers? __X__NO _____YES

2. Have any arrowheads, pottery or other evidence of prehistoric or early settlement been found on the site? __X__NO _____YES
Might any known archaeologic or paleontological sites be affected by the activity? __X__NO _____YES

3. List any site or structure identified in 1 and 2 and explain any impact on them.

L. OTHER ENVIRONMENTAL CONCERNS
Describe any other major environmental effects which may not have been identified in the previous sections.

IV. OTHER MITIGATIVE MEASURES
Briefly describe mitigative measures proposed to reduce or eliminate potential adverse impacts that have not been described before.

Logging Contract Regulations and Restrictions

Page 2 and 3 of Addendum

V. FINDINGS

The project is a private (   ) governmental (X) action. The Responsible Agency (Person), after consideration of the information in this EAW, and the factors in Minn. Reg. MEQC 25, makes the following findings.

1. The project is (   ) is not (X) a major action.
State reasons:

2. The project does (   ) does not (X) have the potential for significant environmental effects.
State reasons: Although there will be some immediate adverse impacts, these are excepted to be minor. An experimental cutting done in 1973 in the Squaw Lake area (on a larger area than any of the proposed cutting units) showed no significant adverse effects. The purpose of the project is to simulate the natural disturbance provided by lightning fires prior to the white man's influence. Disturbance is essential to the regeneration of the pine stands which are one of the primary attractions of Itasca State Park. Thus the temporary "adverse" effects are necessary to achieve the long-term beneficial effects.

3. (For private actions only.) The project is (   ) is not (   ) of more than local significance.
State Reasons:

IV. CONCLUSIONS AND CERTIFICATION

NOTE: A Negative Declaration or EIS Preparation Notice is not officially filed until the date of publication of the notice in the EQC Monitor section of the Minnesota State Register. Submittal of the EAW to the EQC constitutes a request for publication of notice in the EQC Monitor.

A. I, the undersigned, am either the authorized representative of the Responsible Agency or the Responsible Person identified below. Based on the above findings, the Responsible Agency (Person) makes the following conclusions. (Complete either 1 or 2).

1. X NEGATIVE DECLARATION NOTICE
No EIS is needed on this project, because the project is not a major action and/or does not have the potential for significant environmental effects and/or, for private actions only, the project is not of more than local significance.

2. ____ EIS PREPARATION NOTICE
An EIS will be prepared on this project because the project is a major action and has the potential for significant environmental effects. For private actions, the project is also of more than local significance.

a. The MEQC Rules provide that physical construction or operation of the project must stop when an EIS is required. In special circumstances, the MEQC can specifically authorize limited construction to begin or continue. If you feel there are special circumstances in this project, specify the extent of progress recommended and the reasons.

b. Date Draft EIS will be submitted: ______________________
(month) (day) (year)

(MEQC Rules require that the Draft EIS be submitted within 120 days of publication of the EIS Preparation Notice in the EQC Monitor. If special circumstances prevent compliance with this time limit, a written request for extension explaining the reasons for the request must be submitted to the EQC Chairman.)

c. The Draft EIS will be prepared by (list Responsible Agency(s) or Person(s)):

____

Milton Keene Signature

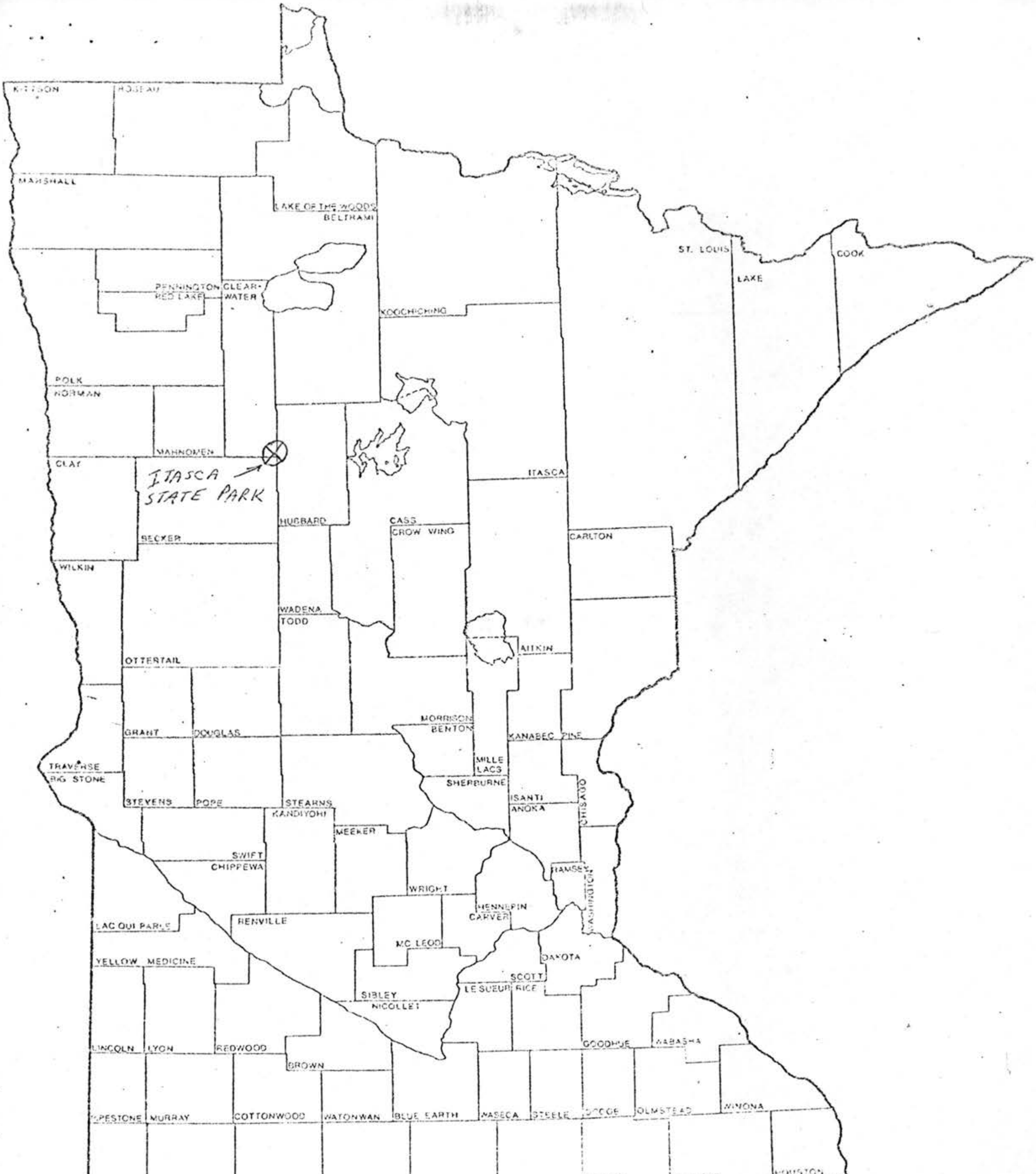
ACTING DIRECTOR Title

SEPT 12, 1977 Date

B. Attach an affidavit certifying the date that copies of this EAW were mailed to all points on the official EQC distribution list, to the city and county directly impacted, and to adjacent counties or municipalities likely to be directly impacted by the proposed action (refer to question III.J.4 on page 9 of the EAW). The affidavit need be attached only to the copy of the EAW which is sent to the EQC.

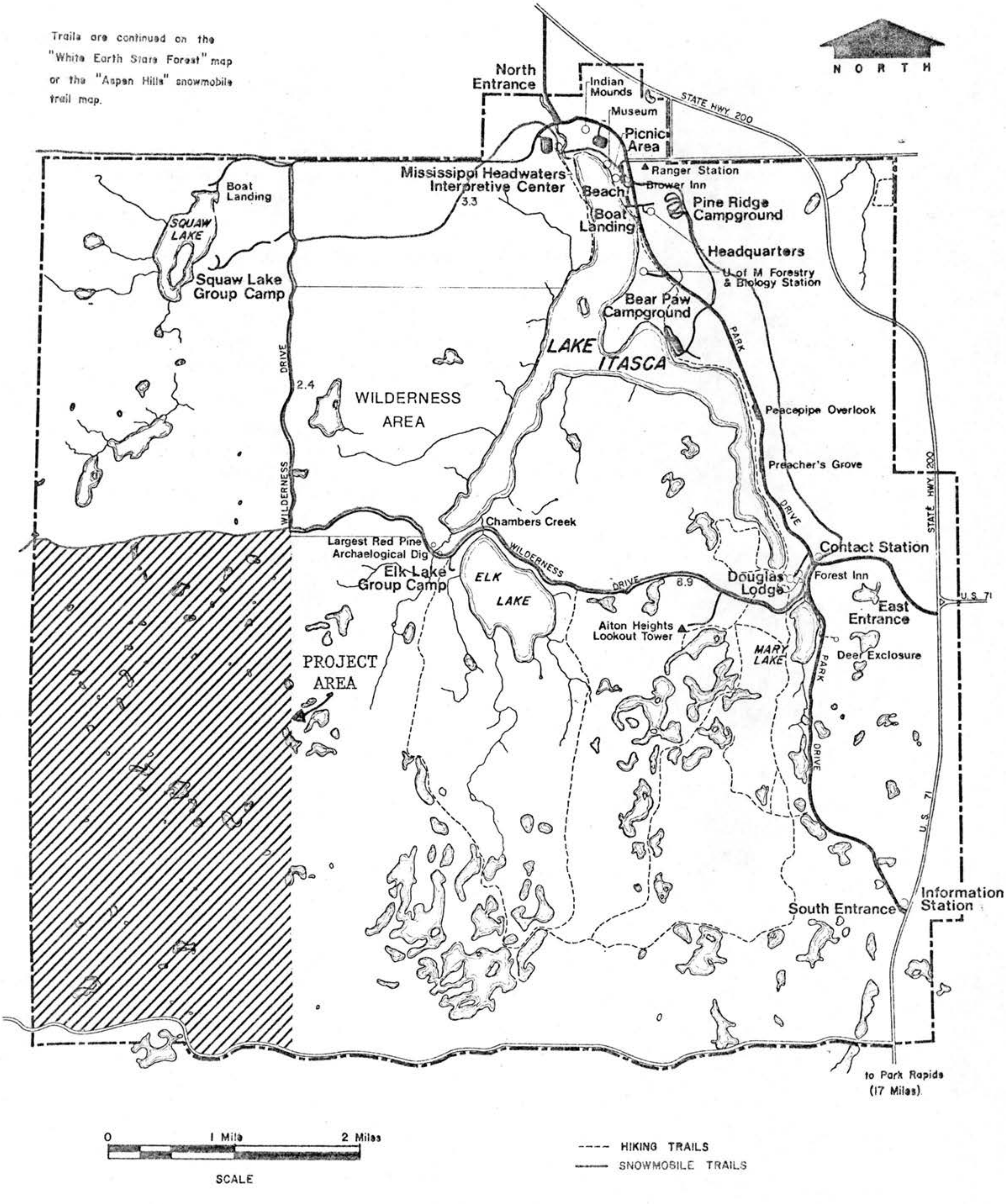
C. Billing procedures for EQC Monitor Publication

State agency ONLY: Attach to the EAW sent to the EQC a completed OSR 100 form (State Register General Order Form--available at Central Stores). For instructions, please contact your Agency's Liaison Officer to the State Register or the Office of the State Register--(612) 296-8239.


MARSHALL
LAKE OF THE WOODS
BELTRAMI
PENNINGTON
RED LAKE
CLEAR-
WATER
KOOCHICHING
ST. LOUIS
LAKE
COOK
POLK
NORMAN
MAHNOMEN
CLAY
ITASCA
STATE PARK
ITASCA
HUBBARD
CASS
CROW WING
BECKER
CARLTON
WILKIN
WADENA
TODD
AITKIN
OTTERTAIL
MORRISON
BENTON
KANABEC
PINE
GRANT
DOUGLAS
MILLE
LACS
TRAVERSE
BIG STONE
SHERBURNE
ISANTI
ANOKA
STEVENS
POPE
STEARNS
KANDIYOHI
CHISAGO
MEEKER
SWIFT
CHIPPEWA
RAMSEY
WRIGHT
HENNEPIN
CARVER
WASHINGTON
LAC QUI PARLE
RENVILLE
MC LEOD
DAKOTA
YELLOW MEDICINE
SCOTT
SIBLEY
LE SUEUR
RICE
NICOLLET
LINCOLN
LYON
REDWOOD
GOODHUE
WABASHA
BROWN
MURRAY
COTTONWOOD
WATONWAN
BLUE EARTH
WASECA
STEELE
OLMSTEAD
WINONA
ROCK
NOBLES
JACKSON
MARTIN
FARIBAULT
HOUSTON

Itasca State Park

Clearwater County



STATE PARK

*RULES AND REGULATIONS

PARK HOURS: Open each day from 8:00 A.M. to 10:00 P.M. However, snowmobiles may be used on designated trails which have adequate snow cover from daylight to 11:00. In overnight camping areas, it is unlawful to participate in any activity which disturbs other campers after 10:00 P.M.

SNOWMOBILES: Permitted only on designated areas and posted trails under the conditions of snow cover considered adequate for park protection by the park manager. Snowmobile operation is subject to all rules promulgated by the Commissioner of Natural Resources.

CROSS COUNTRY SKIING AND SNOWSHOEING: Ski touring and snowshoeing are allowed in all state parks and are not confined to marked trails.

PERSONAL BEHAVIOR: It is unlawful for any person to engage in any conduct tending to create a breach of the peace or to distrub or annoy other members of the public. It is unlawful to be intoxicated or consume intoxicating liquors within a state park.

ENVIRONMENTAL PROTECTION: It is unlawful for any person to destroy, or damage any property of the state, including but not limited to trees, vegetation, ruins, relics and geological formations. It is unlawful for any person to injure or molest any wildlife within a state park.

FIRES AND REFUSE: Fires are permitted only in fireplaces or fire rings provided for that purpose. It is unlawful for any person to dispose of garbage, refuse, sewage or trash of any kind except in receptacles provided for that purpose.

PETS: Pets are permitted in state parks, provided no person shall allow any dog, cat or other pet animal to enter any building or bathing beach; or permit any dog, cat or other pet animal to be unrestrained. Such animals shall be attended and effectively restrained by a leash not exceeding six feet, and such animals shall not deprive or disrupt the enjoyment or use of any area by other persons.

HORSES: Permitted only on trails posted for such use.

PICNICKING AND CAMPING: Permitted only in designated areas. Motor vehicle parking restricted to facilities provided for that purpose.

MOTOR VEHICLE TRAVEL: Permitted only on designated roads or parking areas. It is unlawful for any person to operate an unlicensed motor vehicle in a state park.

**LISTED IN PART' COMPLETE RULES AND REGULATIONS POSTED IN MAJOR USE AREAS OF PARK.*

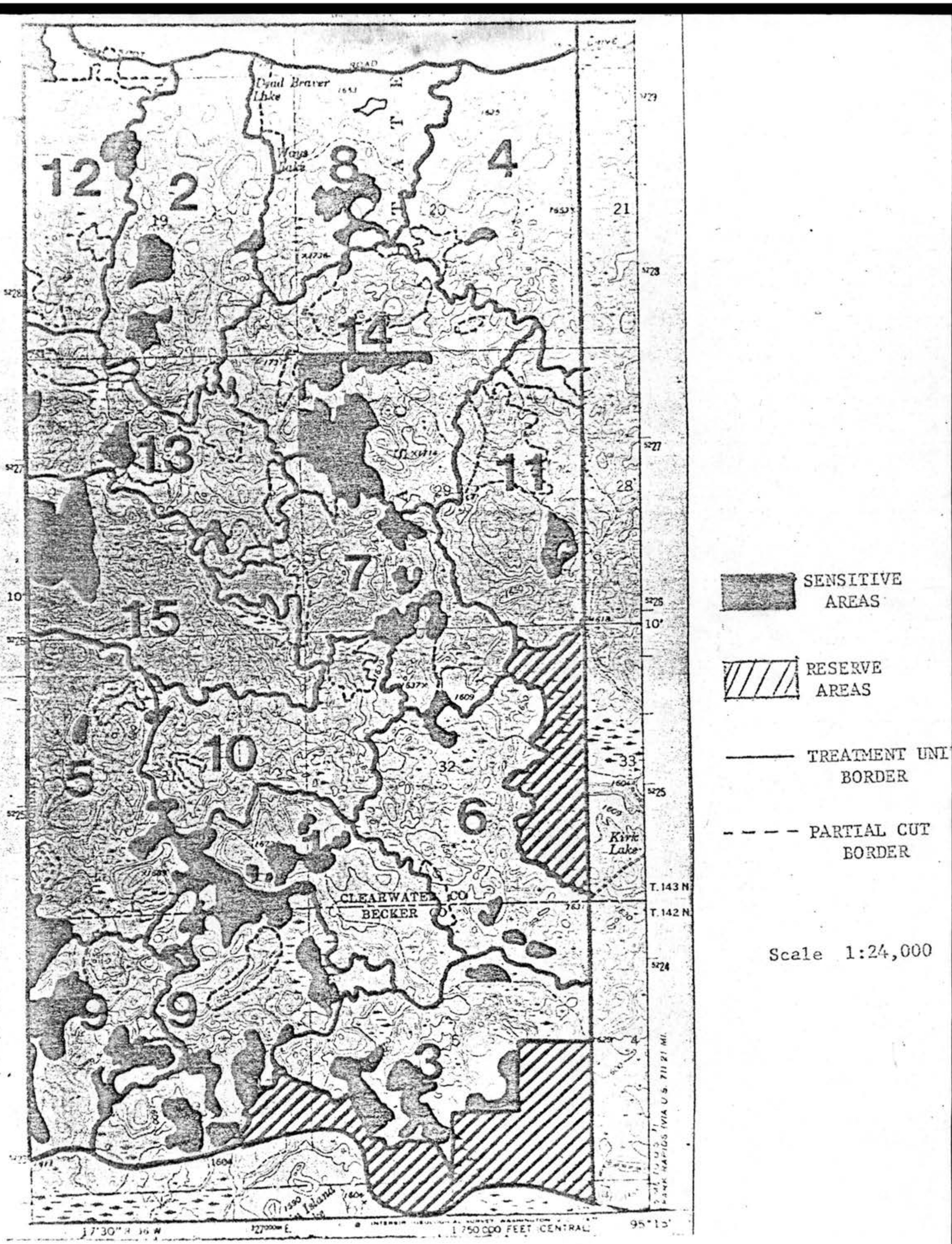


Figure 3. Treatment Units of the Development Management Zone

ANCHOR HILL QUAD.

Table 1

Acres Treated Per Unit

Treatment Unit	Total Acres/Unit[1]	Acres Reserved	Acres Treated[2]
1	191.01	22.04	168.97
2	348.00	106.52	241.48
3	296.61	72.55	224.06
4	325.10	96.42	228.68
5	325.08	69.79	255.29
6	328.75	47.75	281.00
7	299.37	110.20	189.17
8	270.90	60.61	210.29
9	539.04	242.43	296.61
10	237.84	36.73	201.11
11	275.49	31.22	244.27
12	235.08	37.65	197.43
13	274.57	45.92	228.65
14	402.22	126.73	275.49
15	300.28	67.95	232.33
Total Acres	4649.34		
Total Reserve Acres		1174.51	
Total Treated Acres			3474.83

[1]Acreages computed from 1:24,000 U.S.G.S. Topographic Map.

[2]Treated acreages include areas to be partially cut.

or frill has been made or can be done in one operation when using the Hypo-Hatchet injection tool.

IV. Other Mitigative Measures

Logging Contract Regulations & Restrictions

1) Clear-cut all merchantable timber as indicated in the appraisal report;

2) Fell trees away from swamps;

3) Utilize aspen and birch to 4" top diameter or less;

4) Certain areas shall be reserved from treatment and so indicated in the appraisal report;

5) Some stumpage may be excluded after harvest operations have begun;

6) Non-merchantable trees of non-reserve species shall be cut or pushed down and flattened to facilitiate burning;

7) Cutting of non-commerical stands may be required;

8) Limbing can be done where the tree is felled, but topping must be done at a convenient site and the tops pushed into piles for burning;

9) Slash shall be flattened with a skidder or the like and kept out of swamps;

10) Slash shall be removed from reserve pine stands and kept away from pine tree bases;

11) Stumps shall not be higher than six inches from the ground, or stump heights shall be regulated for given conditions;

12) Roads: all shall be to minimum specifications:

    a) Main haul roads will be set up by the Division of Forestry and Parks. No deviations will be allowed without permission;

    b) Road construction debris shall be shoved well off the road and flattened. None shall be shoved into swamps or drainage ways;

    c) Roads shall be constructed so as not to impede drainage;

    d) Truck turnouts for passing will be marked out along access roads;

    e) Minor maintenance and snow removal will be the responsibility of the timber operator;

13) Timber landings will be located a minimum of 200 feet off the main haul road, according to the Forester's directions and to the minimum Division of Forestry specifications;

14) Any solid waste or equipment residue must be kept picked up and a garbage can provided for this purpose;

15) Oil from equipment oil changes must be drained into a receptacle for removal from the park;

III. C. 1. The project is in Itasca State Park.

2. Bald Eagle and Osprey nest within the park. The nearest nest is about 1.5 miles from the project. There will be no impact on these nests from the project.

The project will provide nesting sites for these birds in the long run. The project will also provide habitat for fisher and pine marten as the pine stands mature.

3. This project will be beneficial to wildlife. It will increase the vegetative diversity thus increasing the number of species in the project area.

III. J. 7. The herbicide to be used is 2-4-D. It will be applied as per labled instructions. The size of treatment areas will be limited to 40 acres.

AERIAL SPRAY

The application of herbicide to the foliage of competing vegetation during the peak of maximum growth. When applied at this time, excellent control can be achieved at a low cost. Application by helicopter.

Guidelines:
1) Weather Conditions
- wind less than 6 mph
- relative humidity more than 50%
- temperature less than 80° F
- no spray in rainy or foggy weather
- no spray when air turbulence is so great to affect the normal spray pattern

2) Other
- 100' buffer strap along private land
- 100' buffer strap along roads
- 200' buffer strap along water (lake, river or stream)
- 100' buffer along wet swamps or potholes
- 100' buffer along sensitive and reserve areas

GROUND SPRAY

Application of herbicide to foliage of competing vegetation by ground applicators (mist blowers, power sprayers, backpack sprayers, etc.) This method is feasible where the acreage is small (10 acres), the treatment required is variable, or the height of the vegetation to be controlled is low.

Guidelines:
1) Weather Conditions (same as for aerial spray)
2) Other (Same as for aerial spray)

BASAL SPRAY

Application of herbicide to the stems of woody plants at the ground line or just above it. Hand method.

Hand Injection

Application of herbicide to the tree by means of cuts, frills, holes or nothches. Herbicide is applied to the tree after the cut

17) All buidlings and equipment must be removed from the permit area within the specified 90-day period;

18) Time of day or day of week or season for cutting may be restricted;

19) If there is some doubt or question about some environmental problem, the operator is requested to contact the District Forester at the Itasca Ranger Station.

Wroe
266 - 3661

116
3
348 - lb.
(lb/gal.)

X 10.80 ACRE

87 gal
$783

cut two years ago
no burning not enough fuel
10 - 12' sprouts
dozer work too costly
too many slopes for cat.

Money - very maj. - Joe prob.

buffer around restricted areas?
pine area.

cut with feller buncher

3 lb. ace.

MIKE Henry H.
letter to DD
O.K.ING
SPRAY

Bill W. has 78 000 for Labor Service Money
Can do!

type of regen.? plant or seed.
YACC labor to plant?

check LAWCON
More until Nov. No proj.

check with Bill on adding to present
contract - can do
- we would need dollars and chemical
type of seedlings available
testtube or nickle trees

Joe

order trees in fall

pay by parks
directly

Region Copy - PARKS

A-15

Rev. 9/75

(Local DNR reproduction (copying) of this form is authorized.)

STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES

Region 1 Discipline FORESTRY/PARKS

Project No. 114 - 1

Date 5 / 4 / 1979

Submitted by:

EUGENE W. WROE
(Name)

Eugene W. Wroe
(Signature)

PROJECT PROPOSAL

Name of Project PLANTING SITE PREPARATION USING AERIAL SPRAY.

Area, District or Park BEMIDJI, ITASCA, & ITASCA PARK County CLEARWATER & BECKER

Federally Reimbursable: Yes____ No____ DNR Project or Source Code ______

AID Chargeable ______ Sequence No. _____ Object Class Code ___

Estimated Total Cost ____ . __ (Use page 2 if more than one code.)

Class of Land Class- 1G, Ownship- 1, Admin.- 5 Location (see map) Sec. 5-142-36 and Sec. 32-143-36

Acres 116 Miles ______ Detailed Explanation of Project Aerial spraying of 2-4-d to kill the Aspen and brush sprouts, this to be followed by prescribed burning. Recommend spraying in the last week in June or the first week in July.

COST ESTIMATE

Equipment Requirement

Type Size	No. ~~Hours~~ ACRES	Rate/Hour	Total Cost
Contract Aerial Spraying with Helicopter.	116	16.00	$ 1856.00
Contract should include the Helicopter and the			
chemicals, plus the tanker supply vehicle			

Total Equipment Hire: ______

Personnel Requirement

No. of Men		No. Hours	Rate/Hour	Total Cost
	Equipment Operators			
	Truck Drivers			
	Carpenters			
	Laborers			
	Crew Foreman			

Total Personnel Hire: ______

Materials and Supplies Needed

3-Digit Obj. Class Code	Description	Total Cost
	TO BE SUPPLIED BY THE CONTRACTOR.	

FINANCING OF THE PROJECT

	AID ______ Seq.# ______ Proj. or Source M.F.S.	AID ______ Seq.# ______ Proj. or Source [illegible]	TOTAL
Salaries - Labor			
Salaries - Supervisor	$ 16.18		$ 16.18
Equipment Rental with Operator		$ 1856.00	1856.00
Equipment Rental or Lease			
Gas, Oil, Lubricants	10.00		10.00
Materials & Supplies			
Repairs & Maintenance			
Development, Minor Construction			
Bldg. & Construction Materials			
Other Equipment			
Other Costs (Specify)			
TOTALS	$ 26.18	$ 1856.00	$ 1882.18

State equipment, supplies or labor to be used on project.

DIV. OF [illegible] SUPV. -- 2 hrs.

Show location of project on grid. Be sure to indicate scale. Show sections, townships and ranges. Show existing roads if adjacent to the project area.

Separate map sheets attached.

Sections ________ Twps. ________

Ranges ________ Scale ________

Proposed Starting Date June 25,1979 Proposed Completion Date July 6,1979.

Remarks Spraying to be done, if possible, between these dates.

TOTAL COSTS: Labor $16.18 Equip. Rental 1856.00 Materials $10.00 TOTAL $ 1882.18

Project Approved Milton Krona (Name) ACTING DIRECTOR (Title) MILTON KRONA (Signature)

*1
2-2-79
Ed

Region Copy - Parks

COVER TYPE MAP

MINNESOTA
DEPARTMENT OF NATURAL RESOURCES

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Source

TOTAL #1

-2-79

E.W. Wroe

1:1

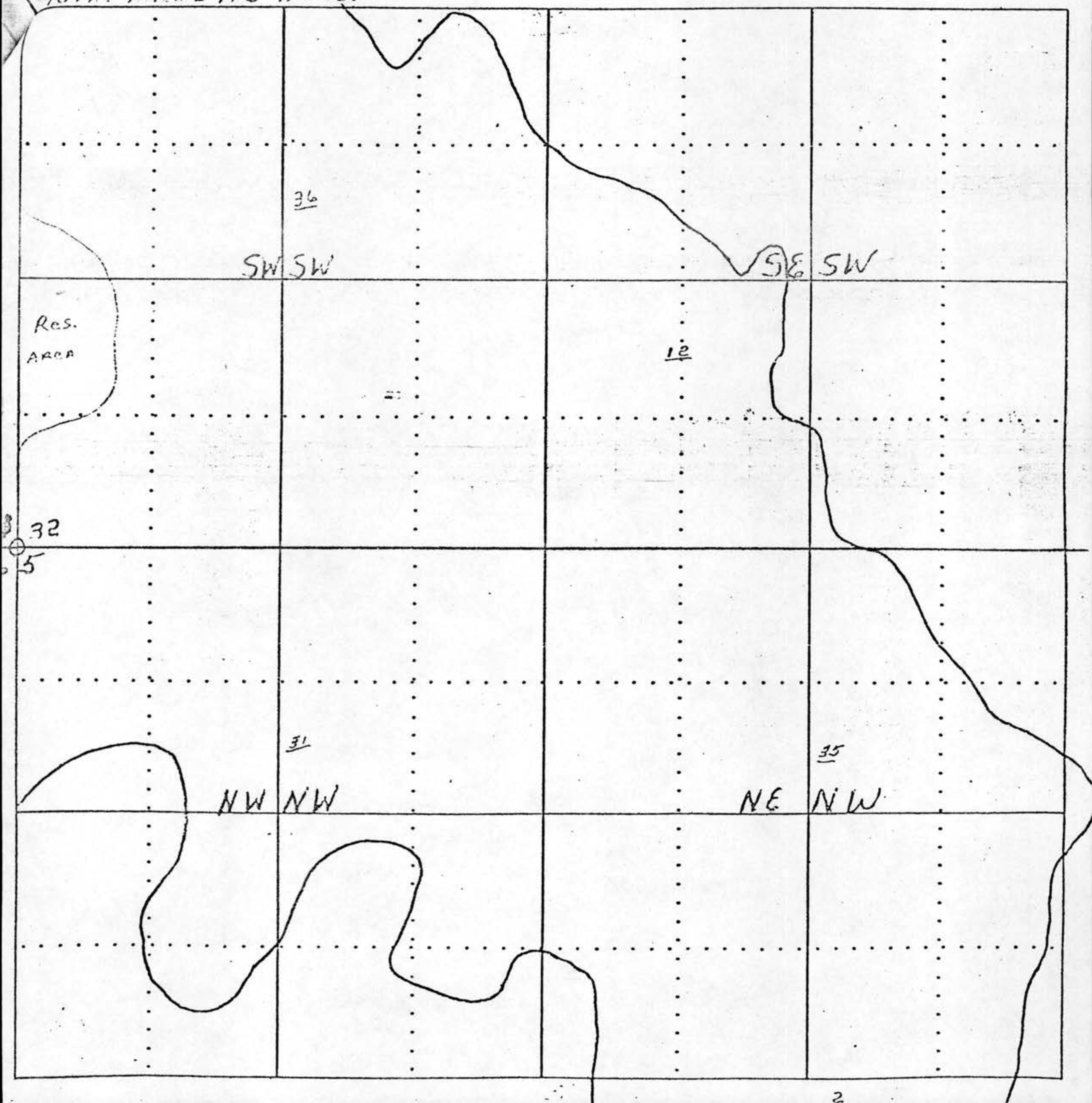
36.W

5 - 142- 36W

SEC. 32 TWP. 143 R 36W

MAGNETIC DECL. 6°

Total Area = 116 Acres.



A-41
Rev. 8/77

SAMPLE

STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES

REQUEST FOR APPROVAL OF USE OF PESTICIDES ON LARGE AREAS

13-1

This request form is to be completed by personnel of the Department of Natural Resources who plan to use a pesticide (herbicide, insecticide, fungicide, etc.) on any area larger than 40 acres and is to be submitted in duplicate to the Commissioner's Office for approval prior to application.

1. Location (county and legal description) of area to be treated:
   Portions of the SW¼ & SW¼ SE¼ of Sec. 29; NE¼ NW¼ & NW¼ NE¼ Sec. 32, Township 158, Range 29 - Koochiching County. Plantation # 12007
2. Size of area in acres: 64 Acres
3. Proximity of area to lakes or streams: No lakes, streams or ditches within ½ mile.
4. Reasons for proposed application: To release Norway Pine Plantation from undesirable brush and Aspen competition.
5. Chemical, concentrations and application methods to be used: Aerial application of herbicide by helicopter with the following chemical mixture: 2½ Qts. 2-4-D mixed with 21½ Qts. water, or 6 gallons total mixture per acres
6. Approximate date of application: Late July or early August 1979.
7. Possible alternative methods or chemicals: Ground application of 2-4-D mixture or hand tool release; both of these methods are impractical and too costly.

Requested by: Robert Anderson

Title: Area Staff Forester

Address: Baudette, Minnesota

Date: 1/25/79

WMB Approved by:

Division Director

Commissioner of Natural Resources

Date: 4/17/79

A - 41
Rev. 1/71

STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES

REQUEST FOR APPROVAL OF USE OF PESTICIDES ON LARGE AREAS

This request form is to be completed by personnel of the Department of Natural Resources who plan to use a pesticide (herbicide, insecticide, fungicide, etc.) on any area larger than 40 acres and is to be submitted in duplicate to the Commissioner's Office for approval prior to application.

1. Location (county and legal description) of area to be treated: ITASCA STATE PARK CLEARWATER + BECKER CoS R36W - T142N - S5 + R36W - T143N - S.32

2. Size of area in acres: 116 ACRES

3. Proximity of area to lakes or streams: ~~3~~ 4 SMALL LAKES WITHIN 1/2 MILE, NO PERMANENT STREAMS WITHIN 1/2 MILE

4. Reasons for proposed application: SITE PREPERATION FOR PINE RESTORATION PLANTING

5. Chemical, concentrations and application methods to be used: AREIAL APPLICATION OF HERBICIDE BY HILICOPTER WITH THE FOLLOWING CHEMICAL MIXTURE: 3 QTS. 2-4-D MIXED WITH 21 QTS. WATER OR 6 GALLONS TOTAL MIXTURE PER ACRE

6. Approximate date of application: LATE JULY

7. Possible alternative methods or chemicals: ~~FIRE~~ PRESCRIBED BURN - NOT ENOUGH FUEL TO BURN EFECTIVELY. SHERING WITH BULLDOZER - TOO MANY STUMPS + ROCKS TO BE EFECTIVE, ~~WITH OUT~~

Requested by: FRANKLIN H. KNOKE

Title: ENVIRONMENTAL SPECIALIST

Address: ST. PAUL

Date: 7/9/79

Approved by:

____
Division Director

____
Commissioner of Natural Resources

Date: ______________________

STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES

GUIDELINES FOR USE OF PESTICIDES BY DEPARTMENT OF NATURAL RESOURCES PERSONNEL

The guidelines below are to be followed by all Natural Resources Department personnel in planning and carrying out control of plant and animal pests:

I. Use non-chemical methods whenever possible.

II. Make safety rather than cost the primary consideration in selection of materials and methods.

III. If chemicals are used:

1. Have plans approved by the Commissioner of Natural Resources if application of chemical is to be made to areas larger than forty acres. Do not suggest use of any restricted pesticides unless their use is required by special circumstances. These restricted pesticides are DDT, DDD & TDE, Dieldrin, Endrin, Heptachlor, Lindane and Aldrin.

2. Inform all local units of government and state and federal agencies whose interests may be involved.

3. Use recommended chemicals carefully and according to label instructions, and follow any special instructions for each chemical used. Choose the most selective chemical and safest carrier that will do the job.

4. On upland application of chemicals, make certain that only the target area receives chemical and that no lakes or streams are contaminated directly or by runoff.

IV. Whenever possible arrange for a follow-up survey to evaluate effects of the chemical application on target and non-target organisms. The Division of Game and Fish will participate in follow-up surveys and will seek assistance as necessary from the State Department of Health and Agriculture and other agencies.

V. If a follow-up survey is not possible, make and record general observations and report to the Division of Game and Fish all instances in which fish, mammals, birds, or any other desirable animal or plant life have been adversely affected by application of a pesticide.

VI. If technical assistance is needed in planning control projects, contact the Division of Lands and Forestry and the Division of Game and Fish.

VII. Request for approval of application of a pesticide to an area larger than forty acres should be made on form A-41.

DON D.

UNIVERSITY OF MINNESOTA
TWIN CITIES

College of Forestry
Department of Forest Resources
110 Green Hall
1530 North Cleveland Avenue
St. Paul, Minnesota 55108

June 25, 1979

Mr. Don Davison, Director
Division of Parks and Recreation
Department of Natural Resources
Centennial Office Building
St. Paul, MN 55155

Dear Don:

I understand from Joe Ludwig in the Bemidji office that a proposal to spray 2, 4-D on a tract in Itasca State Park cleared his office some time ago, and is someplace in St. Paul now. I am writing to support the need for this and to urge that prompt attention be given to its review there.

The area involved is part of the vegetative restoration project that was prepared for planting two years ago but was delayed pending completion of the general park management plan. In the interim, a dense stand of aspen suckers has taken over. The spraying is needed to set back these suckers and to provide dry fuel for a burn this fall. If this is done, the area can be planted to pine next year.

The urgency is that the timing must coincide with other spray jobs scheduled by forestry in that general area within the next 3 or 4 weeks..

As you may know, there is no EPA or other restriction on this use of 2, 4-D except that it be applied by certified applicators, following prescribed practices.

I attended the public hearings on the park management plan at Park Rapids and Bagley. While the weather was bad and the attendance modest, Dennis Thompson and Mike Miller did a good job of reviewing the plan. I felt that the plan was generally well received and that several constructive criticisms were voiced that merit consideration.

Sincerely,

Henry L Hansen

Henry L. Hansen
Professor

HLH/gi

A - 41
Rev. 1/71

STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES

REQUEST FOR APPROVAL OF USE OF PESTICIDES ON LARGE AREAS

This request form is to be completed by personnel of the Department of Natural Resources who plan to use a pesticide (herbicide, insecticide, fungicide, etc.) on any area larger than 40 acres and is to be submitted in duplicate to the Commissioner's Office for approval prior to application.

1. Location (county and legal description) of area to be treated:

   Itasca State Park - Clearwater and Becker Counties

   R36W - T142N - S5 and R36W - T143N - S32

2. Size of area in acres: 116 Acres

3. Proximity of area to lakes or streams: 4 small lakes within ½ Mile, No permanent streams within ½ mile

4. Reasons for proposed application: Site preparation for Pine restoration planting

5. Chemical, concentrations and application methods to be used: Aerial application of herbicide by helicopter with the following chemical mixture: 3 Qts. 2-4-D mixed with 21 Qts. water or 6 gallons total mixture per acre.

6. Approximate date of application: Late July

7. Possible alternative methods or chemicals: Prescribed burn - not enough fuel to burn effectively. Shearing with bulldozer - too many stumps and rocks to be effective.

Requested by: Franklin H. Knoke FHK

Title: Environmental Specialist

Address: St. Paul, Minnesota

Date: 7/9/79

Approved by:

[signature] 7/10/79
Acting Division Director

[signature]
Commissioner of Natural Resources

Date: 10 July 79

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DEPARTMENT OF NATURAL RESOURCES

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Please help me PREVENT FOREST FIRES!

To: Frank Knoke

From: Gene Wroe

File

The Spraying For Planting Site preparation should have been done earlier for the best results, however, it appears to have done a good job.

Our next step is to put in the fire breaks so that burning can be done in Sept. or Oct. of this year.

I have asked for the helicopter for setting the fire. With this piece of equipment they can do in 15 min. what would take several men to do in an hour. I had a talk with Joe Ludwig & he was receptive to the fire breaking & helicopter.

My understanding is that money will be available for this work, is this fact or fiction?

RECEIVED

AUG 22 1979

Dept. of Natural Resources
Div. of Parks & Recreation

FOREST DEVELOPMENT RECORD

F-67
DIVISION OF FORESTRY
STATE OF MINNESOTA

A

TYPE OF ACTIVITY: 1. SITE PREPARATION ☒ 2. LAND CLEARING ☐

3. RELEASE ☐ 4. THINNING ☐ 5. PRUNING ☐ 6. SANITATION WORK ☐

7. CHRISTMAS TREE CULTURE ☐ 8. FIREBREAK ☐ 9. DEBARKING ☐

10. CONE COLLECTION ☐ 11. INSECT OR DISEASE CONTROL ☐ 12. FERTILIZATION ☐

13. OTHER (SPECIFY) ____

METHOD: 1. MACHINE ☐ 2. CHEMICAL ☒ 3. HAND TOOLS ☐ 4. PRESC. BURNING ☐

AREA 11 COUNTY Clw. (15) STATE ~~FOR.~~ PARK - Itasca DATES Aug 1 & 2, 1979

DESC. ____ S 32 T 143 R 36W LAND STATUS L.G (5)

ACCOMPLISHMENT: 116 ACRES 5 + 142 ~~MILES~~ 36W OTHER (SPECIFY)

B

SITE: GOOD ☒ MED. ☐ POOR ☐ SOIL MOISTURE: WET ☐ MOIST ☒ DRY ☐

TOPOG.: ROUGH ☐ ROLLING ☒ LEVEL ☐ SOIL TYPE: LOAM ☒ CLAY ☐ BETTER SAND ☐

POOR SAND ☐ ROCKY ☐ POORLY DRAINED MINERAL ☐ PEAT ☐

COVER TYPE: A 0-1'''' UB ; SWP. GRASSES-DENS. — SPEC. —

UP. GRASSES-DENS. — SPEC. — LOW BRUSH DENS. — HEIGHT —

SPECIES — UP. BRUSH DENS. Heavy HEIGHT 4'-5' SPEC. Hazel & Willow

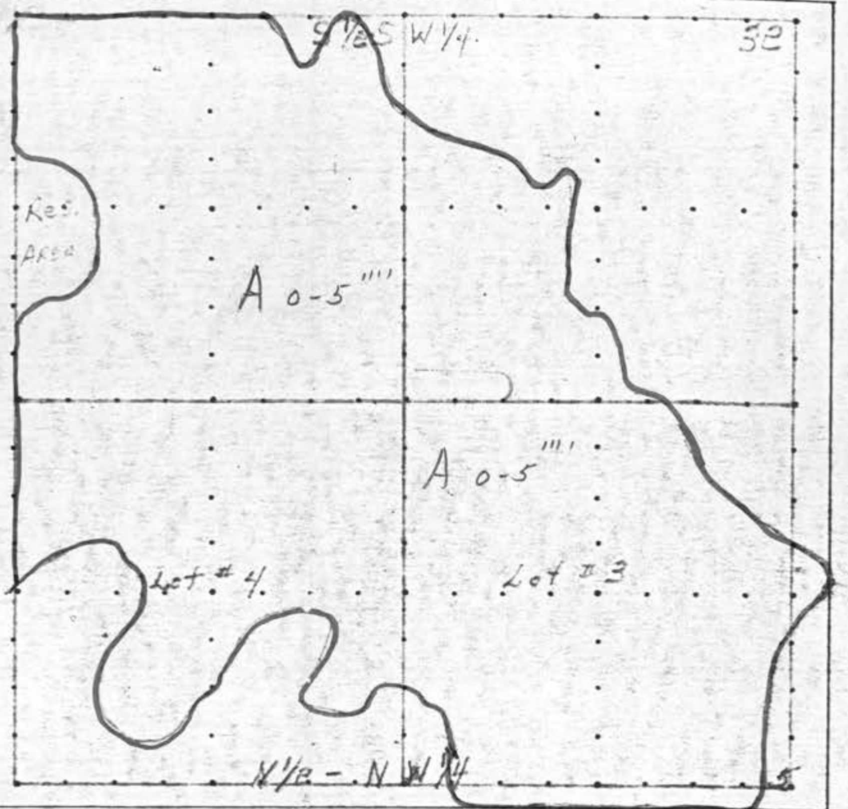
TREES 0-5" - STEMS/ACRE 45 M SCATT. ☒ CLUMPS ☐ SPEC. Aspen

TREES 5"+ - STEMS/ACRE 6 SCATT. ☒ CLUMPS ☐ SPEC. Oak, Elm, Maple, Bi.

STUMPS/ACRE 350 (SCATT. ☒ CLUMPS ☐) (ROTTEN ☐ SOLID ☒)

SLASH: (HEAVY ☒ LIGHT ☐) (SCATT. ☒ CLUMPS ☐) (GREEN ☐ BRITTLE ☒)

CARD NO. 22311



C COST ANALYSIS

	HOURS	FUND 201 MFS	FUND PARKS	FUND	TOTAL
HIRED LABOR		$	$	$	$
MFS SUPV. & LABOR	12	90.90			90.90
Helicopter & Spray HIRED EQUIP.			1252.80		1252.80
MFS. EQUIP.					
CHEMICALS					
MFS TRAVEL	X X	6.00			6.00
MFS SUBSIST.	X X				
TOTAL	12	$ 96.90	$ 1252.80	$	$ 1349.70

COST $ 11.64 PER Acre (ACRE, MILE, BUSHEL, ETC.)

D REMARKS: MAP SCALE ____ PER MILE

The spraying of Aspen & other hardwood species was begun on August 1, 1979 @ 8:00 PM 8:30 PM. Then on the 8-2-79 started @ 6:00 AM & completed by 6:30 AM.
Location - Lot 3 & 4 - Sec. 5 - 142 - 36 (L.G. Adm. 5)
" S 1/2 SW 1/4 - Sec. 32 - 143 - 36 (L.G. " 5)
Chemicals = 2 1/2 # Per Acre.

DO NOT FOLD, SPINDLE, OR MUTILATE

F-67

SITE PREPARATION AND LAND CLEARING. E

METHOD (EQUIP. OR CHEMICAL USED.) Aerial Spray - 2-4-D [illegible]
Weedone.

SITE PREPARED FOR: 1. MACHINE PLANTING ☐ 2. HAND PLANTING ☒

3. NATURAL REGENERATION ☐ 4. SOWING ☐ 5. OTHER ☐ SPECIFY ______

SUCCESS: (REMARKS FOR ADD'L. SPACE) ______

RELEASE, THINNING & SANITATION CUTTING: F

METHOD (EQUIP. OR CHEMICALS USED) ______

SPECIES LEFT: ______

SPECIES REMOVED ______

STEMS ACRE REMAINING ______ AGE OF RESIDUAL STAND ______

PRUNING G

METHOD (EQUIP. USED) ______

SPECIES PRUNED ______ AV. HT. OF STAND ______ HT. PRUNED ______

NO. STEMS PRUNED PER ACRE ______ AGE OF STAND ______ AVE. D.B.H. ______

OTHER H

EXPLAIN: ______

INSTRUCTIONS: FILL OUT THE VARIOUS BLOCKS AS FOLLOWS

(REFER TO TYPE OF ACTIVITY, BLOCK A, FOR NUMBERS)

BLOCK A & C FILL OUT COMPLETELY FOR ALL ACTIVITIES

BLOCK B FILL OUT AS PERTINENT ① ② ③ ④ ⑤ ⑥ ⑧ ⑨ ⑪ ⑫ ⑬ LEAVE BLANK FOR ITEMS ⑦ & ⑩

BLOCK D BE SPECIFIC AS PER LETTER OF INSTRUCTIONS

BLOCK E, F, G, & H FILL IN AS APPLICABLE

BLOCK I FILL IN COMPLETELY WHENEVER CHEMICALS ARE USED FOR ANY PURPOSE

BLOCK J FILL IN COMPLETELY WHENEVER PRESCRIBED BURNING IS USED FOR ANY PURPOSE

DATE SUBMITTED: ______ BY: ______

CHEMICALS. I

1. AERIAL ☒ 2. POWER PUMP ☐ 3. HAND PUMP ☐ 4. OTHER ☐ ______ (HOW)

FOLIAGE DEVELOPMENT 1. BUD ☐ 2. PART LEAF ☐ 3. FULL LEAF ☐

CHEMICAL APPLIED TO: 1. FOLIAGE ☒ 2. BARK AT BASE ☐

3. CUT SURFACE ☐ 4. SOIL ☐ 5. OTHER ☐ SPECIFY ______

TYPE OF CHEMICAL ACTIVE INGREDIENTS 2,-4-D Acid butoxyethanol ester 64.0 %

MFR. & BRAND NAME Weedone LV 4

QTS. CHEM. 2 1/2 + QTS. OIL —— + QTS. WATER 21 1/2 = 24

TOTAL QTS. MIXED 24 PER ACRE - 100 TREES (CROSS OUT ONE)

KIND OF MARKERS USED Parachute Silk - White + Orange.

FILL IN FOLLOWING FOR FOLIAGE SPRAY JOBS:

WEATHER CONDITIONS 8-1-79 Evening - 72°, Wind Vel. - under 6 mph.
8-2-79, A.M. - 59° Hum. - 94 %, Calm., Time - 0617 To 0655.

WAS APPLICATION UNIFORM Yes IF NO-EXPLAIN ______

LIST SPECIES AND % KILL (Aspen - 95 % ; N. Hwds. - 5 %) Species

PRESCRIBED BURNING: J

BURNING INDEX ______ TIME STARTED ______ RUNNING FIRE OUT ______

DESCRIBE FIREBREAKS ______

REMARKS ON METHOD USED ______

LIST SPECIES AND % KILL: ______

P.S.P. - Sec. 5-142-36
Sec. 32-143-36

AERIAL SPRAY

MINNESOTA - DNR - FORESTRY

Attachment #2

ITASCA STATE PARK
District

8/1/79
Date

11
Area #

116
Acres

696
Gallons needed

696
Gallons sprayed

80
Gallons/Load

9
Loads

62
Wet Bulb

70
Dry Bulb

64%
Relative Hum.

4.5
Wind Speed

S
Direction

2 1/2 QTS 2,4D PER ACRE

Load II	Time of Departure	Time of Arrival	Flying Time	Acres	Gal.
1	0940	0945	5	13.3	80
2	0947	0954	7	13.3	80
3	OPERATION	SUSPENDED:	OCCAISIONAL		WIND
4				7 MPH.	
5	RESUME	AT 1952	8/1/79	TEMP =	72°
6		WET BULB = 62°,	R.H. =	57%, WIND	S@3
7	1953	2000	7	13.3	80
8	2002	2009	7	13.3	80
9	OPERATION	SUSPENDED:	TOO	MUCH	WIND AT
10		SPRAY	SITE.		
11					
12	RESUME	8/2/79	0610,	WIND =	CALM
13		TEMP 59°	WET BULB	58°, RH	94%
14					
15	0611	0617	6	13.3	80
16	0619	0624	5	13.3	80
17	0626	0634	8	13.3	80
18	0640	0648	8	13.3	80
19	0650	0655	5	9.3	56
20					
21					
22					
23					
24					
25					

Reason for stopping and remarks

EXISTING VEG · ITASCA

1 2 3 4 5

- E. boundary road - jack is falling good spruce and red p. coming in used by naturalist to show succession prob. best to leave as is.

- Indian mound - bad shape not much red p. some oak & maple coming in. high visibility area will look like hell any way you go. may be good site for regeneration demonstration should cut in winter