



Minnesota Natural Resources
Department: Environmental
Assessment Files Regarding State
Parks

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ENVIRONMENTAL ASSESSMENT

LUCE LINE TRAIL

I. DESCRIPTION OF THE PROPOSED ACTION

- A. Purpose of the Action - The Luce Line Trail was established by an act of the Minnesota State Legislature as a State Recreational Trail in 1973. The trail was officially designated by the Commissioner of the Department of Natural Resources on September 2, 1976.

The Federal Bureau of Outdoor Recreation, as administrator of the Land and Water Conservation Fund (LAWCON), proposes to participate with the State of Minnesota in the acquisition of land for the Luce Line Trail.

- B. Location and Magnitude of the Project - The Luce Line Trail is a stretch of 104 miles of abandoned Chicago Northwestern Railroad right-of-way. It originates at Gleason Lake in Plymouth Village, Hennepin County and terminates at Gluek in Chippewa County. (See map in Appendix) The trail passes through Hennepin, Carver, McLeod, Meeker, Kandiyohi and Chippewa counties. The originally proposed acquisition of the right-of-way, averaging 100 feet in width, totaling 1,248 acres is 96.5 percent complete. It is proposed that the remaining 3.5 percent, 43.57 acres, be acquired with the assistance of the Land and Water Conservation Fund. The current estimated cost for acquiring the land, 10 parcels, is \$145,630.
- C. Timing of the Project - Within the State Corridor Trail System there are 11 trails, approximately 935 miles. To date, 448 miles have been acquired. Of the remaining 487 miles of trail, 170 miles are programmed to be acquired this biennium, 1976-77.

It is estimated that \$2,383,292 will be needed to acquire the total miles of land. Appropriations are made on a biennial basis. During the current

biennium, \$1 million is available to acquire 170 miles of trail.

Planned acquisition of the Luce Line Trail, for the 1976-77 biennium, was 10 miles, 120 acres, at an estimated cost of \$120,000.

Although the Division of Parks and Recreation establishes its priorities for acquisition, complete immediate acquisition is impossible. First, the Department does not have eminent domain and therefore must rely on willing sellers and second, the current estimated cost of \$145,630 would be prohibitive within current appropriation limitations and other state-wide acquisition priorities.

- D. Future Development - The Minnesota Department of Natural Resources, proposes to develop the entire 104 mile abandoned right-of-way as a multi-use trail for outdoor recreational activities. It will allow for snowmobiling nonmotorized uses; snowshoeing, skiing and snowmobiling during the winter and bicycling, hiking and horseback riding in the summer. Trail side parking, campgrounds and rest areas will be provided for users.

The trail will be developed in three phases, with some of the uses excluded until other paths paralleling the original roadbed can be developed. The trail will be developed, to fill the needs of the greatest user demand, consistent with sound environmental considerations.

In some areas, because of terrain, width of the right-of-way, residential development, etc., certain types of uses will not be permitted.

All motorized vehicles will be prohibited from the trail with the exception of snowmobiles.

Development of the trail will consist of the installation of culverts, bridge decking and safety railings; blading, shaping, ditching, compacting and surfacing with limestone for a bicycle trail; brushing,

blading, shaping, ditching, corduroying, compacting and rolling for a horse trail; installation of fence; and construction of parking, picnicking and camping facilities.

- E. Recreation Needs to be Served by the Proposal - The six counties that the Luce Line Trail runs through are parts of Planning Regions 6 and 11 of the Minnesota Comprehensive Outdoor Recreation Plan (SCORP). This plan reveals a need for more land-and water-based recreational opportunities. SCORP estimates that the following deficiencies of facilities will prevail in 1975, 1980 and 1990:

	Region 6			Region 11		
	1975	1980	1990	1975	1980	1990
Campsites	-512	-778	-1,211	-2,687	-3,952	-5,551
Picnic Tables	-444	-451	-582	-9,736	-12,193	-17,906
Snowmobile Trails	-543	a	a	-2,466	a	a
Hiking Trails	-108	a	a	-1,874	a	a

a - Not projected beyond 1975.

SCORP identifies other deficiencies which will have to be met by county and local governments, rather than state or federal. The deficiencies above, however, are capable of being reduced through acquisition and development of state lands. Expanding the county and state trail systems to help meet quantified deficiencies (snowmobiling, cross-country skiing and biking) is identified in SCORP as a top priority for action.

Projections of future use for the Luce Line Trail are not available. However, State Planning Agency population projections, Table 1, may give some indication of increased future use.

TABLE 1

POPULATION PROJECTIONS

	<u>1975</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>
Hennepin County	958,400	983,400	1,018,100	1,011,100
Carver County	31,600	34,400	40,300	46,900
McLeod County	29,100	31,400	36,800	42,300
Meeker County	19,600	19,700	20,900	21,400
Kandiyohi County	31,100	32,200	34,500	35,600
Chippewa County	15,000	14,900	15,100	14,500
Region 6	162,300	164,300	172,400	175,600
Region 11	1,927,600	2,027,700	2,222,500	2,355,700

II. DESCRIPTION OF THE ENVIRONMENT

- A. Topography - The Luce Line Trail is surrounded by generally flat or gently rolling land. It passes through two major vegetative communities as it runs westward. At the eastern origin of the trail, deciduous hardwood forest encompasses the right-of-way for over 30 miles, breaking occasionally for man-made and natural clearings.

The vegetation gradually changes to grassland in an area of transition from forest land to prairie land. Large stands of trees are minimal and lakes, marshes and sloughs are numerous.

The easternmost end of the trail is engulfed by prairie land, and endangered habitat. Even though most of the land has been converted to agricultural use, prairie vistas of both wet and dry prairie can still be observed.

- B. Soils - The parent materials of the soils of Minnesota were primarily deposited by the action of glaciers during the Ice Age. The entire length of the Luce Line Trail lies over glaciated soils. These soils, in most cases, are well-drained with major erosion and/or drainage problems. The major soil associations in the project area are Hayden, Lester-Le Sueur-Glencoe, Clarion-Nicollet-Webster, Truman-Marna, and Barnes-Aastad-Flom.

Hayden soils, found in Hennepin County, are on gently rolling to strongly rolling land. This light-colored soil, formed from calcareous loam or clayey loam glacial till, is well-drained and has major erosion control problems. Poorly drained depressions in the area are occupied by dark-colored Bluffton soils or peat and muck.

Carver County has soils from the Lester-Le Sueur-Glencoe group. These soils have been formed from medium textured calcareous glacial till and

are found on gently rolling areas. Lester loam is moderately dark-colored, well-drained and occurs on slopes. Glencoe clay loam, dark-colored and very poorly drained can be found in wet depressions. Le Sueur soils are dark-colored, moderately well-drained and occur on nearly level areas. Drainage and erosion problems are characteristic of this group.

McLeod County is in the soil association group, Clarion-Nicollet-Webster. These are dark-colored soils on level to gently rolling areas which have been formed from calcareous loam till of the Wisconsin Age. Clarion loam is well-drained, slightly acidic and occurs on slopes. Nicollet loam is moderately well-drained and occupies nearly level lands. Webster clay loams are poorly drained and are found on level areas. Erosion may be a problem on Clarion soils.

Truman-Marna soils are found in Meeker and Kandiyohi counties. Found on a level to undulating area, these dark-colored soils were formed from calcareous silty and clayey lacustrine or windblown deposits. Truman silt loam is well-drained and occurs on gentle slopes. Marna silty clayey loam is poorly drained, fine textured and occurs on the level areas. Erosion control is a problem on some Truman soils but the major problem of the area is drainage.

The last miles of the trail, in Chippewa County, are on Barnes-Aastad-Flom soils. These are dark-colored soils formed from calcareous loam glacial till and are found on a nearly level to rolling area. Barnes loam is well-drained and occurs on generally convex slopes on the landscape. Aastad clay loam is moderately well-drained and occurs in nearly level areas. Flom is poorly drained and occurs on the level areas. Erosion control on rolling areas and drainage of poorly drained areas are major management problems.

- C. Mineral Resources - There are no known concentrations of mineral resources having economic significance within the right-of-way of the trail.
- D. Water Resources - Natural lake basins are a very important resource in the area that the trail passes through. The trail is located adjacent to many lakes and ponds, crosses many rivers and streams and, for several miles, roughly parallels the South Fork of the Crow River.
- E. Flora - The original vegetation along the Luce Line Trail was characteristic of a stable hardwood forest to the east and characteristic of prairie land to the west. There was a transitional zone of brushland between the two.

Little of the historical "Big Woods," natural transition zone and prairie land remains as it once was. Clearing, cultivation, grazing, burning and urban sprawl have disturbed the natural vegetation. Some of the original tree species - sugar maple, basswood, hickory, red elm - are still found in the project area. Some of the most common shrub and vine species of the "Big Woods" remaining include Virginia Creeper, alder, gooseberry, bittersweet and moonseed.

Almost all of the natural grasslands in Minnesota (prairies and wet prairies) are extinct because of cultivation, grazing and burning. Today vast acres of corn and soybeans grow where big bluestem, little bluestem, and Indian grass once thrived. Only designated natural areas, roadside ditches and railroad grades have vegetation that resembles the original prairie vegetation. The Luce Line Trail will act as a refuge for many of these scarce plant communities.

Numerous areas of wet prairie, marshes and sloughs occur along the trail right-of-way. These grasslands range from seasonally inundated

grasslands on mineral soil to cattail marshes and red-covered peatlands. Prominent plant species are bluejoint grass, big bluestem, sedges, common reed, cattails, bulrushes, wild rice, iris, willows, speckled alder and log birch.

- F. Fauna - The project area provides suitable habitat for a wide variety of wildlife. Surrounding lands have, to a large extent, been drained and are being used for agricultural purposes. Many acres of habitat for nesting, food and winter cover have been lost. The trail right-of-way, formerly a railroad right-of-way, however, produces a relatively consistent population of wildlife. The ditches are excellent prairie habitat and are greatly used for nesting by numerous small game such as pheasant, hungarian partridge and rabbit.

Many other types of wildlife species are found along or near the Luce Line Trail. Mallards, wood duck and blue wing teal are commonly present in nearby wetlands. Other birds which can be seen along the trail are herons, bitterns, and other shorebirds, hawks, owls and numerous songbirds.

Mammals that are commonly seen on or near the trail corridor include mink, muskrat, raccoon, white-tailed deer, squirrel, woodchuck, skunk, red and gray fox, jack and cottontail rabbit, chipmunk, ground squirrels, weasels, pocket gophers, mice, moles, and shrews.

- G. Climate - This project area is dominated by continental weather patterns that influence all of Minnesota. The state is subject to frequent outbreaks during the cold season. Occasional periods of prolonged heat occur during the summer months.

The mean minimum temperatures for the trail area are 60°F in July and 0° F in January. The mean maximum temperatures are 84°F in July and

22⁰F in January. The annual precipitation along the trail varies from 30 inches in the east to 26 inches in the west.

- H. Historical and Archaeological Resources - The Luce Line Trail closely approximates the path used by the Dakota Indians nearly two centuries ago. Located along the trail are historical points of interest, including events of the Sioux Uprising. However, the Minnesota Historical Society has not listed any sites of historical or archaeological significance occurring on or adjacent to the trail right-of-way.
- I. Transportation and Utilities - Access to the Luce Line Trail can be obtained from an intricate array of highways and freeways which transect the trail. (See highway map in Appendix.) As one drives west, there are fewer freeways; two-lanes, low-use highways provide safe and comfortable accessibility. The start of this trail is within a one-half hour's drive of over one-half of the population of Minnesota.

Overhead power lines exist on the six miles of trail between Highway 101 in Plymouth and Stubbs Bay Road in Orono. These lines were not purchased by the State and are not screened. Other power lines and telephone lines cross the trail at various points. These are also unscreened. Sewer, gas and buried cable are under the trail right-of-way but have no effect on the beauty or function of the trail.

Encroachment exists in some places along the right-of-way. Some landowners have valid licenses, leases or contracts issued by the railroad or Northern States Power Company that permit special use of designated sections of the right-of-way. However, agricultural crops have been illegally planted within the right-of-way. Some fences cross or do not follow correctly the right-of-way boundary line and some grade roads or farm crossings have been erected without obtaining valid crossing permits.

- J. Socio Economic Factors - Employment and income data, summarized in Table 2, was found in "Minnesota Socio-Economic Characteristics," Minnesota State Planning Agency, 1972.

The amount of tourist generated income for Hennepin and Kandiyohi counties is quite significant, for Chippewa and McLeod counties it is fairly significant and for Carver and Meeker counties it is fairly significant. Table 3 shows the comparison between counties with the numbers corresponding to the following: 1) Tourist-travel expenditures, as a percent of the state total; 2) Tourist-travel expenditures as a percent of the gross county sales; and 3) Tourist-travel expenditures per county resident. The county ranks are out of a total of 87 and are based on 1974 data.

- K. Land Use and Development Trends - Land uses abutting the Luce Line right-of-way differ over the entire length of the trail. The eastern one-third, due to soil and topography limitations, is dominated by wooded pasture land. This land is too rough, wet or stony for cultivation.

The dominant land-use in the western two-thirds of the trail is agricultural. The soils here are well-suited for cultivation and the topography is generally rolling. There is also some pasture land along this stretch.

Cultural factors have played a role in determining the present patterns of land use. Towns were found at intervals along the railroad. The trail, therefore, passes through or nearby twenty communities. The influence of the expanding metropolitan area is being felt in the eastern part of the project area.

TABLE 2

	Carver County	Chippewa County	Hennepin County	Kandiyohi County	McLeod County	Meeker County	Region 6E	Region 6W	Region 11
Aggregate Average Family Income (Statewide Average: \$11,097)	\$11,542	\$8,052	\$13,501	\$9,160	\$9,780	\$8,217	\$8,896	\$7,921	\$13,097

Percent Employment by Industry

Agriculture, Forestry, Fisheries	13.3	25.0	.5	16.8	19.8	21.9	21.3	28.7	1.0
Manufacturing	24.8	7.5	20.9	9.7	29.9	21.7	18.8	8.3	23.8
Wholesale and Retail Trade	19.0	24.0	24.1	24.0	16.7	17.6	19.9	20.6	22.0
Professional and Related Services	14.1	14.8	18.9	21.9	11.6	13.6	15.6	16.2	18.3
Other	28.8	28.7	35.6	27.6	22.0	25.2	24.4	26.2	34.9

TABLE 3
TOURIST TRAVEL EXPENDITURES

County	1		2		3	
	Rank	%	Rank	%	Rank	\$
Carver	57	.12	71	0.8	79	36.78
Chippewa	45	.28	42	1.8	27	182.18
Hennepin	1	35.38	32	2.9	17	381.39
Kandiyohi	18	1.01	25	3.9	19	318.85
McLeod	54	.14	79	.5	68	48.29
Meeker	69	.08	83	.4	78	38.58

State Average:
\$254.40

Numerous areas of open water and marshes are located adjacent to the trail. These lands are prime areas for future acquisition and preservation.

The actual right-of-way is presently being used by hikers and snowmobilers on the entire stretch and bicyclers on the easternmost six miles.

- L. Existing Development - The first seven miles of the trail, from just east of State Trunk Highway #101 at Vicksburg Lane to Stubbs Bay Road, has been developed for all uses. It consists of a main corridor for bicycling, hiking, snowshoeing and snowmobiling. The parallel treadway is designed for horseback riding and cross-country skiing.

The remaining 97 miles, from Stubbs Bay Road to Gluek, have had the ties removed and have been leveled but have not been surfaced. There are areas where the trail is still incomplete.

Parking facilities are minimal. One lot will soon be available for use near Vicksburg Lane. There are plans for other parking lots further down the trail.

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 its present wooded grass-land status to public outdoor recreational use. The lands to be acquired, with the exception of the trail grade itself, will be returned to their natural vegetative communities. Special management techniques will be needed to bring back, as nearly as possible, a vegetative cover similar to the endemic species and to protect and preserve the natural lands that are already there. This will help control erosion and will increase habitat favorable to animal species commonly associated with the area, therefore increasing the wildlife population. This will also improve the trail's aesthetic quality.

Trees and shrubs will be planted along the trail to help eliminate snowmobile noise and to screen the users from the adjacent landowners and to screen the landowners from the users. This will also increase wildlife habitat and add to the trail's aesthetic quality.

Subsequent development of parking lots, picnic areas and camping facilities on acquired land will disturb the vegetation and will cause temporary erosion and noise and air pollution. Culverts will be installed to prevent erosion and allow drainage.

- B. Impact on Historical and Archaeological Resources - No impact is foreseen. Additional sites may be discovered during development activities. The sites may be partially harmed or destroyed by construction. Through an agreement with the State Historical Society (See Appendix), if any new sites are discovered, construction will be halted until the site can be surveyed and it can be determined how significant the site is and what action should be taken. This may involve rerouting the trail, removal of the archaeological materials or continued construction in the case of nonvaluable or insignificant discovery.

- C. Impact on Transportation and Utilities - No impact is foreseen.
- D. Impact on the Tax Base - The tax loss experienced because of acquisition will be minimal. Three of the 10 parcels, 4.4 acres, are still owned by the Chicago Northwestern Railroad which pays a gross income tax. That land not owned by the railroad will be a source of real estate tax loss. This, however, is expected to be very small for each local taxing district since the acquisition is not concentrated in one area but is spread in linear fashion over many miles.
- E. Impact on the Economy - Beneficial impacts on the local economy will be realized. This will result from the local manpower needed to maintain the trail and from the increased trail use which will increase tourist-travel expenditures.
- F. Social Impact - It is expected that with increased trail use there will also be an increase in noise, emanating from the user, and an increase in the incidences of trespassing and littering of adjacent private property by the trail user.

IV. MITIGATING MEASURES INCLUDED IN THE PROPOSED ACTION

In most cases, natural regeneration of vegetation will reduce the need for planting. Planting will be necessary to control soil erosion on side slopes of the grade and in areas disturbed by development. The planting of shrubs and trees will also provide screening between the different treadways of the trail, screen the users from the adjacent landowners and the landowners from the users, lessen snowmobile noise, increase the wildlife population by providing a favorable habitat for small game birds and animals such as rabbits, fox, pheasant, mice, etc., and enhance the trail's esthetic qualities.

Culverts will be installed for drainage and erosion control. Erosion around culverts will be prevented by the use of old railroad ties.

Proper signing of the trail will insure safe operation of the trail and will help control trespassing by trail users, onto adjacent private lands. A "trail boundaries" sign will be placed approximately every fifty rods to indicate common boundaries between the private land and the State-owned land. A "stop" sign will be placed at all road and highway crossings. Users will be notified of an impending stop sign three-hundred feet before it appears. "Danger" signs will indicate an area where caution is necessary such as narrow bridges, cliffs, sharp turns and road crossings. Safety railings and decking will be installed on old trestle bridges.

Litter cans will be placed at access points and waysides to help minimize any litter problem. Litter will be removed by state maintenance workers or contracted refuse collectors on a normal basis.

Noxious weeds growing along the right-of-way will be controlled by State maintenance workers.

Partial mitigation of the adverse social impacts can be accomplished by law enforcement officers. Enforcement of trail rules and regulations will be provided by the Department of Natural Resources' Conservation Officers, as authorized by the Commissioner of Natural Resources' delegation order number 197. In addition, all supervisors, guards, custodians, keepers and caretakers of state trails possess the authority and power of peace officers and can warn, detain and report violators to the conservation officers. County sheriffs and highway patrol officers can warn, detain and arrest violators. Also, money has been appropriated from the Grant-In-Aid Program for local units of government for enforcing laws relating to snowmobiles. Violations will occur on state trails but by using preventive measures, informing the public and effective arrests by conservation officers, sheriffs and highway patrol officers, nuisances can be minimized.

All state employees and private contractors engaged in development of any state trail 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 begin again until confirmation is received from the Minnesota State Historical Society. The Historical Society will determine specific action to be taken to protect valuable archaeological material.

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

Acquisition of land for the trail corridor will result in a tax loss to local taxing units. As previously stated, this is expected to be very minimal since the small amount of land to be purchased is spread out in a linear fashion over many miles.

Disturbance of the natural vegetation will be unavoidable during construction of the trail.

Adverse social impacts are expected. Even though actions will be taken to control trail user nuisances, trespassing and littering of private lands and noise disturbances emanating from trail users will be unavoidable.

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

Short-term uses of the environment as they relate to the maintenance and enhancement of long-term productivity is considered not in terms of years, but rather in terms of what must be sacrificed to gain certain benefits.

<u>Gains</u>	<u>Losses</u>
1. Preservation in perpetuity of about 1,248 acres of open space to provide a variety of outdoor recreational opportunities to trail users.	Loss of tax dollars to local taxing units.
2. Revegetation of 5 acres of land currently in an idle state and proper management of 38.57 acres of wooded land.	Temporary noise and dust disturbances to adjacent landowners due to construction work.
3. Improved wildlife habitat and subsequent increase in number of wildlife species in the area.	Expenditure of \$145,630 of public funds for acquisition of private lands.
4. Control of erosion on trail right-of-way.	Loss of 43.57 acres of potential agricultural or residential land.
5. Stimulation of local economies due to an increase in tourist trade.	

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 trail was originally established.

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 by the Secretary of the Interior must be granted before a change in use of any fund associated lands can be made." LWCF monies are received on a cost sharing basis for acquisition and development on Minnesota recreation areas.

VIII. ALTERNATIVES TO THE PROPOSED ACTION

The Luce Line Trail was authorized by law in 1973. At present, approximately 101 miles of the total 104 authorized miles have been acquired. The only alternatives to the proposed action are no action, acquisition with no development, and project of a larger scope.

- A. No Action - If no action is taken to acquire and maintain these lands, the goal of providing a recreational trail for present trail users and future generations of trail users cannot be accomplished. The trail would remain in partial completion with a loss of some of the benefits of an uninterrupted long distance trail. The full value and use of the parcels of land already acquired would be lost.
- B. Acquisition with No Development - This alternative involves the proposed acquisition of land with no further development. No development would result in vegetative overgrowth and deterioration of the grade as a trail. Since most of the land has already been acquired for trail purposes, such action would result in a waste of previously expended economic resources. Also, if the land is acquired but no development is authorized, the necessary waysides, parking lots and campgrounds for the trail user will not be constructed. The lack of these facilities may result in a limited number of trail users. Without development, the full value and use of the trail as a multi-purpose trail will be lost.
- C. Project of a Larger Scope - This alternative would involve either an addition of miles to the trail itself or the acquisition of adjacent

lands for the development of needed facilities in order to provide additional recreational experiences to the trail users or to enhance the users' experience. The Department has proposed an addition of approximately 20 miles to the existing trail to hook-up the Luce Line and the Minnesota Valley Trails.

PRE-AWARD ON-SITE INSPECTION REPORT

1. State Minnesota Date of Inspection Dec. 7, 1976
 Project No. _____ Project Title Luce Line Trail
 Project Period _____ Type: _____ Acq. _____ Dev. _____ Comb. _____

2. Inspector Thomas Kucera Accompanied by Craig Mitchell
 Title NRS-I Title Trail Planner
 Agency Dept. of Natural Resources Agency Dept. of Natural Resources

3. Prior Inspections: Date _____ Type _____ State _____ Region _____
 Date _____ Type _____ State _____ Region _____

4. Findings

- | | Yes | No |
|---|-----|----|
| (a) Will the project result in the displacement of any persons, businesses, etc? If so, how many? | * | ✓ |
| (b) Is the project located on or adjacent to an historic site? | * | ✓ |
| (c) Is the project located adjacent to a national wildlife area, national fish hatchery, or areas under the small waterfowl production program? | * | ✓ |

*Explain below.

General Features

1. List the primary topographic features and present use of the site and surrounding area (stream, lake, forests, beach, terrain, etc.).

Site: The site is a 10.4 mile stretch of abandoned Chicago and Northwestern Railroad grade. Topography of the grade is nearly level and the grade itself has been designated as part of the state corridor trail system, and most of the grade presently used for multi-purpose recreational trail purposes. Surrounding Areas:

Topography of the surrounding areas is generally flat to gently rolling. The present primary surrounding land use of the easterly 3.0 miles of so is forested. The predominant use becomes more open and agricultural further west.

2. Is the site generally as described in the project proposal?

The site is as generally described in the project proposal.

3. Is there reason to believe that this proposal will cause a significant impact on the human environment? Is the anticipated use compatible with surrounding lands? Explain.

The proposal will not result in any significant impacts on the human environment. The anticipated recreational trail uses are not incompatible with existing surrounding land uses.

4. List the major existing facilities and/or improvements on the site:

No major existing facilities are located on the site. Existing recreational trail site improvements include complete ~~to~~ trail development of the easterly 7 miles, for intended uses, and leveling of much of the remaining 97 miles.

5. Is there a possibility of income accruing from the sale or rental structures; the sale of timber; the lease or rental of land. Explain if yes.

There is no possibility of income accruing from the sale or rental of structures, the sale of timber, or the lease or rental of land.

6. Types of outdoor recreation activities suitable for the area:

Swimming _____ Camping ☒ Picnicking ☒ Boating _____ Fishing _____
Play and Sports Area _____ Hunting _____ Hiking ☒ Other ☒

7. What is the recreation potential of the site based on natural features:
Excellent _____ Good ☒ Fair _____ Poor _____

8. What is the recreation potential of the site based on the planned development:
Excellent ☒ Good _____ Fair _____ Poor _____

9. Water quality on and adjacent to the area:
Excellent _____ Good ☒ Fair _____ Poor _____

10. List all environmental intrusions on and adjacent to the site. Describe what effect they will have on the recreational use of the area.

The presence of several residential developments adjacent to the site may impose some snowmobile use restrictions in these areas. Such developments as well as the trail intersection with a number of primary and secondary roadways and several transmission lines may have a minimal aesthetic effect on the trail user. This however will not likely affect the recreational use of the trail.

11. Is there evidence of safety or health hazards on or adjacent to the site?

There is a potential safety hazards at points where the trail crosses a well used primary or secondary roadway. To eliminate or minimize potential hazards, all trail crossings will be properly posted in order to give trail users prior warning of the approaching crossing. These crossings may further be posted to alert motorists of them.

12. Describe the accessibility of the area:

The area is easily accessible via a rather extensive system of primary and secondary highways which are adjacent to the area and/or directly provide access to the trail.

13. Are there private recreation facilities in the vicinity with which the project may be competing.

There are no private recreation facilities within the vicinity with which the project may be competing.

14. List any unique or otherwise significant characteristics on the site that might affect the value or cause development difficulties.

There are no such characteristics which may affect the value of the site or cause site development difficulties.

Notes to future inspectors:

Signature

Thomas P. Luma
Inspector

Date

Dec. 14, 1976

Attach photographs, if available. Provide descriptive captions.

Parcel	Acreage	acquisition Amount	Justification	Legal	Name
8A	7.1	\$67,000	Parking, trail center, campground PRIVILEGE PIT & WOODED	Sec. 32, Twp 118, R. 22	Kreaty, Robert + George
11	3.2	9,130	Connect trail to Vicksburg Lane Connects trail to trail parking lot. R-O-W		Railroad
13	1.4	1,000	R-O-W		Gordon Paske
14	1.8	3,600	R-O-W		Dwayne Billbe
15	.4	2,800	To provide a grade level trail crossing at Old Long Lake in Orono. WILD		
16	2.0	7,000	WILD	Sec. 2, Twp. 117, Range 23	Dwayne Billbe
17	1.2	20,000	WOODED	NW 1/4, NE 1/4 Sec. 5, Twp 117, Range 23	A.M. Bongart
18	.97	3,000	assist in property management. ITAL	Sec. 5, Twp. 117, Range 23	Hennepin Cty, Gordon Pamm
19	19	0	Picnic + camping Facilities Wooded	Sec. 4, Twp 117M, Range 23W	Anne Ni Soropulus
20	144	48,400	Camping		

1200 acres
100 miles

LAND ACQUISITION FACT SHEET

PLANNING AND OPERATIONS

I. Project Name: Luce Line Trail County Hennepin

II. Owner Information.

- A. Tract No. 8A.
- B. Owner's Name Kreatz, Robert & George
- C. Address 5747 W. Broadway
- D. City Mpls State MN Zip Code 55428
- E. Is owner a willing seller? Yes ☒ No ☐
- F. Date owner was contacted Aug 28 '74 Name of individual who made contact. Larry Ritter
- G. Will acquisition result in dislocation of owner or tenant? Yes ☐ No ☒
- H. Estimate value of relocation benefits. \$ —

III. Land Data.

- A. State Authority.
1. Cite Legal Authority for acquisition M.S. 85.015
 2. Have all legal requirements been complied with? yes
- B. Type of interest to be acquired. Fee ☒ Lease ☐
Easement ☐ County Resolution ☐

C. Acres to be acquired 7.1

D. Legal description of property:

Beginning at intersection of north line of Lot 6 and the north line of right of way of Mpls. Ind. R.R.; thence west along north line of Lot 6 770 feet; to a point 66 feet east of SW cor. of NE quarter of Sect. 32; thence deflected 50°00' a distance of 510' to a point on the north right of way of Mpls. Ind. R.R.; thence NE Sec. 32 Twp. 118 Range 22 along north line 1165' to the point of beginning.

E. Priority rating —

F. Justification for purchase and quality of land:

parking, trail center and possible campground.

G. Name, Address and Telephone No. of Fieldman to be contacted.

Jim Bloemendal 296-4779
320 Centennial Bldg

IV. A. Funds for this acquisition available from Resource 2000

B. Commissioners estimated maximum amount to be paid not including relocation. \$ 67,000

V. Approval.

Regional Administrator

Date

[Signature] 7-28-75
Division Director Date

VI. A. Date forwarded to Bureau of Land 7-28-75

B. Date received by Bureau of Land 7-28-75 By LAN

VII. If property not obtainable, please explain problem:

Signature

PLANNING AND OPERATIONS

I. Project Name: LUKE LINE TRAIL County HENNEPIN

II. Owner Information.

- A. Tract No. 11
- B. Owner's Name CHICAGO & NORTHWESTERN RAILROAD
- C. Address 275 E. 4th STREET ATT. JIM HEIDKAMP
227-5222
- D. City ST. PAUL State MN Zip Code 55101
- E. Is owner a willing seller? Yes ☒ No ☐
- F. Date owner was contacted March '75 Name of individual who made contact JIM BLOEMENDAL
- G. Will acquisition result in dislocation of owner or tenant? Yes ☐ No ☒
- H. Estimate value of relocation benefits. \$

III. Land Data

- A. State Authority
- Cite Legal Authority for acquisition M.S. 85.015
 - Have all legal requirements been complied with? YES
- B. Type of interest to be acquired. Fee ☒ Lease ☐
Easement ☐ County Resolution ☐ Other ☐
- C. Acres to be acquired ± 3 acres
- D. Legal description of property: A STRIP OF LAND ONE HUNDRED (100) FEET IN WIDTH LOCATED UPON AND ACROSS GOV'T LOT (5) & (6), SECT. THIRTY TWO (32) TWP ONE HUNDRED EIGHTEEN (118) NORTH RANGE TWENTY-TWO (22) WEST, COMMENCING AT THE NE CORNER OF SAID LOT SIX (6); THENCE SOUTH ON THE EAST LINE OF SAID LOT, FORTY TWO (42) FEET; THENCE SOUTHWESTERLY ON A CURVE CONCAVE TO THE SOUTH WITH A RADIUS OF 2,864.93 FEET, 1,040 FEET TO POINT OF TANGENT THENCE SOUTHWESTERLY ON SAID TANGENT 269 FEET THENCE NORTHERLY 90° 100 FEET; THENCE NORTHEASTERLY 100 FEET PARALLEL WITH ABOVE DESCRIBED LINE Sec. 32 Twp. 118N Range 22W TO A POINT 100' NORTH OF THE POINT OF BEGINNING; THENCE SOUTHERLY 100' TO BEGINNING.
- E. Priority rating

COPIES SENT BY: DDH

COPIES SENT BY: kne

DATE: 9-16-75

DATE: 11-18-75

TO: Dept. of Administration
& ~~Don Carlson~~ Don Carlson

TO: Dept. of Administration

(over)

~~TRAINING AND OPERATIONS~~

Signature

PLANNING AND OPERATIONS

1. Project Name: LUCE LINE TRAIL County HENRIE PIN

II. Owner Information.

A. Tract No. 13 .

B. Owner's Name GORDON PASKE (ADMINISTRATOR)

C. Address 250 NO. CENTRAL AVE

D. City WAYZATA State MN Zip Code 55391

E. Is owner a willing seller? Yes ☒ No ☒

F. Date owner was contacted 8-21-75 Name of individual who made contact. JIM BLOEMENDAL

G. Will acquisition result in dislocation of owner or tenant?
Yes No ✓

H. Estimate value of relocation benefits. \$ —

III. Land Data.

A. *State Authority.*

1. Cite Legal Authority for acquisition MN. STAT. 85.015

2. Have all legal requirements been complied with? YES

B. Type of interest to be acquired. Fee ✓ Lease _____
Easement _____ County Resolution _____

C. Acres to be acquired 1.4

D. Legal description of property: A STRIP OF LAND 43' IN WIDTH IN THE NE $\frac{1}{4}$ OF THE NE $\frac{1}{4}$ SECT. 3, T4P117, R4 23 DESCRIBED: COMMENCING AT A POINT ON THE EAST LINE OF SAID $\frac{1}{4}$ - $\frac{1}{4}$, 457.5' SOUTH OF THE NE CORNER OF SECT 3, RUNNING SOUTH ON A LINE 67°10' WEST 570.5'; THENCE SOUTHWESTERLY ON A RIGHT CURVE WITH RADIUS OF 5,729.65' A DISTANCE OF 833.45' TO A POINT ON THE WEST LINE OF SAID $\frac{1}{4}$ - $\frac{1}{4}$ A DISTANCE 368' NORTH OF THE SW CORNER OF SAID $\frac{1}{4}$ - $\frac{1}{4}$ SECTION; THENCE RUNNING NORTH 43' ALONG THE WEST LINE OF SAID $\frac{1}{4}$ - $\frac{1}{4}$; THENCE RUNNING NORTHEASTERLY PARALLEL TO SAID LINE TO A POINT ON THE EAST LINE OF SAID $\frac{1}{4}$ - $\frac{1}{4}$; THENCE SOUTH TO POINT OF BEGINNING.

Sec. 3 Twp. 117 Range 23

E! Priority rating

COPIES SENT BY: one

DATE: 11-18-75

77: Dept of Administration

(over)

DEPT. OF ADMINISTRATION

Signature

PLANNING AND OPERATIONS

I. Project Name: LUCE LINE TRAIL County HENNEPIN

II. Owner Information.

- A. Tract No. 14.
- B. Owner's Name DWAYNE BILLBE (ADMINISTRATOR)
- C. Address 1200 CARGILL BLDG. PHONE 330-7417
- D. City Mpls State MN Zip Code 55402
- E. Is owner a willing seller? Yes ☒ No ☒
- F. Date owner was contacted 8-21-75 Name of individual who made contact. JIM BLOEMENDAL
- G. Will acquisition result in dislocation of owner or tenant? Yes ☐ No ☒
- H. Estimate value of relocation benefits. \$ —

III. Land Data.

- A. State Authority.
1. Cite Legal Authority for acquisition MN. STAT. 85.015
 2. Have all legal requirements been complied with? YES
- B. Type of interest to be acquired. Fee ☒ Lease ☐
Easement ☐ County Resolution ☐
- C. Acres to be acquired 1.8

D. Legal description of property: A STRIP OF LAND 57' IN WIDTH IN THE NE $\frac{1}{4}$ OF THE NE $\frac{1}{4}$ SECT. 3, TWP 117, R4 23 DESCRIBED: COMMENCING AT A POINT ON THE EAST LINE OF SAID $\frac{1}{4}$ - $\frac{1}{4}$, 457.5' SOUTH OF THE NE CORNER OF SECT 3; RUNNING SOUTH ON A LINE $67^{\circ}10'$ WEST 570.5'; THENCE SOUTHWESTERLY ON A RT. CURVE WITH RADIUS OF 5,729.65' A DISTANCE OF 833.95' TO A POINT ON THE WEST LINE OF SAID $\frac{1}{4}$ - $\frac{1}{4}$ A DISTANCE 368' NORTH OF THE SW CORNER OF SAID $\frac{1}{4}$ - $\frac{1}{4}$ SECTION; THENCE SOUTH 57' ALONG THE WEST LINE OF SAID $\frac{1}{4}$ - $\frac{1}{4}$; THENCE RUNNING NORTHEASTERLY PARALLEL TO SAID LINE TO A POINT ON THE EAST LINE OF SAID $\frac{1}{4}$ - $\frac{1}{4}$; THENCE NORTH 57' TO POINT OF BEGINNING.

Sec. 3 Twp. 117 Range 23

E! Priority rating

COPIES SENT BY: lme

DATE: 11-18-75

TO: Dept. of Administration

WITHOUT THIS LAND THE LUCE LINE TRAIL WILL BE SEPARATED AS SHOWN ON THE ATTACHED MAP. THE FORMER RAILROAD BED & FILL IS STILL IN PLACE AND THIS ROUTE IS THE SHORTEST DISTANCE BETWEEN THE EXISTING STATE TRAIL OWNERSHIP.

JIM BLOEMENDAL, 320 CENTENNIAL BLDG
ST. PAUL 55155, 296-4779

B. Commissioners estimated maximum amount to be paid not including relocation. \$ 1250


 Division Director

9-25-75
 Date

B. Date received by Bureau of Land _____ By _____

Signature

F. Justification for purchase and quality of land:
NEED TO LINK EXISTING TRAIL OWNERSHIP.
WITHOUT THIS PROPERTY THE TRAIL IS INCOMPLETE.

PLANNING AND OPERATIONS

I. Project Name: LUCE LINE TRAIL County HENNEPIN

II. Owner Information.

- A. Tract No. 15.
- B. Owner's Name DWAYNE BILLBE (ADMINISTRATOR)
- C. Address 1200 CARGILL BLDG
- D. City MPLS State MN Zip Code 55402
- E. Is owner a willing seller? Yes ☒ No ☒ ?
- F. Date owner was contacted 8-21-75 Name of individual who made contact. JIM BLOEMENDAL
- G. Will acquisition result in dislocation of owner or tenant? Yes ☐ No ☒
- H. Estimate value of relocation benefits. \$ ~

III. Land Data.

- A. State Authority.
1. Cite Legal Authority for acquisition MN STAT. 85.015
 2. Have all legal requirements been complied with? YES
- B. Type of interest to be acquired. Fee ☒ Lease ☐
Easement ☐ County Resolution ☐
- C. Acres to be acquired .4
- D. Legal description of property: SEE ATTACHED SHEET.

Sec. 2 Twp. 117 Range 23

E. Priority rating

COPIES SENT BY: hmc

DATE: 11-18-75

TO: Dept. of Administration

F. Justification for purchase and quality of land:

THIS STRIP OF LAND IS NEEDED TO PROVIDE FOR A GRADE LEVEL TRAIL CROSSING AT OLD LONG LAKE IN ORONO. WITHOUT THIS PROPERTY EXTENSIVE EARTH WORK CONSTRUCTION OR BRIDGE CONSTRUCTION WOULD BE NECESSARY. THIS PROPERTY SHOULD BE PURCHASED IF CHEAPER THAN THE OTHER TWO ALTERNATIVES.

G. Name, Address and Telephone No. of Fieldman to be contacted.

JIM BLOEMENDAL, 320 CENTENNIAL BLDG

ST. PAUL 55155, 296-4779

IV. A. Funds for this acquisition available from RESOURCE 2000

B. Commissioners estimated maximum amount to be paid not including relocation. \$ 2000

V. Approval.

Regional Administrator

Date

Division Director

Date

9-25-75

VI. A. Date forwarded to Bureau of Land

B. Date received by Bureau of Land

By

VII. If property not obtainable, please explain problem:

Signature

PLANNING AND OPERATIONS

I. Project Name: LUCE LINE TRAIL County HENNEPIN

II. Owner Information.

A. Tract No. 16.

B. Owner's Name DWAYNE BILLBE (ADMINISTRATOR)

C. Address 1200 CARGILL BLDG

D. City MAPLE State MN Zip Code 55402

E. Is owner a willing seller? Yes ☒ No ☒

F. Date owner was contacted 8-21-75 Name of individual who made contact. JIM BLOEMENDAL

G. Will acquisition result in dislocation of owner or tenant? Yes ☐ No ☒

H. Estimate value of relocation benefits. \$ -

III. Land Data.

A. State Authority.

1. Cite Legal Authority for acquisition MN STAT 85.015
2. Have all legal requirements been complied with? YES

B. Type of interest to be acquired. Fee ☒ Lease ☐
Easement ☐ County Resolution ☐

C. Acres to be acquired 2.0

D. Legal description of property: SEE ATTACHED SHEET

Sec. 2 Twp. 117 Range 23

E! Priority rating _____

COPIES SENT BY: lme

DATE: 11-18-75

TO: Dept. of Administration

0001
7-4-75

107
Region Request No.

DEPARTMENT OF NATURAL RESOURCES
LAND ACQUISITION FACT SHEET

PLANNING AND OPERATIONS

I. Project Name: Luce Line Trail County Hennepin

II. Owner Information.

A. Parcel No. 17

B. Owner's Name A.M. Bongart

C. Address 3415 High Lane Phone: 473-6087

D. City Orono State Minnesota Zip Code 55356

E. Is owner a willing seller? Yes X No

F. Date owner was contacted April; 1976 Name of individual who made contact Jim Bloemendaal

G. Will acquisition result in dislocation of owner or tenant?
Yes No X

H. Estimate value of relocation benefits. \$ None

III. Land Data

A. State Authority

1. Cite Legal Authority for acquisition M.S. 85.015

2. Have all legal requirements been complied with? Yes

B. Type of interest to be acquired. Fee X Lease
Easement County Resolution Other

C. Acres to be acquired 1.2

D. Legal description of property:

Part of the NW 1/4 NE 1/4 or Platt #41440, Parcel #4600 as shown on the attached plat map in green.

Sec. 5 Twp. 117 Range 23

E. Priority rating Top

(over)

11-3-76
2014

F. Justification for purchase and quality of land:

This property is needed for development of a trail parking lot. This particular location is important because this area is the starting point for snowmobiles and is serviced by a State Grants-In-Aid Trail which comes from Lake Minnetonka. In addition, the state owns right of way in excess of the normal 100' wide right of way that will complement this property.

G. Name, Address and Telephone No. of Fieldman to be contacted.

Craig R. Mitchell 296-4779

320 Centennial Building, St. Paul, Minnesota 55155

IV. A. Funds for this acquisition available from: Resource 2000 X ;
L.C.M.R. _____ ; Other _____

B. Commissioners estimated maximum amount to be paid not including relocation. \$ 20,000

V. Approval.

Wm. L. Mitchell 10-22-76 Wm. L. Mitchell 10-27-76
Regional Administrator Date Division Director Date

VI. A. Date forwarded to Bureau of Land 10-27-76

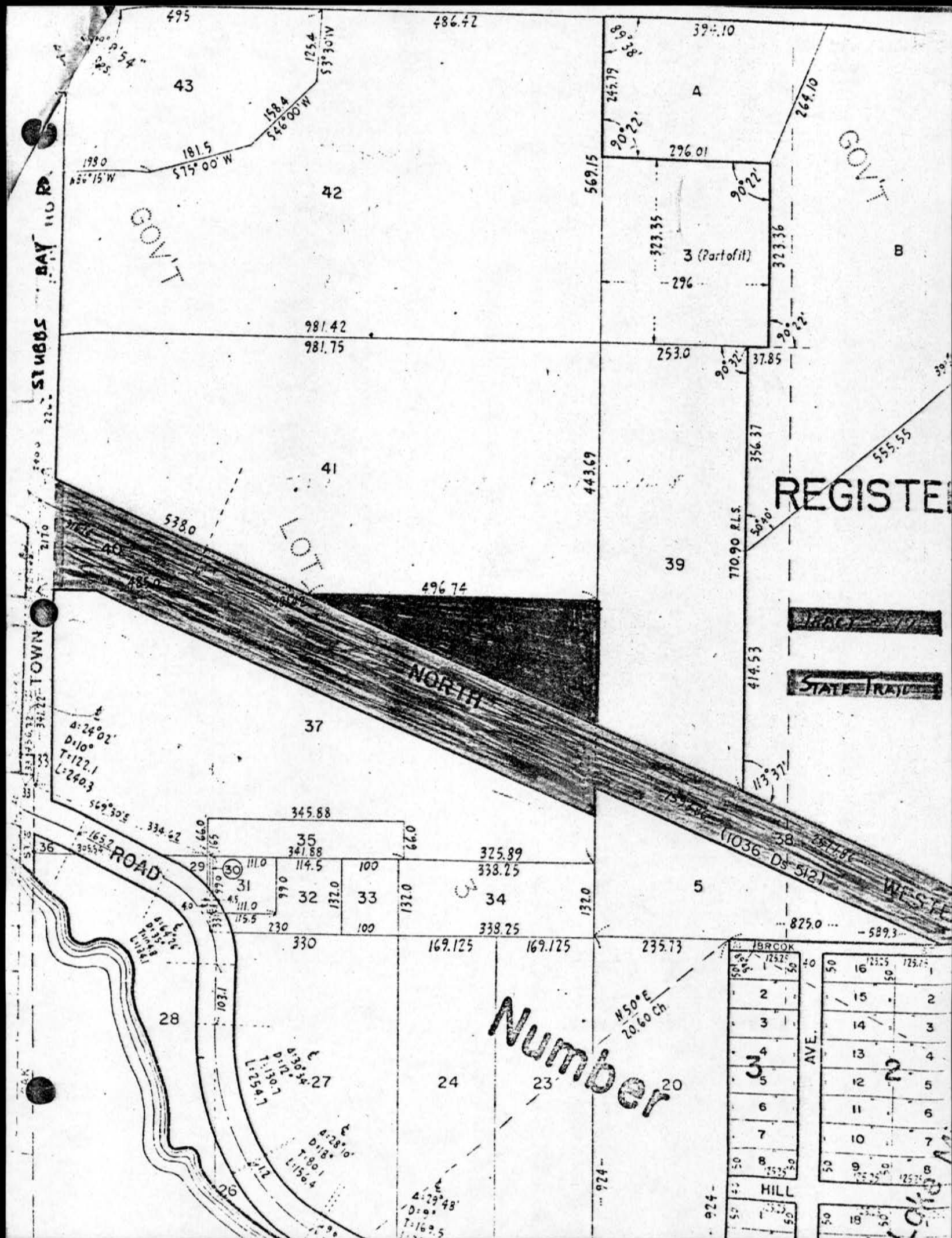
B. Date received by Bureau of Land

RECEIVED
OCT 27 1976

By _____

VII. If property is not obtainable, please explain problem. ACO & ERO SUBJECT.

Signature



DEPARTMENT OF NATURAL RESOURCES
LAND ACQUISITION FACT SHEET

PLANNING AND OPERATIONS

I. Project Name: Luce Line Trail County Hennepin

II. Owner Information.

A. Tract No. 18

B. Owner's Name Hennepin County, Mr. Gordon Ramm

C. Address Tax Forfeited Land Unit, 6th Floor-Adm. Tower, Gov't Center

D. City Mpls. State Mn. Zip Code 55487
Phone - 348-3734

E. Is owner a willing seller? Yes X No

F. Date owner was contacted 3-23-76 Name of individual who
made contact Jim Bloemendal

G. Will acquisition result in dislocation of owner or tenant?
Yes No X

H. Estimate value of relocation benefits. \$

III. Land Data

A. State Authority

1. Cite Legal Authority for acquisition Mn. St. 85.015
2. Have all legal requirements been complied with? yes

B. Type of interest to be acquired. Fee X Lease
Easement County Resolution X Other

C. Acres to be acquired .97

D. Legal description of property: That part of Lot 44 lying NEly of a line commencing at a point in the East line of SE $\frac{1}{4}$ of NE $\frac{1}{4}$ of NW $\frac{1}{4}$ of Section 5, Township 117, Range 23, distance 153 ft. S from the NE corner thof th WNly 131 ft along a line if extended would intersect the Nline of said SE $\frac{1}{4}$ of NE $\frac{1}{4}$ of NW $\frac{1}{4}$ at a pt distant 317 ft W from the NE corner thof, thence at Right angles SWly 14 ft. thence at right angles NWly 220 99/100 ft thence right angles NEly 14 ft to N line of said SE $\frac{1}{4}$ of NE $\frac{1}{4}$ of NW $\frac{1}{4}$ of Auditors Subdivision No. 203. Sec. 5 Twp. 117 Range 23

E. Priority rating One

F. Justification for purchase and quality of land:

This property is contiguous to the Luce Line Trail and will eliminate a trail restriction and odd shaped boundary to assist in property management and facilitate the use of the trail by the recreatin public.

G. Name, Address and Telephone No. of Fieldman to be contacted.

Jim Bloemendal, Land Specialist

1200 Warner Road, St. Paul 55106

IV. A. Funds for this acquisition available from: Resource 2000 X ;
L.C.M.R. _____; Other or County Donation

B. Commissioners estimated maximum amount to be paid not including relocation. \$ 3,000

nmw
p v. Approval.

[Signature]
Regional Administrator

5/4/76
Date

[Signature]
Division Director

Date

942
May 51 1976

VI. A. Date forwarded to Bureau of Land 5-11-76

B. Date received by Bureau of Land _____ By _____

VII. If property is not obtainable, please explain problem:

Signature

DEPARTMENT OF NATURAL RESOURCES
LAND ACQUISITION FACT SHEET

PLANNING AND OPERATIONS

I. Project Name: Luce Line Trail County Hennepin

II. Owner Information.

A. Parcel No. 19

B. Owner's Name Anne Niforopulos

C. Address 3960 Walden Shores Road

D. City Wayzata State Minn. Zip Code 55391

E. Is owner a willing seller? Yes X No

F. Date owner was contacted Oct. 13, 1976 Name of individual who made contact Don Dexter

G. Will acquisition result in dislocation of owner or tenant?
Yes No X

H. Estimate value of relocation benefits. \$ None

III. Land Data

A. State Authority (Gift for tax purposes)
1. Cite Legal Authority for acquisition M.S. 85.015 Subd. 10
2. Have all legal requirements been complied with? Yes

B. Type of interest to be acquired. Fee X Lease
Easement County Resolution Other

C. Acres to be acquired 19.0 ±

D. Legal description of property: See Attached Sheet

Sec. 4 Twp. 117N Range 23W

E. Priority rating 1

(over)

F. Justification for purchase and quality of land:

This property is needed for the development of picnic and camping facilities. Because of the high percentage of farm land along the trail, desirable wooded areas such as this are few. This parcel is being purchased by Mrs. Niforopulis and in turn she is going to donate the majority to the State for tax purposes.

G. Name, Address and Telephone No. of Fieldman to be contacted.

Craig R. Mitchell

196 Centennial Building, St. Paul, Minnesota 55155

IV. A. Funds for this acquisition available from: Resource 2000 X; L.C.M.R. _____; Other _____

B. Commissioners estimated maximum amount to be paid not including relocation. \$ 0

V. Approval.

[Signature]
Regional Administrator

11-1-76
Date

[Signature]
Division Director

11/9/76
Date

VI. A. Date forwarded to Bureau of Land

B. Date received by Bureau of Land

RECEIVED
NOV 10 1976

By

ACQ. & EXCH. SECT.

VII. If property is not obtainable, please explain problem:

Signature



STATE OF
MINNESOTA
DEPARTMENT OF NATURAL RESOURCES

CENTENNIAL OFFICE BUILDING • ST. PAUL, MINNESOTA • 55155

DNR INFORMATION
(612) 296-6157

Thank you very much for your interest in the Luce Line Trail. Enclosed you will find two maps. The first illustrates the entire trail from Plymouth, Minnesota to Gluek. The second shows the first 20-mile segment from Plymouth to Watertown, Minnesota.

The first 7 miles extending from just east of State Trunk Highway #101 at Vicksburg Lane to Stubbs Bay Road, consists of a main corridor and a parallel treadway. The corridor may be used for bicycling and hiking during the summer months and cross-country skiing and snowshoeing in the winter months. This fall a limestone surface has been placed on this portion of the trail. The separate treadway is designed for horseback riding during both seasons. ALL motorized vehicles are restricted from this section.

The remaining 97 miles from Stubbs Bay Road to Gluek, Minnesota, contain only one main corridor. We are presently removing ties and leveling the grade in this section for use of snowmobilers during the winter months, while hikers, bicyclists, and horseback riders may utilize the trail during the summer months. We plan to develop the parallel treadway in this area in the near future. This treadway will then permit equestrian use in the summer and cross-country skiing in the winter. All motorized vehicles EXCEPT snowmobiles are restricted from this section of the trail.

Parking facilities at the present time are minimal. A parking lot is being constructed this fall near Vicksburg Lane and other possibilities are being considered.

The Luce Line is still in stages of development. There are areas of incompleteness, and this should be kept in mind when using the trail.

If you have any further questions or comments regarding the trail, please feel free to contact me at any time.

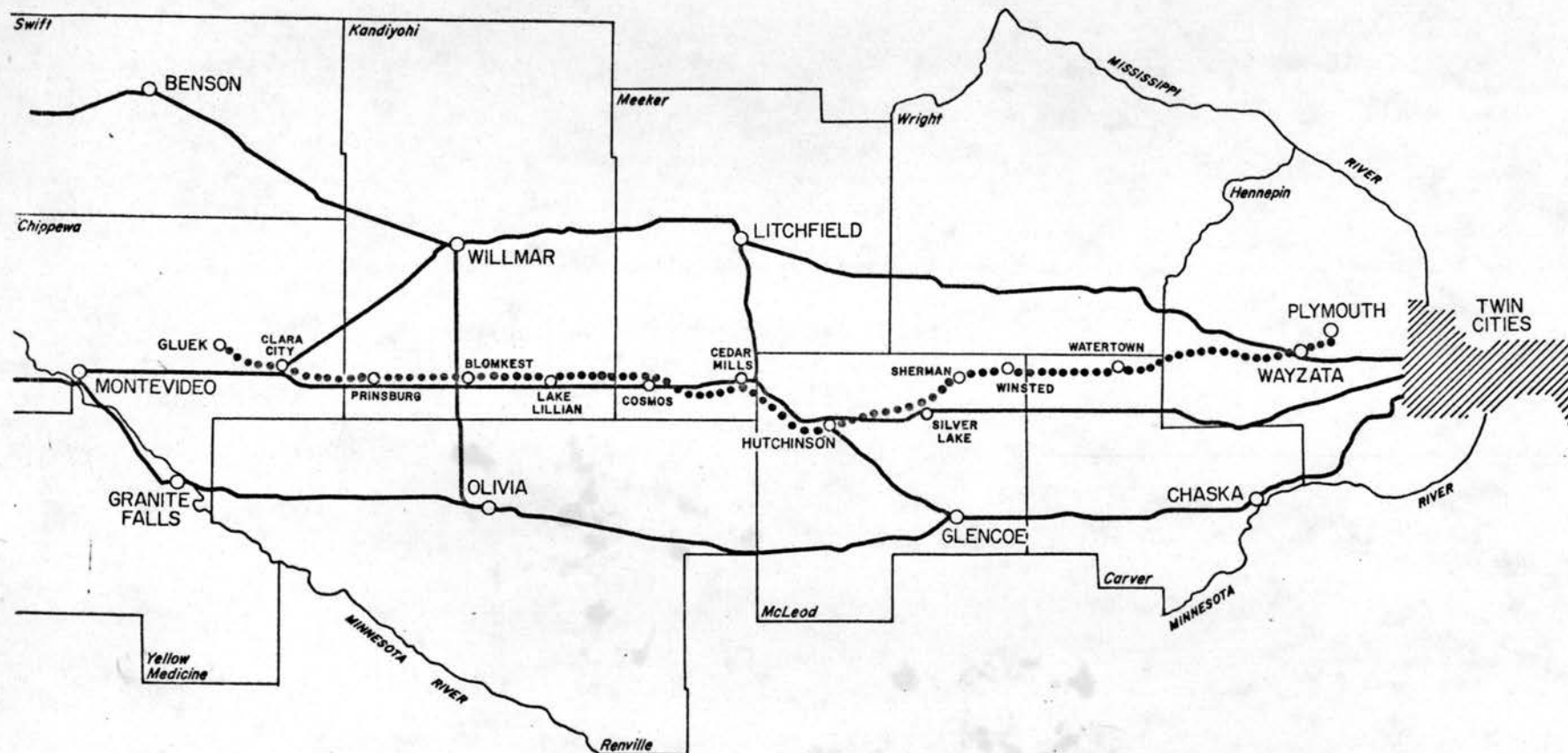
Yours very truly,

Don D. Davison, Director
DIVISION OF PARKS & RECREATION

By: Craig Mitchell
Trail Planner

CM:dg

Enclosures

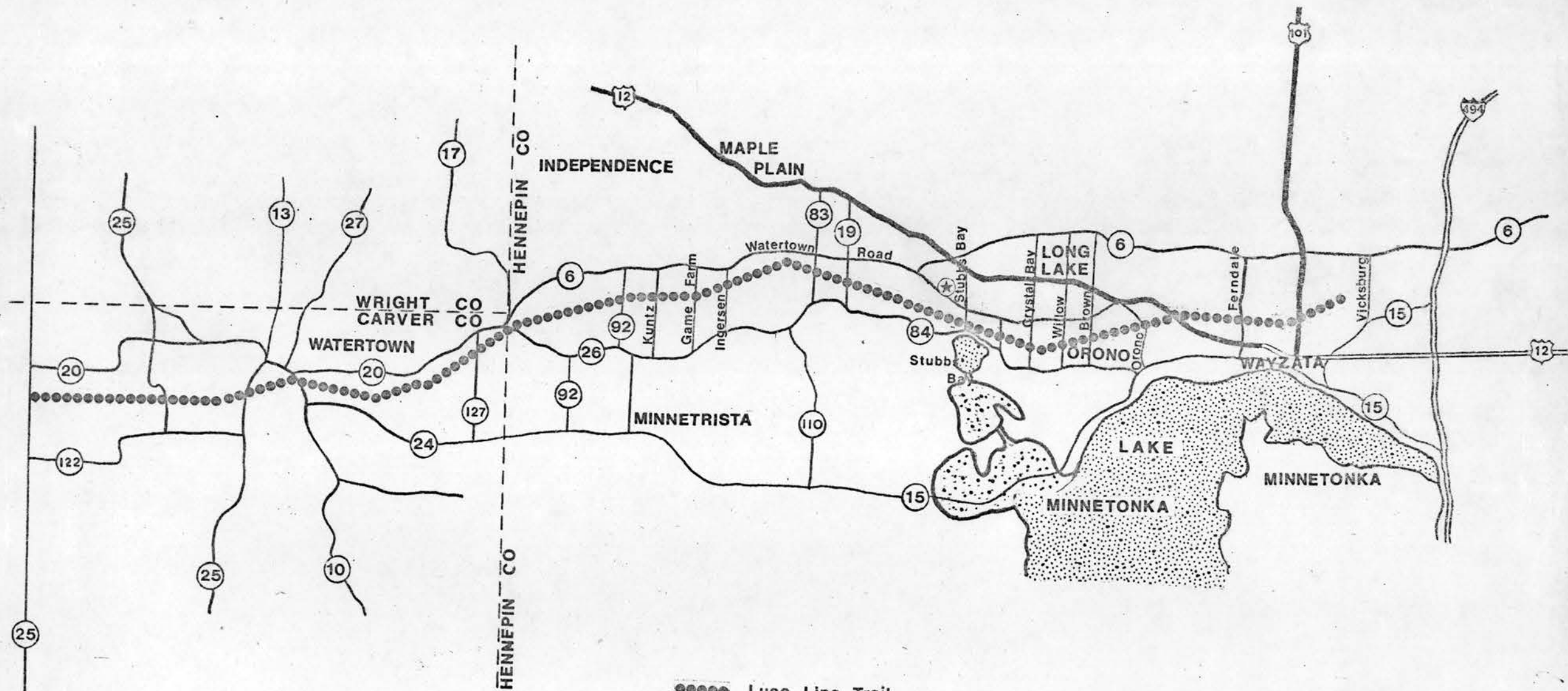


SCALE: ONE INCH EQUALS 16.0 MILES

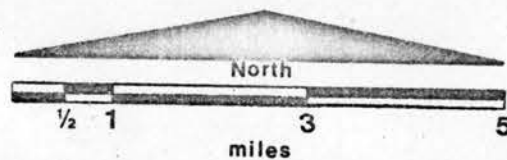
Drawn by : MINN. DEPT. OF NATURAL RESOURCES
BUREAU OF ENGINEERING
JULY 11, 1973

..... **Luce Line Trail**

from Plymouth to Gluek



- Luce Line Trail
- ★ D. N. R. Warehouse



Luce Line Trail from Plymouth to Watertown

Drawn by; MINN. DEPT. NATURAL RESOURCES
PARKS AND RECREATION
TRAILS STAFF
JULY 1, 1975

II. Luce Line Analysis

This analysis of the Luce Line Trail and designated management area supports the DNR's recommendation that the trail be included in Minnesota's Outdoor Recreation System.

The analysis also provides supportive evidence that ~~for~~^{fullfills} the criteria for state trails as defined by the Outdoor Recreation Act of 1975 Section 5, Subdivision 4.

(a) A state trail shall be established to provide a recreational travel route which connects units of the outdoor recreation system or the national trail system, provides access to or passage through other areas which have significant scenic, historic, scientific, or recreational qualities or reestablishes or permits travel along an historically prominent travel route or which provides commuter transportation.

(b) No unit shall be authorized as a state trail unless its proposed location substantially satisfies the following criteria:

(1) Permits travel in an appropriate manner along a route which provides at least one of the following recreational opportunities:

(i) Travel along a route which connects areas or points of natural, scientific cultural and historic interest;

(ii) Travel through an area which possesses outstanding scenic beauty;

(iii) Travel over a route designed to enhance and utilize the unique qualities of a particular manner of travel in harmony with the natural environment;

(iv) Travel along a route which is historically significant as a route of migration, commerce, or communication;

(v) Travel between units of the state outdoor recreation system or the national trail system; and

(2) Utilizes, to the greatest extent possible consistent with the purposes of this subdivision, public lands, right-of-way, and the like; and

(3) Provides maximum potential for the appreciation, conservation, and enjoyment of significant scenic, historical, natural, or cultural qualities of the areas through which the trail may pass; and

(4) Takes into consideration predicted public demand and future use.

Information compiled in this study by the DNR will be utilized in developing and managing the Luce Line Trail. Future environmental ~~assessments~~^{assessments} or impacts will be based on or compared with this extensive study.

STUDY CONCLUSIONS

It is the DNR's finding that the following "significant scenic, natural, scientific, and historic values" qualify the Luce Line for inclusion to and protection under the Outdoor Recreation Act of 1975.

Scenic, Natural, and Scientific

The Luce Line Trail, heading west from its origin in Plymouth, Minnesota, has a variety of unique amenities. It literally passes through two major ^{"man-affected"} biomes offering an array of scenic, natural, and scientific areas not found on any other trail.

These two biomes constitute stages of succession that will be of interest for vegetation and wildlife study today and in the future. Since man will continue to encroach upon the natural environment, ^{especially from agricultural purposes,} preservation is needed of this right-of-way for scenic, natural and scientific reasons.

I immediately at the eastern origin of the trail, deciduous hardwood forest still existing from the historical "Big Woods" provides scenic vistas on both sides of the trail. This remaining hardwood forest extends westward for over 30 miles along the Luce Line Trail. Many clearings, both man-made and natural, permit the trail user to gaze upon the ~~scenic~~ scenery or even wildlife such as a deer bounding off in the distance.

Further down the trail, the vegetation gradually changes toward grassland. This area is an interphase of the two biomes called a transition zone. Large stands of trees are minimal, however, this lets the trail-user clearly see and appreciate the rolling "Brushland". Many lakes, marshes, and sloughs are located along the trail to enhance the beauty of this area, ~~even more~~. These ~~areas are~~ ^{lakes, marshes and sloughs} are tremendous for wildlife production such as pheasants, rabbits, ducks, deer, herons, and so on.

As one heads further west leaving the "Brushland" transition zone, grassland biome engulfs the trail. It is here where an endangered habitat exists - prairieland. Even though most of the land has been converted to agriculture use, "prairie vistas" of both wet and dry prairie can still be observed and/or envisioned. These "prairie vistas" will be perpetuated for generations to come. Once again, the ^{will be} opportunities to ^{observe} see wildlife, especially after agricultural encroachment is ~~reduced~~ ^{minimized}, ~~will be great~~.

Historical

The Luce Line Trail closely approximates the path used by the Dakota Indians nearly two centuries ago. Located along the trail are historical points of interest including events of the Sioux Uprising. In addition, the background and fate of the original railroad is of historical significance and a small part of our Minnesota Pioneer heritage.

Recreational

The Luce Line Trail and its adjacent lands also possess outstanding recreational values. The trail itself will provide where feasible and/or compatible opportunities for many trail-use types. Along varying segments of the 104 mile, 100 ft. wide Luce Line Trail will be the following activities: snowmobiling and ski-touring (seasonal treadways), hiking or backpacking, bicycling and horseback-riding (also seasonal treadways), snowshoeing and even pleasure walking. Hunting along the trail is a possibility since it is 100 ft. wide and has assorted lakes

and other game producing habitat.

In conclusion, the Luce Line ^{Trail} scenic, natural, scientific historical, and recreational values qualify it for inclusion in the Minnesota Outdoor Recreation System.

The following analysis more fully describes these values just mentioned via Regional Perspectives, Socio Economic Aspects, and Natural Resource Amenities of the Luce Line trail management area.

~~_____~~

A. a. The Bill (summary)

In 1973, the legislative session of Minnesota passed the Luce Line Trail Bill. This law gave the Commissioner of Natural Resources the authority to establish a state corridor trail from Plymouth Village in Hennepin County, west along the abandoned Chicago and Northwestern Railroad (see map).

The bill states that the trail shall be developed for multi-use wherever feasible, and that the Department of Natural Resources shall cooperate with local units of government in determining the type of use permitted on the trail. In establishing, developing, maintaining, and operating the trail, the Commissioner shall cooperate with local units of government, private individuals and groups. Before acquiring any parcel of land for the trail, the Commissioner shall develop a management program for the parcel and conduct a public hearing on the proposed management program in the vicinity of the parcel to be acquired. (See appedix-Luce Line Bill).

B Public Involvement
Communication with Involved Public and Private Agencies

Pr ~~The 1973 Legislature authorized the establishment of the Luce Line Trail and required the Commissioner of Natural Resources~~ ^{*The*} ~~to prepare a management program for submittal to public hearings before acquiring any property for the trail.~~ ^{*was required to*} ~~A proposed management program for the trail was publicly presented at hearings held at the following places and times:~~

1. Hennepin County - Orono Middle School on 9-20-73 at 8:00 P.M.
2. Carver County - Watertown School on 10-18-73 at 8:00 P.M.
3. McLeod County - Silver Lake School on 10-25-73 at 8:00 P.M.
4. Meeker County - Cosmos High School on 11-1-73 at 8:00 P.M.
5. Kandiyohi County - Lake Lillian School on 11-15-73 at 8:00 P.M.
6. Chippewa County - Clara City School on 11-15-73 at 8:00 P.M.

u ~~Comments were received from municipal, county, and state officials, and from both prospective trail users and adjacent landowners. As a result, the management program had changes~~ ^{*were*} ~~incorporated which were suggested or became apparent through these public hearings and related discussions with interested persons. Present to The Outdoor Recreation Use of 1973 Section 9, Subdivision 1, a Master Plan is now required. The Master Plan based on this amended management program, will be a guide to the acquisition, development and maintenance of the trail. Moreover, Through local government participation and local organizational support, the trail~~

will be permanently developed. Uses in the summer include: hiking, bicycling, and horseback riding while uses in the winter include : ^{Ski Touring} ~~tour skiing~~, snowshoeing and snowmobiling. The DNR's aim will be to develop the trail to fill the needs of the greatest user demand consistent with sound environmental considerations. A list of Luce Line Trail supporters compiled in May of 1973 (just prior to legislative designation) is ~~shown below~~ ^{included in} ~~the~~ ^{the} appendix XYZ.

*may put in
appendix* For appendix LUCE LINE TRAIL SUPPORTERS

Minnesota Department of Natural Resources
Village of Long Lake, Planning Commission
Village of Orono
Village of Plymouth
Village of Medina

Dayton-Hudson Foundation
Elmer H. Olson Company
Medina Ballroom

Orono Lions Club
Minnetonka Sportsmen's Club
Minnesota Horse Breeders and Owners Association
North Star Cross Country Ski Club
Sierra Club, North Star Chapter
Western Saddle Clubs
Minnesota Horsemen's Association
Minnesota Council, American Youth Hostels, Inc.
Minneapolis Hiking Club
Plymouth Horse Owners
Trista Riders
Tri-County Riders
Hutchinson Drift Riders
Sherewood Horse Owners Association
Plymouth Polars Snowmobile Club
Snow Champs of Champlin
SnoTrackers, Lakeville
West Tonka Snoblazers
Wissota Appaloosa Horse Club
Lake Minnetonka Snowmobile Association
National Campers and Hikers Association
Cottage Grove Snowmobilers
Park Pirates Snowmobilers
Little Crow Riders
Sno-Ghosts of St. Francis
Trails for Tonka
Long Lake Drift Skippers Snowmobile Club
Bridley Snow Snoopers

C. D. Funding

Funds for acquisition, development, and maintenance of this land came from both state and federal sources. State support was in the form of money from snowmobile registration fees, unrefunded gasoline taxes, and park user fees. Fifty percent of the money for acquisition was supplied through federal funds by the Bureau of Outdoor Recreation (BOR). For these reasons, both state and federal regulations related to acquisition, development and use must be adhered to.

D. Regional Perspectives

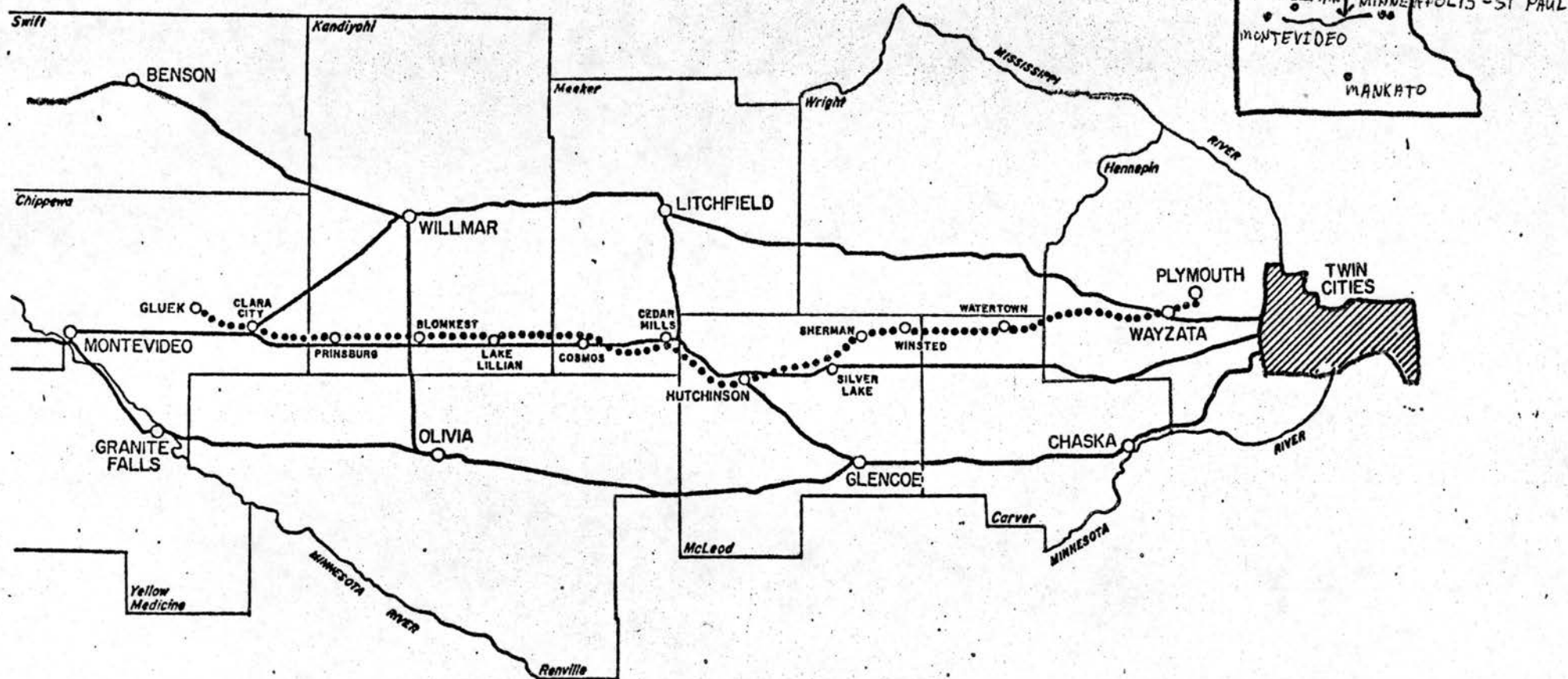
1. Location Maps (see fig 4-1)

The Luce Line ~~right-of-way protrudes~~ ^{state trail extends westwardly} like a spoke westwardly from the Twin Cities, ~~just over 40 miles~~ ^{to} the Minnesota-South Dakota border. ~~The right-of-way starts at~~ ^{It starts at} Plymouth Village (west of Minneapolis) ~~and~~ ^{going} through Wayzata, Orono, Minnetrista, Lyndale, Watertown, Sherman Station, Silver Lake, Komensky, Hutchinson, Cedar Mills, Corvuso, Cosmos, Thorpe, Lake Lillian Blomkest, Roseland, Prinsburg, Bunde, Clara City and terminating ^{es} at Gluek, Minnesota. The width of the right-of-way is essentially 100 feet throughout its 104-mile length. The width may vary 10' to 20' in some spots, but this variance is the exception rather than the rule.

2. Proximity to Population Centers (map)

As stated previously in the "Philosophy of Corridor Trails" is: "of special importance is the construction of trails close to the large metropolitan areas." The Luce Line is a prime example of satisfying recreational needs of large masses without traveling great distances. The metropolitan area is a vast, heavily populated area. ~~In 1860, only 24 percent of the~~ ^{total} ~~state's population resided in the five county Metro area. But~~ ^{By 1970, the} Metro population had increased to nearly half the state total! A map depicting the relationship of the location of the Luce Line to population centers is shown in figure 4-2.

figure 4-1



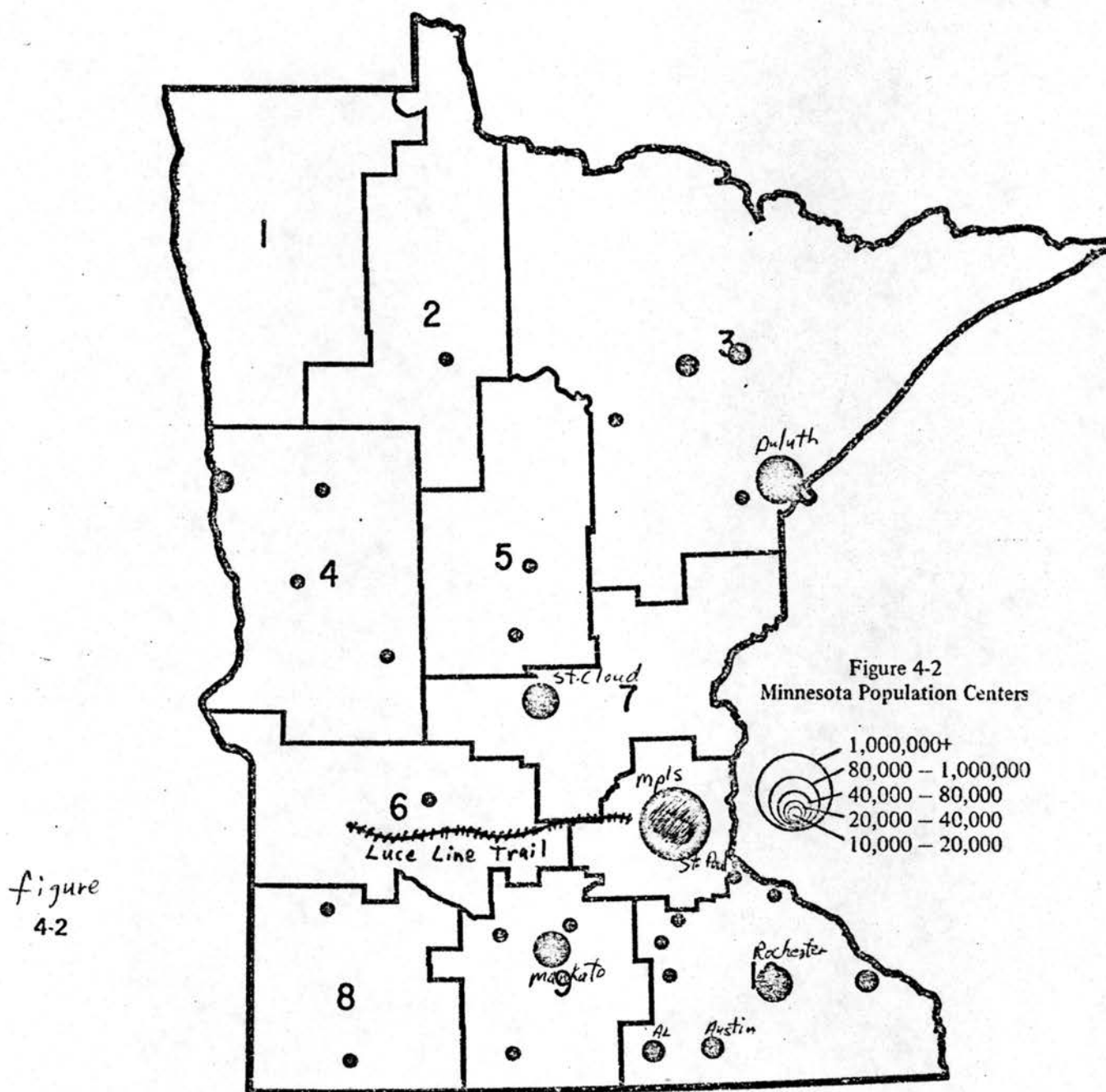
SCALE: ONE INCH EQUALS 16.0 MILES

Drawn by: MINN. DEPT. OF NATURAL RESOURCES
BUREAU OF ENGINEERING
JULY 11, 1973

Luce Line Trail

from Plymouth to Gluek

Location Map - Study area



[from SCORP]

3. Accessibility

Getting to the Luce Line Trail should pose no problem to a large majority of people in the state of Minnesota. An intricate array of highways and freeways (one of the best in the state) ^{transsects} ~~grid through and near~~ this trail. A St. Paul resident who would like to use the trail can be on the trail within one-half hour after leaving his house. The average Minneapolis recreationist can cut that time in half! Although, as one drives more toward the west there are ^{fewer} ~~less~~ freeways, two-lane, low-use type of highways provide safe and comfortable accessibility. (see highway map)

4. Regional Inventory of Other Recreation Areas

Regions included in an analysis of recreational facilities for the Luce Line are Regions 6 ^{and} 11, ~~and the southern panhandle of Region 7.~~ These regions are a part of the designated economic regions set by the Minnesota State Planning Agency and used throughout SCORP ¹⁹⁷⁴ ~~(Minnesota State Comprehensive Outdoor Recreation Plan)~~.

→ [Although the regions contain vast types of private and municipal recreational facilities, (especially region 11), only State Park and Recreation facilities will be mentioned in this section.] Region 11 (see map) where the Luce Line originates is made up of 7 counties: Anoka, Ramsey, Washington, Dakota, Scott, Carver, and finally Hennepin. In the 1974 inventory by SCORP, 3 State Parks, 1 State Recreational Area and one other state trail besides the Luce Line are listed. The State Parks are: Afton, William O'Brien-Washington County; and Fort Snelling - Dakota, Hennepin, and Ramsey Counties. The state recreational area is called the St. Croix Islands Recreational Area and located in Washington County.

should family
and/or municipal and/or
private campgrounds
be mentioned?

only if
related to
Luce Line

del 7

The state trail in Region 11 besides the Luce Line, called the Minnesota Valley State Trail, meanders southwesterly from Fort Snelling State Park to Traverse des Sioux State Park - Nicollet County. This state trail provides a path back into Minnesota Indian history where breathtaking scenery of the Minnesota River can be seen.

④ Region 6 consists of nine counties: McLeod, Meeker, Renville, Kandiyohi, Chippewa, Swift, Yellow Medicine, Lac qui Parle, and Big Stone, (see map). Sprinkled amongst these nine counties are five state parks one state recreation area, one state wayside, and one state monument, not to mention two "proposed" wild and scenic rivers. The five state parks, starting from east to west, in Region 6 include: Birch Coulee - Renville County, Sibley - Kandiyohi County, Monson Lake - Swift County, Upper Sioux-Agency - Yellow Medicine County, and Big Stone Lake - Big Stone County. Lac qui Parle State Recreation Area located on the southwestern shore of Lac qui Parle Lake, is one of six in the entire state. Also found in Region 6 is Joseph R. Brown State Wayside - Renville County; Acton State Monument and Camp Release State Monument - Lac qui Parle County. In addition to the above mentioned DNR recreation facilities, there is a good possibility for designation of ^{segments of the} Crow and Minnesota Rivers into the Minnesota Wild, Scenic and Recreational Rivers System.

F. SOCIO-Economic Aspects

1. History and Archaeology

As the Luce Line Trail extends westward along the route used by the Dakota Indians nearly two centuries ago, ~~points along the trail connecting~~ various points of historical interest can be observed. Even the rise and fall of the original pioneer railroad has a significant history and a small yet great page of our American heritage. This type of interpretation will be valuable for generations to come.

In 1902, W. L. Luce conceived an idea for what he referred to as the Luce Electrical Lines. Negotiations for various stretches of right-of-way were

8

10
were initiated not long after that, and, by 1906, a continuous right-of-way of fifty-eight miles to Hutchinson had been acquired. Two years later, in 1908, the project was incorporated under the laws of the State of Arizona by W. L. and E. D. Luce as the Electric Short Line Railway Company.

ca 20
Construction of the line did not begin until 1913, due to difficulties encountered in securing an adequate terminal facility in Minneapolis. Within a year, however, tracks had been laid over thirty-two miles to Watertown. In 1915, the line was extended an additional twenty-six miles to Hutchinson; stations were established also at Winsted and Hale.

Luce planned eventual expansion of the line to Montevideo and ultimately Brookings, South Dakota; and, in 1917, one historian noted: "Plans are now under way for a system which will contain approximately one thousand miles, and cover the richest section of Minnesota and South Dakota. The promoters of the company have great future in the tremendous growth during the next ten years of the territory their lines are to traverse."

The line was serviced initially by six second-hand gasoline electric motor cars. Later, used steam locomotives were purchased from the Soo Line and Northern Pacific Railroads. Freight and passenger runs were made on a daily basis.

The Electric Short Line Railway Company was beset by financial problems, though. In 1923, just a year after tracks had reached Lake Lillian, the line was facing imminent prospects of failure and receivership. Presently, the company was reorganized as the Minnesota Western Railroad Company, with the Luce brothers retaining active control. Bonds were sold to finance further expansion of the line, and the goal of reaching Brookings was revived. By 1927, however, all funds had been expended, the line reached only to Gluck,

and receivership again loomed on the horizon. Late in that year, the line was sold to Harry Pence of the then-successful Minnesota, Northfield and Southern Railroad.

~~The railroad right-of-way begins in Hennepin County and extends westward through the following counties and through or proximate to the towns listed:~~

Carver County	Kandiyohi County
Watertown	East Lake Lillian
Hollywood	Lake Lillian
McLeod County	Roseland
Winsted	Holland
Hale	Chippewa County
Hutchinson	Rheiderland
Acoma	Stoneham
Hass Valley	Leathrop
Lynn	Havelock
Meeker County	Crane
Cedar Mills	Lone Tree
Cosmos	

may
not
need
this
in this
section

cannot
find
this
section

Historic Sites

Eleven sites of varying historical and cultural significance have been noted to date in the six-mile width of the trail corridor under investigation:

McLeod County

1. Site of bridge collapse (NW 1/4 Sec 12 Winsted Twp). In October, 1953, the trestle across the southeast tip of Winsted Lake collapsed while a train was crossing. The bridge wreckage and nine cars loaded with grain, fell into the lake. Shortly thereafter, the railroad acquired a right-of-way around the tip of the lake, and rerouted their traffic accordingly.

2. Sherman (NW 1/4 Sec 18 Winsted Twp), known alternately as Sherman Station and, on some old maps, Sherman City. This was a station on the Luce Line, and for a time sported several dwellings and other buildings. There is a small store there today.
3. Bohemian Reading and Educational Society (NE 1/4 Sec 35 Hutchinson Twp), located four miles west of Silver Lake. The society was organized in 1876; the building is a brick schoolhouse at the Czech settlement of Komensky. The building, constructed between 1880 and 1900, was used to provide social and educational advantages for Bohemians and their children.
4. Lewis Harrington House (225 Washington Avenue, Hutchinson). This home was built in the 1850s by Harrington, a surveyor who served as a member of the State legislature, and was Hutchinson's first postmaster.
5. McLeod County Historical Museum (Hutchinson). Maintained and operated by the McLeod County Historical Society, the museum was established in 1958 and houses many unique objects, articles, and manuscripts pertaining to the early history of McLeod County.
6. Site of W. W. Pendergast House (7 Hassan Street, Hutchinson), now a Sinclair station. Pendergast was one of the founders of Hutchinson, and became a school-teacher there. He eventually served as the State Superintendent for Public Instruction (1893-1898).
7. Sioux War Stockade Monument (Public Square, Hutchinson). This marker, erected in 1905, denotes the site of a stockade built by the settlers of Hutchinson and the vicinity for protection against the raiding Sioux Indians. On September 4, 1862, Chief Little Crow's band attacked the stockade and were repulsed.

Meeker County

8. Hutchinson-Pembina Trail (not shown on map). Part of this trail, which ran from Hutchinson to Pembina, South Dakota, is still visible and used by local residents.

Kandiyohi County

9. Hart House (SE 1/4 Sec 12 Lake Lillian Twp). This is a simple two-story house with little decoration, constructed in the 1870s. The construction, limestone mortar on a wood frame, appears to be unique for the date. The interior walls are also of mortar. This was one of the first substantial houses

in the county. It is vacant and has been exposed for many years, and is in visibly poor condition, but the walls remain sound.

10. Blizzard victims memorial (NE 1/4 Sec 10 Roseland Twp). This marker stands where John, Charles, and Stephen O'Neill and Thomas Holden died during the January blizzard of 1873. They were four of twelve who perished in the county as a result of the storm.
11. Indian war campsite (SW 1/4 Sec 17 Holland Twp). After raiding a white settlement at Upper Agency, thirty Sioux warriors camped here in August, 1862. Their sharp attacks drove settlers to Paynesville, Forest City, Hutchinson, and St. Paul. The Indians would follow refugee trains, attacking whenever possible. { *see page 1*

2. Land Use

To gain an understanding of the competition for any parcel of land, current land-use patterns adjacent to the management right-of-way must be taken into account. This information will be useful towards dealing with other landowners in relation to the development and management of the Luce Line trail.

The patterns of land-use abutting the Luce Line right-of-way reflect the results of the combined works of man and nature. ^{7/24} Interchanges of numerous factors ~~have~~ ^{have} determined the resource opportunities and limitations for the 104 mile trail. Jaguar

The ~~general~~ land-uses differ over the entire length of the Luce Line trail. In the western 2/3's (approximately), the dominant land-use is agricultural ^{(i.e.} ~~is~~ cultivation and pastureland). Impact mostly in the form of cultivation has modified the bordering lands greatly. The soils here are well suited for cultivation and the topography is generally rolling (explained more in detail in the section on soil and geology). Pastureland also exists along the western 2/3's but this type of land-use is not a dominant use. W

The eastern 1/3 (approximately), has a dominant land-use different from the western 2/3's. The land is used ^{mostly} for pasture ^{and} ~~is~~ ^{is} wooded mainly because of limitations of soil and topography. Even though the "Big Woods" has been largely cleared, much of the land is too rough, wet, or stony to cultivate. W

Cultural factors have also played a role in determining the present patterns of land use. Towns were often founded ^{at} ~~on~~ intervals along transportation routes such as railroad lines. In addition, the influence of the expanding metropolitan area is being felt around the eastern part of the management area. W

Open water and marshes are located in many places adjacent to the trail. ~~characteristics of the land~~ These ~~types of~~ land ~~uses~~ should be kept in mind for possible future acquisition and development. W

The eastern 1/3 of the Luce Line Trail is generally classified as agricultural land. For these two reasons and, the fact that the trail is located near the Metro area, it can be concluded that the area immediately surrounding the Luce Line Trail is nontourist. However, with the advent of the Luce Line Trail via 1973 legislation and DNR, a type of tourist interest will start to grow.

Since the Luce Line is located through-out seven counties and will affect the local travel economies, it is helpful to look at the relative importance of the year-round tourist-travel sector of the economy of this area. Data compiled by the Research Division of the Minnesota Department of Economic Development shows tourism has grown from 1974 to 1975 in every county except Chippewa County (see table 2-1). One could safely say that further growth will occur as development of the trail is completed. (?)

TABLE 2-1

TOTAL SALES (1974-1975)

Standard Industrial Class 70
(Hotels, Motels, Lodging, Campgrounds, Tourist Courts, etc.)

County	'74 (thousands)	'75 (thousands)	% Increase
Hennepin	77,595	79,669	2.6
Carver	188	268	42.0
McLeod	291	297	2.1
Wright	553	679	22.8
Meeker	173	385	122.5
Renville	177	214	20.9
Kandiyohi	2,224	2,595	16.7
Chippewa	646	613	5.1
Total	81,847	84,719	+ 3.51

A more specific example of tourism impact is shown by data

retail snowmobile purchasers. This data, also compiled by the Research Division of the Department of Economic Development reveals that the 48,485 new snowmobiles accounted for approximately \$58,000,000 in new retail sales which generated about \$2,300,000

in State Sales and Use Tax. Registration fees alone amounted to \$58,120. In addition 950 snowmobile dealers paid \$35,625 in dealer fees.

In all, 301,420 snowmobile registrations were in effect on January 30, 1975.

If each of these generates \$50 in annual operating cost, another \$15,000,000 in retail sales is realized for the season.

D. Natural Resource Perspective

1. Introduction

The original prairie lands in Minnesota can be estimated at roughly 20,000 square miles! A generous estimate of the amount of reasonably good prairie now remaining in all types of ownership is about 20 square miles, or one tenth of one percent of what once existed!

The prairie is more than grass. It ~~is~~ ^{provides habitat for} prairie chickens, pheasants, hungarian partridge, buffalo, and other reminders of an endangered American heritage. ~~that must not be lost.~~ Many ~~the~~ ^{vast} areas of the forested central and northern parts of Minnesota are already in protective public ownership. ~~The priority now is to acquire prairie because it is the easiest of the natural treasures to destroy and the least amount of it remains to be saved.~~ The Luce Line passes 13 miles North of Schaefer Prairie in McLeod County.

The end of the route at Gluek is within 28 miles of Chippewa Prairie in Chippewa and Swift Counties. ~~Many railroad rights-of-way in the state have prairie areas.~~ ^{Since many railroad right-of-ways contain natural areas,} It is possible that virgin ^{and/or natural} prairie exists along or with-in the western ^{2/3's} reaches of the Luce Line.

2. Vegetation

a. Original Vegetation

The Original Vegetation of Minnesota map ^{Compiled} (by Francis J. Marschner) reveals the type of vegetation that could have been found along the Luce Line had the land been left undisturbed by man. This aspect is ~~very~~ ^{Plant community} unique for two natural biomes, including a transition ^{zone} ~~zone~~, would have flanked the trail as it extends westward. ~~Half~~ ^{The eastern half} of the trail ~~was~~ ^{was} engulfed by stable hardwood forest, while the ~~other~~ ^{western} half ~~was~~ ^{was} abutted on both sides by grassland. The transition zone between the hardwood forest and grassland, was referred to as "Brushland".

The Luce Line ~~would have~~ sliced through the upper 1/3 of a stable hardwood forest known as the historical "Big Woods". (see figure 5-2). This hardwood forest was made up mainly by sugar maple, basswood, and oak (red and burr). Species that could also be found were yellow birch, paper birch, ash and elm. Toward the southeast part of the Big Woods, hickory, black walnut, butternut, and black cherry were common. Northeastward

LOCATION OF MINNESOTA'S
HISTORICAL "BIG WOODS"

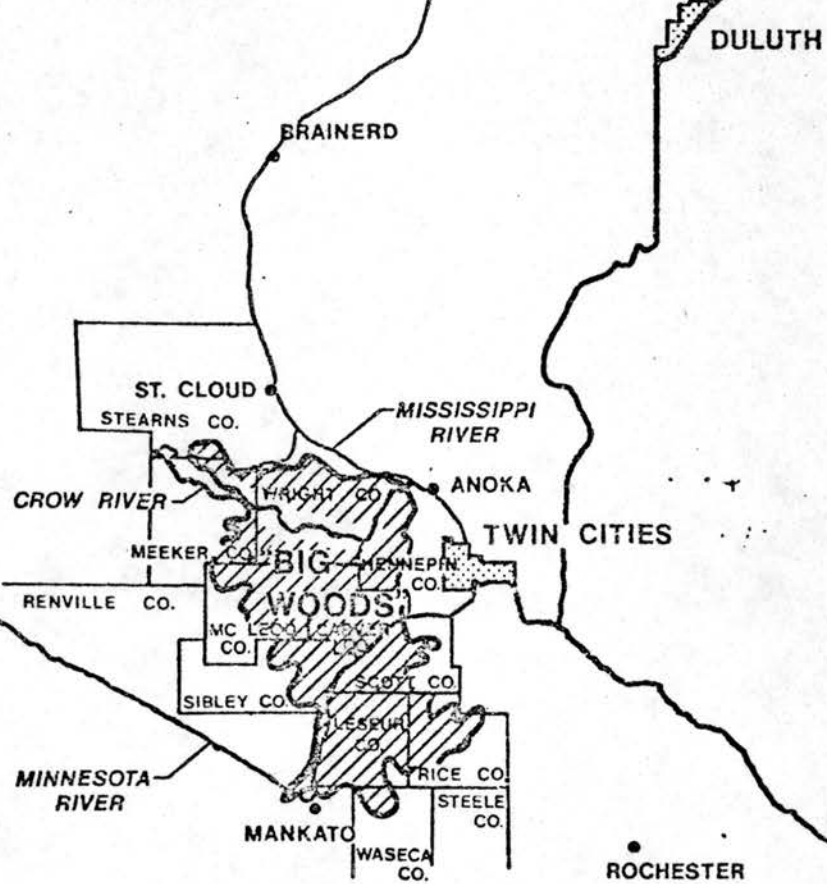


figure 5-2

these species disappeared, and occasional specimens of white pine, white spruce, balsam fir, and northern white cedar appeared. Even though forest vegetation was dominant, ~~intermittent~~ low-lands such as wet prairies, marshes, and sloughs were located in the Big Woods and thus, should be mentioned.

As the trail proceeds westwardly - approximately halfway along the Luce Line - the vegetation ~~would have~~ slowly changed toward grassland. This is where the two biomes "interphased" each other and is known as a transitional zone. Fire was the main factor limiting advancement of the Big Woods. The original Vegetation of Minnesota map refers to this zone as Brushland. This Brushland consists of 3 types of classifications. (1) Brush Prairie, (2) Aspen Oak Land and (3) Oak openings and Barrens.

The Luce Line ~~would have~~ passed mainly through the Brush Prairie and Aspen Oak Land types of the Brushland Transition Zone. Brush Prairie is a fire maintained mosaic of low shrub thickets, patches of small trees, and bits of prairie. It is characterized by most plants of the prairie plus quaking aspen, Balm of Gilead, oaks and numerous shrubs: hazel, dogwoods, willows, wolfberry, cherries, Juneberries and finally roses. Aspen Oak Land is generally dense, but small Aspen (quaking and bigtoothed) with scattered oaks and few elms, ash, and basswood. This type is also fire maintained but had fewer fires than the Brush Prairie.

Small
~~East but not west~~, the Luce Line ~~would have~~ extended through vast grassland of two classifications. The majority of the grassland ~~would have~~ consisted of the tall grass prairie type. Some by species were big bluestem, little bluestem, Indian grass and other grasses. In addition, many forbs such as prairie clover, asters, goldenrods, pasque flower and several shrubs, especially roses and wolfberry could be found.

Sprinkled here and there along the Luce Line ^{was} ~~would have been~~ wet prairie, marshes, and sloughs. This second type of grassland, ~~which was also mentioned to be found intermittently in the historical "Big Woods", would have~~ encompassed a wide range of wetlands. They ranged ^{from} seasonally inundated grasslands on mineral soil to cattail marshes and red-

covered peatlands. Prominent species were bluejoint grass, big bluestem, and many sedges, the common reed, cattails, bulrushes, wild rice, iris, willows, speckled alder and log birch.

2. Modern-day Vegetation

Because of clearing, cultivation, ~~grazing~~, and burning, little of the historical "Big Woods", natural transition zone, and grassland remains as it once was. However, since the railroad company bought the 100 ft. right-of-way just after the turn of the 19th century, less disturbance of the natural vegetation occurred along this route than in most areas of the vicinity.

The Big Woods has succumbed to not only clearing, cultivation, ~~grazing~~, and burning, but also to urban sprawl. Urban sprawl - the inevitable process of man moving away from the centers of large heavily populated cities - will continue as time passes. Although man has impinged even more upon the Big Woods, his desire for shade trees and suburban aesthetics will ^{tend to preserve} ~~perpetuate plus manage~~ large portions of the ^{remaining} Big Woods. The Luce Line will provide an outlet or a path to enjoy the scenic vistas remaining from the Big Woods. Some of the trees common to the community - sugar maple, basswood, hickory and red elm are still found in the study area. Some of the most common shrub and vine species of the Big Woods remaining include Virginia Creeper, elder, gooseberry, bittersweet and moonseed.

It is difficult to determine today where exactly the transition zone is. Burning, ~~grazing~~, and agricultural processes have ~~ceased~~ ^{ceased} drastically ~~successional~~ ^{natural} stage development of both the hardwood forest and grassland. Nevertheless, it can be approximated ~~or depicted~~ more accurately along the trail than almost anywhere since the level of disturbance has been lower than most adjacent lands. Many natural "Brushland" plants of both Brush Prairie and Aspen Oak Land continue to grow along the trail.

Almost all the natural grasslands ^{throughout} ~~in~~ Minnesota (prairies and wet prairies) are extinct because of cultivation, ~~grazing~~ ^{and burning}, Today, vast ~~areas~~ ^{are} of corn and soybeans

grow where big bluestem, little bluestem, Indian grass, and so on once thrived. Only designated natural areas, some roadside ditches, and specific railroad grades contain remaining vegetation that resembles the original prairie ^{vegetation of Minnesota} cover. The Luce Line Trail, while providing recreational opportunities, will act as a refuge for ^{many of} these scarce plant communities.

Restoring Much wet prairie, marshes, and sloughs have been ^{drained} ~~lost~~ ^{throughout Minnesota}. Every year, more tile is laid to drain this land. Fortunately for the Luce Line, numerous areas have not been drained for various reasons. Every one of these areas ^{provide habitat for} ~~produce abundant~~ wildlife such as ducks, herons, pheasants, songbirds, rabbits, fox, deer etc. ~~These wet prairies,~~ marshes, and sloughs should be purchased and/or preserved by the state if possible. This will benefit not only wildlife production but protect our natural wet-prairie amenities and add to aesthetic beauty along the trail.

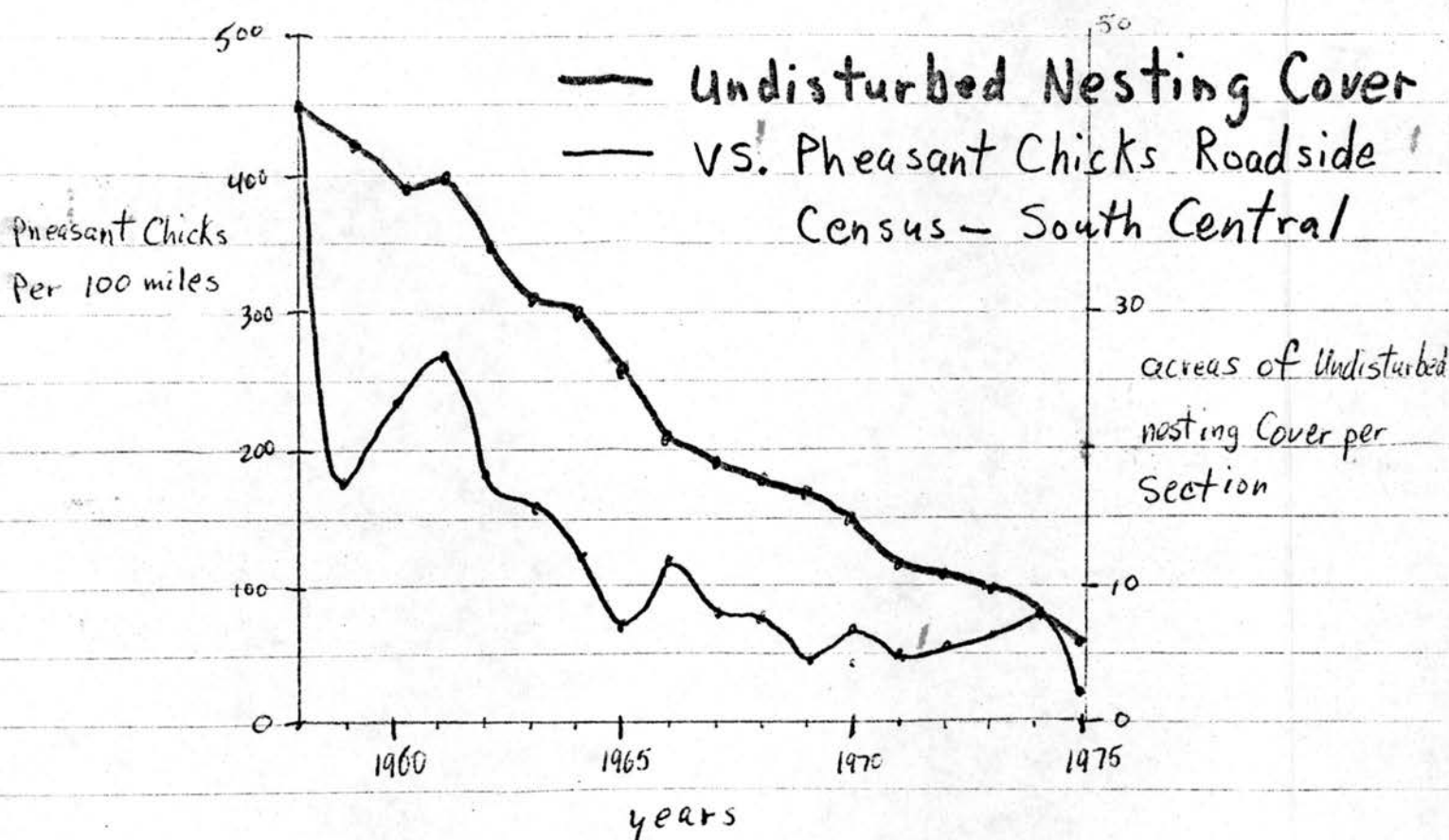
3. Wildlife *Introduction*

One of the The most highly prized ~~small~~ game bird found in Minnesota prairie land is the Ring-necked pheasant. Introduced to the U. S. in 18 ^{bird} this ~~tough, highly adaptable bird~~ flourished throughout the vast prairie and plains of the upper midwest including Minnesota. But, with increasing efficient farming methods, more and more habitat for nesting, food, and winter cover were lost to agricultural purposes. Thick, protective fencelines are now very minimally vegetated. Massive wetlands and sloughs are now tiled and used for crops. ~~Wind breaking, tree-groves have been "grubbed" and now permit the chilling winter wind to blow unresisted.~~

but the The Ring-Necked pheasant and many other wildlife species ^{had no where to} ~~had no where to go but the~~ roadside ditch, ~~and railroad grades~~. But once again they are being disturbed by man. Mowing in the spring destroys many nests. Spraying in the summer chokes many fledglings. Finally, burning in the fall lowers the winter food and cover supply, ~~resulting in more~~ ~~mortality.~~

NO 4 Year by year data starting from 1958 to 1975 shows a drastic drop in the undisturbed nesting cover for pheasants. (see ^{fig 3-1} ~~graph~~). ~~One cannot put the blame entirely on the farmer.~~ Because of the priceless value of farmland acres and high capital investment, *the farmer can not afford to leave much unplanted.*

fig 3-1



One area of habitat that has produced a relatively consistent population of pheasants ^{and other wildlife} was the railroad right-of-way. ^{Being usually 100 ft. wide, these} However, many railroads have been abandoned ^{and have put their lands up for sale.} ^{Studies have revealed that} ~~ditches are excellent prairie habitat. A study has revealed that~~ ^{use of ditches by that small game such as pheasant, Hungarian partridge, and} In 1949, 303 railroad companies accounted for 9,593 miles of track. In 1975, only 16 companies remain accounting for 7,814 miles of track. ^{greatly use ditches for reproduction, and} This prairie habitat, usually excellent for sustaining pheasant and other wildlife, will inevitably fall to the plow - a fate certain to reduce the ailing Ring-necked pheasant population.

^{Import 1004} By purchasing the 100 ft. wide, 104 mile long, Luce Line right-of-way, the DNR ^{wildlife} has virtually perpetuated natural and potential prairie habitat. This will benefit not only the pheasant population but other types of wildlife. To date, the DNR has acquired five railroad right-of-ways. ^{for trail use} By providing the people of Minnesota with more recreational activity ^{opportunities} hours, the DNR has inadvertently put into "useful refuge" ~~some~~ ^{precious} wildlife habitat. Instead of going to agricultural purposes, ^{of the Luce Line aid} the ~~this~~ habitat will ~~sustain~~ the wildlife of our great ^{Minnesota} heritage.

Other wildlife

Many other types of wildlife species are found along or near the Luce Line Trail. Many species of waterfowl are present in nearby wetlands. Mallards, wood duck, and blue-wing teal are among the most common. Also many wetland-orientated birds such as herons, bitterns and shorebirds. ^{In addition} Song birds, hawks and owls also frequent the vicinity of the Luce Line right-of-way.

Mammals living ~~along~~ or near the trail corridor include ^{mink} ~~mink~~ muskrat, raccoon, white-tailed deer, squirrels (red, gray and fox) woodchucks, skunks, red and gray fox, jack and cottontail rabbits. Smaller mammals include chipmunks, ground squirrels, weasels, pocket gophers, and many species of mice, moles and shrews.

4. Soils and Geology

~~Anyone concerned with land management should know the kind of soil he works with and what to expect from it.~~ The soil type can influence natural resources such as vegetation and wildlife. Soil information, ~~therefore~~, is an important and useful tool in trail planning. The type of soil found in any place reflects the combined action of the factors of soil formation:

- (1) parent material. (2) climate, (3) vegetation, (4) topography, and (5) time.

a) Parent Material


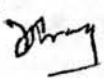
The parent materials of the soils of Minnesota were primarily deposited by the action of glaciers during the Ice Age (between 12,000 and 13,000 years ago). Glaciers invading Minnesota from a northwesterly direction contributed a significant ingredient to the soil found in many soils in Minnesota including ^{soil for the} the entire length of the Luce Line Trail. The advancing glaciers originating in the Kewatin Center passed over limestone deposits in southern Canada and scooped up some of these materials. For this reason, the material deposited by these glaciers was usually calcareous ~~or~~ ? (calcium-containing).

b) Climate

A second factor important in soil formation is climate. The chemical and physical alteration (weathering) of parent material during soil development is closely related to climate. Both temperature and moisture are important. It is not enough to consider only the average temperature and rainfall ^{but} it is also important to consider such things as extremes in temperature and rainfall. In temperatures below 60°F chemical changes occur slowly. ~~As for rainfall~~, the moisture remaining after evaporation and transpiration, ("effective" rainfall) ~~is~~ is more important than total rainfall. ~~Amount of effective moisture will effect plant growth.~~
The amount of "effective" moisture

The average normal temperature along the Luce Line is between 44° - 45°F with extremes of hot and cold over 100°F and below zero respectively. Annual normal precipitation in the area of the trail ranges from 27 inches in the eastern part to 24 inches in the western part. "Effective" rainfall is lower than these figures because of warmer temperatures for the southern half of the state and declining vegetation cover as the trail extends westward.

c) Native Vegetation

Native vegetation has a profound effect upon the characteristics of soils as we now see them. In Minnesota, native vegetation can be divided into two categories (1) forest and (2) prairie. The Luce Line has both types of vegetation cover. ~~Forest (deciduous)~~ in the east and prairie ~~wet and dry~~ in the west.  

In the eastern part of the Luce Line Trail, the historical "Big Woods" has affected the soil. Normal ~~the~~ forest leaching produces a light colored bleached surface soil. However, the soils of the Big Woods are dark colored ⁽¹⁾ resembling a prairie soil. In this area, it is thought that trees invaded the prairie but have not been growing in the area long enough to allow the organic matter to be leached out of the surface soil by percolating waters.

The western prairie surface soil is characterized by a dark color related to organic matter content. This matter is supplied by shallow rooted plants with extensive root systems.

d) Topography

Topography (lay of the land) is another factor of soil formation. Slope has a great bearing on the amount of runoff water in an area and thus, affects the water available for plants. The direction of the slope is also important. A south facing slope in Minnesota is warmer and drier than a north facing slope.

The slope of the land along the Luce Line is generally flat or rolling. Percent slope is not as significant as north and south facing slopes, North and south facing slopes will have differing microclimates which is a climate of the first layers of the soil.

e) Time

Soils formed from older parent materials are more highly developed than soils formed from younger materials because of greater length of time over which the other factors acted. The parent materials of the soil of the Luce Line Trail is between 12,000 and 13,000 years old. It can be concluded that this soil is highly developed. However, it should be mentioned that time was a limiting factor that has kept the soil of the Big Wood more dark and prairie-like than forest-like.

After looking at these factors: parent material, climate, vegetation, topography, and time, it has been determined that the major soil associations in the study area starting with the eastern part of the Luce Line extending westwardly are:

*Hayden. This is gently rolling to strongly rolling area. This light colored soil formed from calcareous loam or clay loam glacial till. Hayden is a well drained soil with a major erosion control problem. Poorly drained depressions in the area are occupied by the dark colored Bluffton soils or peat and muck. Major land uses are dairy farming and urban development. Major crops are legume hay, pasture, corn, and oats.

*Lester-LeSueur-Glencoe. This is a gently rolling area. These soils have formed from medium textured calcarious glacial till of Wisconsin age. Lester loam is moderately dark colored, well drained, and occurs on slopes, LeSueur is dark colored, moderately well drained, and occurs on nearly level areas. Glencoe clay loam is dark colored, very poorly drained, and occurs in wet depressions. Erosion is a major problem on Lester and drainage is needed on Glencoe. General livestock and dairy farming pre-

dominate. Common crops are corn, oats, and alfalfa.

*Clarion - Nicollet - Webster. These are level to gently rolling areas. They are dark colored soils formed from calcareous loam till of Wisconsin age. Clarion loam is well drained, slightly acid, and occurs on slopes. Nicollet loam is moderately well drained and occupies nearly level areas. Webster clay loam is poorly drained and occurs in level areas. Soils formed from glacial outwash (Wadena, Hubbard) are common along streams. The margins of many saucer-like depressions are calcareous. Most level areas have been drained by tile and ditches. Erosion may be a problem on Clarion areas. Cash grain and livestock farming predominate. Prominent crops are corn, soybeans, oats, and alfalfa.

*Truman - Marna. This is a level to undulating area. These dark colored soils were formed from calcareous silty and clayey lacustrine or windblown deposits. Truman silt loam is well drained and occurs on gentle slopes. Marna silty clay loam is poorly drained, fine textured, and occurs on the level areas. Erosion control is a problem on some Truman soils but the major problem of the area is drainage. This is a cash grain or live-stock-feeding area. Major crops are corn, soybeans, and oats.

*Barnes-Aastad-Flom. This is a nearly level to rolling area. These are dark colored soils formed from calcareous loam glacial till. Barnes loam is well drained and occurs on generally convex slope positions on the landscape. Aastad clay loam is moderately well drained and occurs in nearly level areas. ~~Flom is poorly drained and occurs on the level areas.~~ Flom is poorly drained and occurs on the level areas. The margins of many saucerlike shallow depressions are calcareous at the surface. Erosion control on rolling areas and drainage of poorly drained areas are major management problems. Cash grain farming is the principal use. Corn, small grain, and soybeans are the main crops.

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LUCE LINE TRAIL1. Description of the Proposed Action

Authorization - In 1973, the Minnesota State Legislature amended Minnesota Statutes 1971, Section 85.105, subdivision 1, establishing (appendix A) the Luce Line Trail. The Act authorized the Commissioner of Administration, for the Commissioner of Natural Resources to acquire by gift or purchase, the abandoned right-of-way of the Chicago North Western Railroad Company for development as a multi-use trail. The Act also authorized the Commissioner of Natural Resources to establish, develop, maintain and operate this trail in cooperation with local units of government and private individuals and groups.

Proposed Action - The Minnesota Department of Natural Resources, (DNR) by the Commissioner of Administration will acquire by gift or purchase approximately 104 miles of the abandoned Chicago and North Western Railroad Company right-of-way originating at Gleason Lake in the City of Plymouth, Hennepin County following the right-of-way west and terminating Gluek, Minnesota in Chippewa County. The abandoned right-of-way will be developed as a multi-use trail for outdoor recreational trail activities. It will allow for both motorized and nonmotorized uses. To provide a variety of trail uses, snowshoeing, skiing, and snowmobiling will be allowed during the winter. In the summer bicycling, hiking, and horseback riding will be allowed. The trail will be developed in three phases with some of the users excluded until other paths beside the original roadbed can be developed. In some areas, because of the terrain, width of the right-of-way, residential development, etc., certain types of uses will not be permitted. All motorized vehicles will be prohibited from the trail with the exception of snowmobiles. The trail will be developed to fill the needs of the greatest user demand consistent with sound environmental considerations.

2. Description of the Environment

Ownership - Ownership of the right-of-way is concentrated by two parties, however, portions of the right-of-way passing through small towns have been sold to adjacent landowners. The United Power and Light Company, a wholly owned subsidiary of Northern States Power Company acquired all of the right-of-way in Hennepin County, a distance of fifteen miles, and three miles of right-of-way in Carver County. On this continuous segment of trail, a single and double power pole transmission line exists on a portion of the south side of the right-of-way. Northern States Power Company's short range plans do not call for upgrading the capacity of this transmission line.

Most of the remaining portion of the abandoned right-of-way has been retained by the Chicago and North Western Railroad Company. These exceptions exist: in Watertown, Winsted, Silver Lake, Hutchinson and Cosmos the Chicago North Western Railroad has sold portions or all of the right-of-way to either the town councils or adjacent landowners. The extent of these sales will not be known until negotiations with the Chicago North Western Railroad are completed.

Some homes abut the right-of-way, for the first four miles of the Northern States Power Company segment, in addition to golf courses, pasture land, crop lands, marshes, lakes, open fields and municipal property. The heaviest concentration of homes exist in the City of Wayzata. Scattered homes exist in the cities of Orono, Independence and Minnetrista in Hennepin County.

In Hennepin County, there are no leases for grain elevators, oil storage tanks or other commercial developments. However, leases or easements for gardens and grade level farm crossings and other uses exist.

The portion of abandoned right-of-way which the Chicago NorthWestern Railroad still retains, runs through rural small towns and agricultural farm lands. The railroad has removed all salvageable rails and ties. Some bridges and culverts still remain in that section of right-of-way in Hennepin County. Many old ties which were not salvaged are strwn on the side slopes of the railroad bed. Weeds, shrubs and trees have started to engulf the right-of-way in many areas. In some cases this is the only natural vegetation in the area.

Encroachment exists in some places along the right-of-way, however, this does not include those landowners with current valid licenses, leases or contracts issued by the railroad of Northern States Power that permit special use of designated sections of the right-of-way. Agriculture crops have been illegally planted within the right-of-way. Some fences cross or do not follow correctly the right-of-way boundary line and the grade level road or farm crossings have been erected without obtaining valid crossing permits.

3. The Environmental Impact of the Proposed Action.

In cases where the right-of-way has been sold to adjacent landowners or town councils, land for the trail corridor will have to be purchased in fee simple. The initial attempt will be to rebuy the right-of-way from the title holder. At this time, some present owners have indicated a willingness on their part to sell. If this fails, before changing any trail alignment, a second attempt will be made to negotiate a trail easement. If this does not work the trail alignment will be changed to find favorable sellers. Since the Division of Parks and Recreation does not have the power of eminent domain.

Tax loss experienced because of acquisition of the right-of-way will be minimal since most of the right-of-way is still owned by the Chicago North Western Railroad which pays a gross income tax. The remaining twenty-eight miles (eighteen miles of Northern States Power ownership) or approximately 330 acres will be a source of real estate tax loss. This owner is expected to be very small for each taxing district since the acquisition is not concentrated in one small area but spread in linear fashion over many miles.

Major concerns involve trail uses in the SMSAA of Hennepin County. Snowmobiling and horseback riding will not be allowed on that portion of trail from Gleason Lake to Highway 12, in the cities of Plymouth, Wayzata and the northeast part of Orono, a distance of four miles. Use will be restricted to hiking, biking, skiing, and snowshoeing in this area. All uses, including snowmobiling and horseback riding, will be allowed on the

balance of the trail from Highway 12 to Gluek. The trail will be developed in three phases as the cross section user diagrams depict (see appendix). Picnic tables, litter cans, pit toilets and hand pump wells for water will be provided in wayside rest areas. Overnight camping will not be allowed at this designated waysides. Overnight camping facilities will not be provided initially by the State because additional land adjacent to the 100' right-of-way will be needed to accomodate this use. However, some camping facilities maintained by local units of government presently exist near the trail. regeneration of vegetation will reduce the need for planting, however, it is not considered the complete solution. Planting A crushed limestone surface will be developed for bicycles on the old railroad bed. This surface will be approximately eight feet wide and four inches thick. The section of trail between the cities of Plymouth and Watertown, a distance of twenty miles, will probably be surfaced first because of the greatest demand for bicycle trails is expected from the metropolitan area. Horses will be restricted from this pathway since hoofs damage the limestone surface. Horses will be allowed on a separately designated trail, to be developed later, which will run parallel to the old railroad bed. The discarded ties along the trail will be used to coruroy marsh sections of the trails where horses are permitted. A trail boundary sign will be used to indicate common boundaries between Fencing will be provided by the State on portions of the trail according to need. Protection of homes and crops will receive the first consideration. Livestock fences presently exist in areas where they are needed to confine cattle. In addition to protecting private property, fencing will be necessary erected to prevent encroachment of private interests and to limit access points. Any landowner may erect any type of fence, he desires, which is consistent with local government ordinances. Litter cans will be placed at access points Residential fencing will differ from agricultural fencing. Considering is being given to four foot high, four strand barbed wire or plain wire steel post fence for agricultural areas. This type of fence is identical to the old railroad fence. In residential areas, four foot high wood post, woven wire freeway fence is being considered.

Fence materials will be provided and erected by the State but the abutting landowner will be required to maintain it. The fence will be erected on the State owned boundary line after consultation with the landowner. Eventually, the State will screen the fencing with natural vegetation. Driveway, farm implement and livestock crossing easements granted to the landowner from the railroad or Northern States Power will be renewed by the State. To reduce the number of hazardous trail crossings, new crossing easements will be limited. Crossings presently being used but without written permission in the deed, will be renewed on an individual basis. Crossing easements for new underpasses or overhead bridges as a substitution for old grade level crossings will be reviewed, and if approved, granted on an individual basis, however, the landowner will be required to pay the construction costs.

The general polciy for "garden" leases and other permits will be to gradually phase these types of uses out. The termination period will be determined with each permitter on an individual basis according to their needs and the terms of the contract.

In general, the State will maintain all the proposed facilities related to the trail that it installs. The only exception will be fences. Litter generated by the users will be removed by state employees. Noxious weeds growing on the trail bed will be controlled by spraying. Trails will be properly signed for safety of use.

4. Mitigating Measure Included in the Proposed Action

In most cases natural regeneration of vegetation will reduce the need for planting, however, it is not considered the complete solution. Planting will be necessary to control and prevent erosion on side slopes. Planting will be used to screen fencing and keep the trail users on their designated trail. Trees and shrubbery will also help to eliminate noise from snowmobiles. A benefit of planting vegetation is the habitat it will provide for small game birds and animals such as rabbits, fox, pheasant, mice and other small rodents. Planting will screen users from the surrounding landowners and screen the landowners activities from the user.

Proper signing of the trail will insure safe operation and a minimum of complaints from private owners of users straying from the trail. A "trail boundary" sign will be used to indicate common boundaries between landowners and the State. These are to be placed approximately fifty rods apart. A "stop" sign will be placed at all road and highway crossings. Users will be notified of impending "stop sign" 300 feet before the stop is required, "danger" signs will indicate an area where caution is necessary such as narrow bridges, cliffs, sharp corners, and road crossings.

Litter will be removed by state maintenance workers or contracted refuse collectors on a normal basis. Litter cans will be placed at access points and waysides. The extent of this problem should be minimal since the users because of their short distance of travel are limited in the amount of litter they can generate.

Noxious weeds growing along the right-of-way will be controlled by park and recreation workers.

Enforcement of trail rules and regulations will be provided by the Department of Natural Resources Conservation Officers as authorized by the Commissioner of Natural Resources delegation order number 197. Violations of these rules and regulations is a misdemeanor carrying a fine of up to \$300 and/or ninety days in jail. In addition, all supervisors, guards, custodians, keepers and caretakers of state trail poses the authority and powers of peace officers and can warn, detain and report violators to the conservation officers. County sheriffs and highway patrol officers can also warn, detain and arrest violators. Violations will occur on state trails but by using preventive measures, informing the public and effective arrests by conservation officers, sheriffs and highway patrol officers, nuisances can be minimized.

5. Any Adverse Environmental Effects Which Cannot be Avoided Should the Proposal be Implemented.

Acquisition of land for the trail corridor will effect the real estate tax collected by the taxing districts. As stated earlier, this is expected to be minimal since a mile of 100' right-of-way is only about twelve acres.

During construction of the trail the railroad bed will be leveled which may destroy about five feet of adjacent brush cover. However brush will be allowed to regenerate along the trail corridor since it is desirable to screen users from adjacent landowners and lessen the noise from snowmobiles. Brush along the corridor will regenerate in a few years.

Trespassing by trail users can be held to a minimum by providing and erecting fencing at the landowners request. Parking facilities will be provided along the trail on public lands to prevent users parking on township and county roads or private property. There still remains the possibility of users leaving the trail seeking adventure on their own. Although the landowner may call enforcement officers to make arrests, these adventures are seldom caught.

6. The Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity - Adjacent lands, for the most part, are used for agricultural purposes. Adjacent landowners; as a short-term use, after leveling the railroad bed and removing the gravel and rock overburden, could farm this land. Whether this is an economical undertaking, would be for the adjacent landowners to determine. Most land sold to adjacent landowners is in the towns and used as an extension of the homeowners backyard. Very few of these owners have removed the railroad bed.

The long term use would go to provide recreational trail corridors for people in the surrounding areas. Restricting users to the trail would lessen the possibility of trespassing on private lands which exists now. This recreational use will exist now for future generations. The trail corridor will also provide wildlife habitat in agricultural areas which is relatively devoid of good wildlife cover.

7. Any Irreversible and Irretreivable Commitments of Resources Which Would be Involved in the Proposed Action Should it be Implemented - The acquisition and development of the project would result in the conversion of an abandoned railroad right-of-way into a permanent recreational linear trail. Acquisition of project lands with Land and Water Conservation Funds will commit the land to recreation and open space. Section 5(f) of the Land and Water Conservation Fund 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. No other land uses (other than recreation) will be permitted in the project area unless this change is authorized.
8. Alternatives to the Proposed Action - If no action is taken to acquire and maintain these lands, the goal of providing a recreational trail for trail users and future generations cannot be accomplished.

It would be extremely difficult for the Chicago North Western Railroad to dispose of the entire right-of-way to adjacent landowners. In some cases the adjacent landowner does not desire the additional fifty or one hundred feet. Land which was not disposable would benefit no one except wildlife. This situation exists now in the towns which the Chicago North Western Railroad has offered the right-of-way for sale. Some parcels have been purchased but there is still portions of right-of-way which is owned by the Chicago North Western Railroad.

Acquisition of an abandoned railroad right of way is an ideal method of establishing a linear trail for a considerable distance. The right-of-way provides one hundred feet which is sufficient to provide three adjacent trail beds for six types of uses. Negotiation of a right-of-way involves only two parties in contrast to establishing a trail through private land. Purchasing an abandoned right-of-way will not require the use of eminent domain as would establishing a trail over private land owners.

The State has been criss-crossed with railroad lines for almost two centuries. These lines were established when railroad lines were the only means of travel and the most efficient means. Since that time new means of travel have been established resulting in the abandonment of some railroad lines. As these lines are abandoned they provide an excellent means for establishing a linear trail and eventual long range goal of establishing a statewide trail system which would connect these lines within reach and desirable.

LUCE LINE TRAIL - 27-00396

1. Description of the Proposed Action

Authorization - In 1973, the Minnesota State Legislature amended Minnesota Statutes 1971, Section 85.151, subdivision 1, establishing (appendix A) the Luce Line Trail. The Act authorized the Commissioner of Administration, for the Commissioner of Natural Resources to acquire by gift or purchase, the abandoned right-of-way of the Chicago North Western Railroad Company for development as a multi-use trail. The Act also authorized the Commissioner of Natural Resources to establish, develop, maintain and operate this trail in cooperation with local units of government and private individuals and groups.

The Minnesota Department of Natural Resources (DNR) through the Commissioner of Administration acquired by direct purchase approximately 104 miles of the abandoned Chicago and North Western Railroad Company right-of-way originating at Gleason Lake in the City of Plymouth, Hennepin County, and following the right-of-way west terminating at Gluek, Minnesota in Chippewa County.

The Minnesota Department of Natural Resources by this action proposes to develop a six mile bicycle treadway and an adjacent trail for horseback riders, on the abandoned railroad right-of-way between state highway 101 in Plymouth and Stubbs Bay Road in the City of Orono in Hennepin County. Development will consist of the removal of unsalvaged railroad ties; installation of culverts, bridge decking and safety railings, blading, shaping, ditching, compacting and surfacing with limestone a six mile bicycle trail; brushing, blading shaping, ditching, corduroying, compacting, and rolling a six mile trail for horseback riders, installation of fence along the six miles and construction of two parking lots.

Eventually the entire abandoned right-of-way will be developed as a multi-use trail for outdoor recreational activities. It will allow for snowmobile and nonmotorized uses. To provide a variety of trail uses, snowshoeing, skiing and snowmobiling will be allowed during the winter. In the summer bicycling, hiking and horseback riding will be allowed. The trail will be developed in three phases with some of the users excluded until other paths beside the original roadbed can be developed. In some areas, because of the terrain, width of the right-of-way, residential development, etc., certain types of uses will not be permitted. All motorized vehicles will be prohibited from the trail with the exception of snowmobiles. The trail will be developed to fill the needs of the greatest user demand consistent with sound environmental considerations.

The horseback trail will be brushed out removing some natural vegetation which has grown up since abandonment. Any woody vegetation remaining after construction will be allowed to return to natural succession. Trees and shrubs will be planted along the trail to improve the aesthetic and wildlife value of the property where they do exist.

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2. Description of the Environment

Some homes abut the right-of-way, for the first four miles west of Plymouth, in addition to golf courses, pasture land, crop lands, marshes, lakes, open fields and municipal property. The heaviest concentration of homes exists in the City of Wayzata. Scattered homes exist in the cities of Orono, Independence and Minnetrista in Hennepin County.

In Hennepin County, there are no leases for grain elevators, oil storage tanks or other commercial developments. However, leases or easements for gardens and grade level farm crossings and other uses exist.

The portion of abandoned right-of-way west of the Hennepin County line runs through rural small towns and agricultural farm lands. The railroad has removed all salvageable rails and ties. Some bridges and culverts still remain in that section or right-of-way in Hennepin County. Many old ties which were not salvaged are strewn on the side slopes of the railroad bed. Weeds, shrubs and trees have started to engulf the right-of-way in many areas. In some cases this is the only natural vegetation in the area.

Encroachment exists in some places along the right-of-way. This does not include those landowners with current valid licenses, leases or contracts issued by the railroad or Northern States Power Company that permit special use of designated sections of the right-of-way. Some fences cross or do not follow correctly the right-of-way boundary line and the grade level road or farm crossings have been erected without obtaining valid crossing permits.

Overhead power lines exist on the six miles of trail between Highway 101 in Plymouth and Stubbs Bay Road in Orono. These lines were not purchased by the State of Minnesota. They are not screened. Other power lines and telephone lines cross the trail at various points. These are also unscreened. Sewer, gas and buried cable are under the trail right-of-way but do not adversely effect the beauty or function of the trail.

3. The Environmental Impact of the Proposed Action

Enhancement of the environment will result because of the development of a bicycle treadway and horseback riding trail. The environment at present consists of weeds, ripped up railroad bed and discarded railroad ties. To enhance the environment the department proposes to remove the discarded railroad ties and use them for corduroy in developing the horseback trail. The railroad bed will be bladed, shaped, ditched, compacted and surfaced with limestone. Culverts will be installed to prevent erosion and allow drainage.

The horseback trail will be brushed out removing some natural vegetation which has grown up since abandonment. Any excess vegetation removed during construction will be allowed to return by natural secession. Trees and shrubs will be planted along the right-of-way between the trails and adjacent private property where they do not exist.

STATIONED IN SOUTHERN CO. BOTT. COMBES, BEARING TRUCK, CROB TRUCKS, SOME POWER SPOT AND LIGHT-OF-WAY, FOR THE FIRST TIME WITH MOST OF DESCRIPTION OF THE ENVIRONMENT

A crushed limestone surface will be developed for bicycles on the old railroad bed. This surface will be approximately eight feet wide and four inches thick. Horses will be restricted from this pathway since hoofs damage the limestone surface, however horses will be allowed on a separately designated trail which will run parallel to the old railroad bed. The discarded ties along the trail will be used to corduroy low land sections of the trail where horses are permitted.

The enabling legislation for this trail provides that fencing will be provided by the state on portions of the trail according to need. Protection of homes and crops is the major consideration. Livestock fences presently exist in areas where they are needed to confine cattle. In addition to protecting private property fencing will be erected to prevent encroachment of private interests. reduce the need for fencing, however, it is not considered the complete solution.

A landowner may erect any type of fence, he desires, which is consistent with local government ordinances. fencing and keep the trail clear of their designated trail. Trees and shrubbery will also help

Residential fencing will differ from agricultural fencing. Consideration is being given to four foot high, four strand barbed wire or plain steel post fence for agricultural areas. This type of fence is identical to the old railroad fence. In residential areas, four foot high wood post, woven wire freeway fence is being considered.

Fence materials will be provided and erected by the state but the abutting landowner will be required to maintain it. The fence will be erected on the state owned boundary line after consultation with the landowner. Eventually, the state will screen the fencing with natural vegetation. signs will be placed at all road and highway crossings will be notified of impending "stop sign" 300 feet before

Driveway, farm implement and livestock crossing easements granted to the landowner from the railroad or Northern States Power Company will be renewed by the state. To reduce the number of hazardous trail crossings, new crossing easements will be limited. Crossings presently being used but without written permission in the deed, will be renewed on an individual basis. Crossing easements for new underpasses or overhead bridges as a substitution for old grade level crossings will be reviewed, and if approved, granted on an individual basis. The landowner will be required to pay the construction costs.

Vegetation growing along the right-of-way will be controlled by park The general policy for "garden" leases and other permits will be to gradually phase these types of uses out through terms of the contract. Regulations of trail rules and regulations will be provided by the

In general, the state will maintain all the proposed facilities related to the trail that it installs. The only exception will be fences. Litter generated by the users will be removed by state employees. Noxious weeds growing on the trail bed will be controlled by spraying. Trails will be properly signed for safety of use. Laws of state trails

will report violators to the conservation officers. County sheriffs and highway patrol officers can also warn, detain and arrest violators. Violations will occur on state trails but by using preventive measures, informing the public and effective arrests by conservation officers, sheriffs and highway patrol officers, - 3 -, violations can be minimized.

4. Mitigating Measures Included in the Proposed Action

Major concerns involve trail uses in the SMSA of Hennepin County. Snowmobiling will not be allowed on the trail between Vicksburg Lane in Plymouth and Stubbs Bay Road in Orono, a distance of seven miles.

Use will be restricted to horseback riding, hiking, biking, skiing, and snowshoeing in this area. All uses, including snowmobiling, and hunting with certain restrictions will be allowed on the balance of the Luce Line Trail to Gluek, Minnesota in Chippewa County. This portion of trail will be developed in phases as demand warrants.

In most cases natural regeneration of vegetation will reduce the need for planting, however, it is not considered the complete solution. Planting will be necessary to control and prevent erosion on side slopes. Planting will be used to screen fencing and keep the trail users on their designated trail. Trees and shrubbery will also help to eliminate noise from trail users. A benefit of planting vegetation is the habitat it will provide for small game birds and animals such as rabbits, fox, pheasant, mice and other small rodents. Planting will screen users from the surrounding landowners and screen the landowners activities from the user.

Proper signing of the trail will insure safe operation and a minimum of complaints from private owners of users straying from the trail. A "trail boundary" sign will be used to indicate common boundaries between landowners and the State. These are to be placed approximately thirty rods apart. A "stop" sign will be placed at all road and highway crossings. Users will be notified of impending "stop sign" 300 feet before the stop is required, "danger" signs will indicate where caution is necessary such as narrow bridges, steep grades, and road crossings.

Litter will be removed by state maintenance workers or contracted refuse collectors on a normal basis. Litter cans will be placed at access points and waysides. The extent of this problem should be minimal because trail users are limited in the amount of litter they can carry.

Noxious weeds growing along the right-of-way will be controlled by park and recreation workers.

Enforcement of trail rules and regulations will be provided by the Department of Natural Resources Conservation Officers as authorized by the Commissioner of Natural Resources delegation order number 197. Violations of these rules and regulations is a misdemeanor carrying a fine of up to \$300 and/or ninety days in jail. In addition, all supervisors, guards, custodians, keepers and caretakers of state trails poses the authority and powers of peace officers and can warn, detain and report violators to the conservation officers. County sheriffs and highway patrol officers can also warn, detain and arrest violators. Violations will occur on state trails but by using preventive measures, informing the public and effective arrests by conservation officers, sheriffs and highway patrol officers, nuisances can be minimized.

5. Any Adverse Environmental Effects Which Cannot be Avoided Should the Proposal be Implemented

During construction of the trails the beds will be leveled which may destroy about five feet of adjacent shrub cover. However, shrubs will be allowed to regenerate along the individual trail corridors since it is desirable to screen users from adjacent landowners and lessen the noise from users. Shrubs along the corridor will regenerate in a few years.

Traspassing by trail users will be held to a minimum by providing and erecting fencing at the landowners request. Park facilities will be provided along the trail on public lands to prevent useess from parking on township and county roads or private property. There still remains the possibility of users leaving the trail seeking adventure on their own. Although the landowner may call enforcement officers to make arrests, these adventurers are seldom caught.

6. The Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

Adjacent lands, for the most part, are used for agricultural purposes. Adjacent landowners; as a short-term use, after leveling the railroad bed and removing the gravel and rock overburden, could farm this land. Whether this is an economical undertaking, would be for the adjacent landowners to determine. Most land previously sold to landowners is in small towns and used as an extension of the homeowners backyard. Very few of these owners have removed the railroad bed.

The long term use would be to provide recreational trail corridors for people in the surrounding areas. Restricting users to the trail would lessen the possibility of trespassing on private lands which exists now. This recreational use will exist now for future generations. The trail corridor will also provide wildlife habitat in agricultural areas which are relatively devoid of good wildlife cover.

7. Any Irreversible and Irretreivable Commitments of Resources Which Would be Involved in the Proposed Action Should it be Implemented

The acquisition and development of the project would result in the conversion of an abandoned railroad right-of-way into a permanent recreational linear trail. Acquisition of project lands with Land and Water Conservation Funds will commit the land to recreation and open space. Section 6 (f) of the Land and Water Conservation Fund 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.

No other land uses (other than recreation) will be permitted in the project area unless this change is authorized.

II. Alternatives to the Proposed Action

Acquisition and development of an abandoned railroad right-of-way is an ideal method of establishing a linear trail for a considerable distance. The right-of-way provides one hundred feet which is sufficient to provide three adjacent trail beds for six types of uses. Negotiation of a right-of-way involving only two parties in contrast to establishing a trail through private land. Purchasing this abandoned right-of-way did not require the use of eminent domain as would establishing a trail over private land.

The State has been criss-crossed with railroad lines for over a century. These lines were established when railroads were the most efficient means of land travel. Since that time new means of travel have been established resulting in the abandonment of some railroad lines. As these lines are abandoned they provide an excellent means for establishing a linear trail with the least damaging impact to social and environmental factors.

In the event of any transfer of such property, any transferee for the period during which the property or structure is used for a purpose involving the provision of similar services or benefits as those provided by the property, this assurance obligates the Applicant-Recipient for the period during which the Federal financial assistance is extended to it by the Bureau of Outdoor Recreation.

FINANCE is given in consideration of and for the purpose of obtaining any and all Federal grants, property discounts or other Federal financial assistance extended after the date hereof to the Applicant-Recipient by the Bureau of Outdoor Recreation, including installment payments after such date on account of such Federal financial assistance which were approved before such date. The Applicant-Recipient agrees that such Federal financial assistance will be extended in reliance on the representations made in this assurance, and that the United States shall reserve the right to seek fulfillment of this assurance. This assurance is binding on the Applicant-Recipient, its successors, transferees, assigns, and the person or persons whose signature appear below are authorized to sign this assurance on behalf of the Applicant-Recipient.

State of Minnesota
Department of Natural Resources
Division of Parks and Recreation
APPLICANT-RECIPIENT


R. H. Peterson
Division of Parks and Recreation