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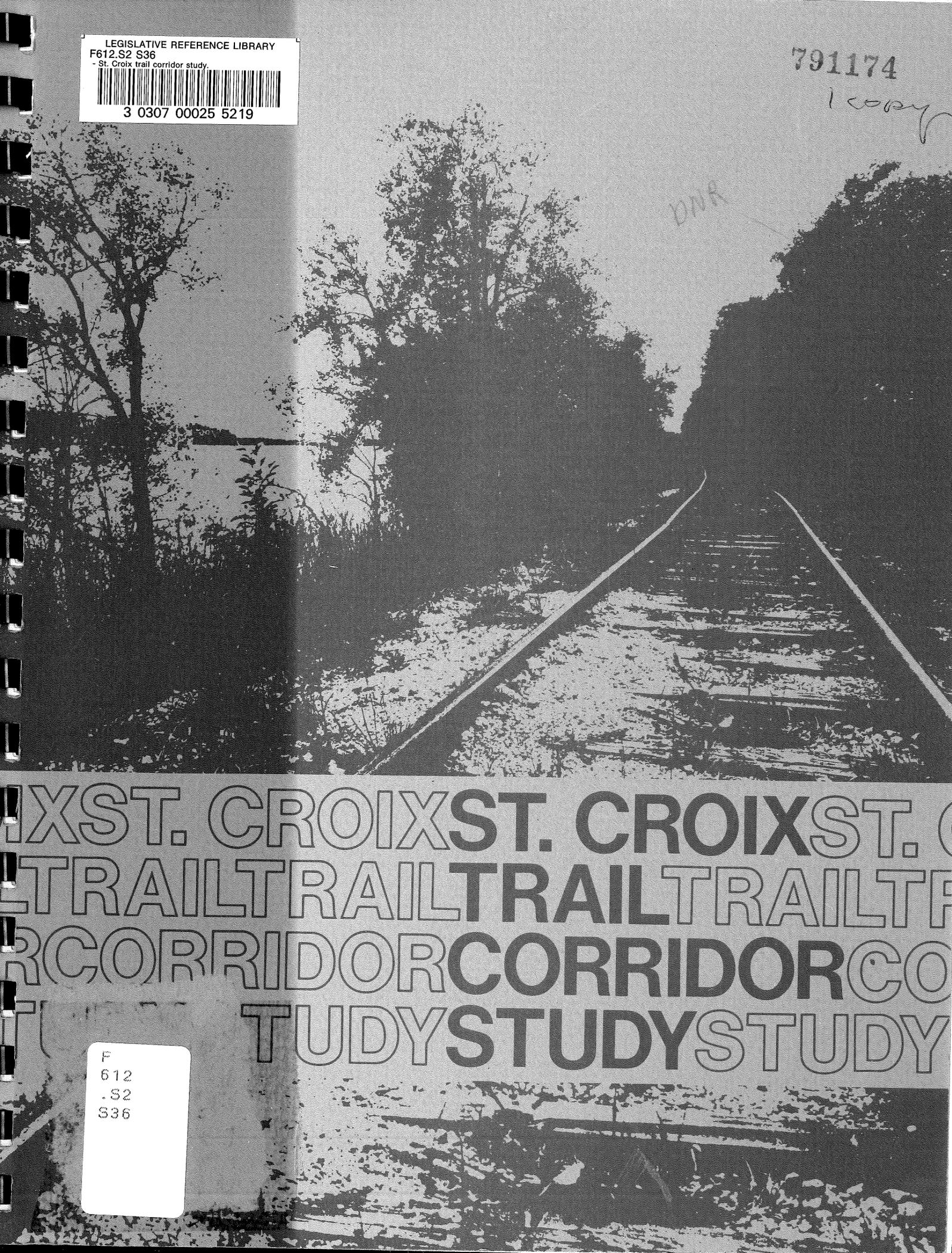
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 - St. Croix trail corridor study



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This Corridor Study has been developed with the assistance of a Citizens Advisory Task Force. Their assistance in this effort has been invaluable. This document represents their consensus regarding trail development should the St. Croix Trail be implemented. It is not their intention to advocate or recommend that the St. Croix Trail be developed.

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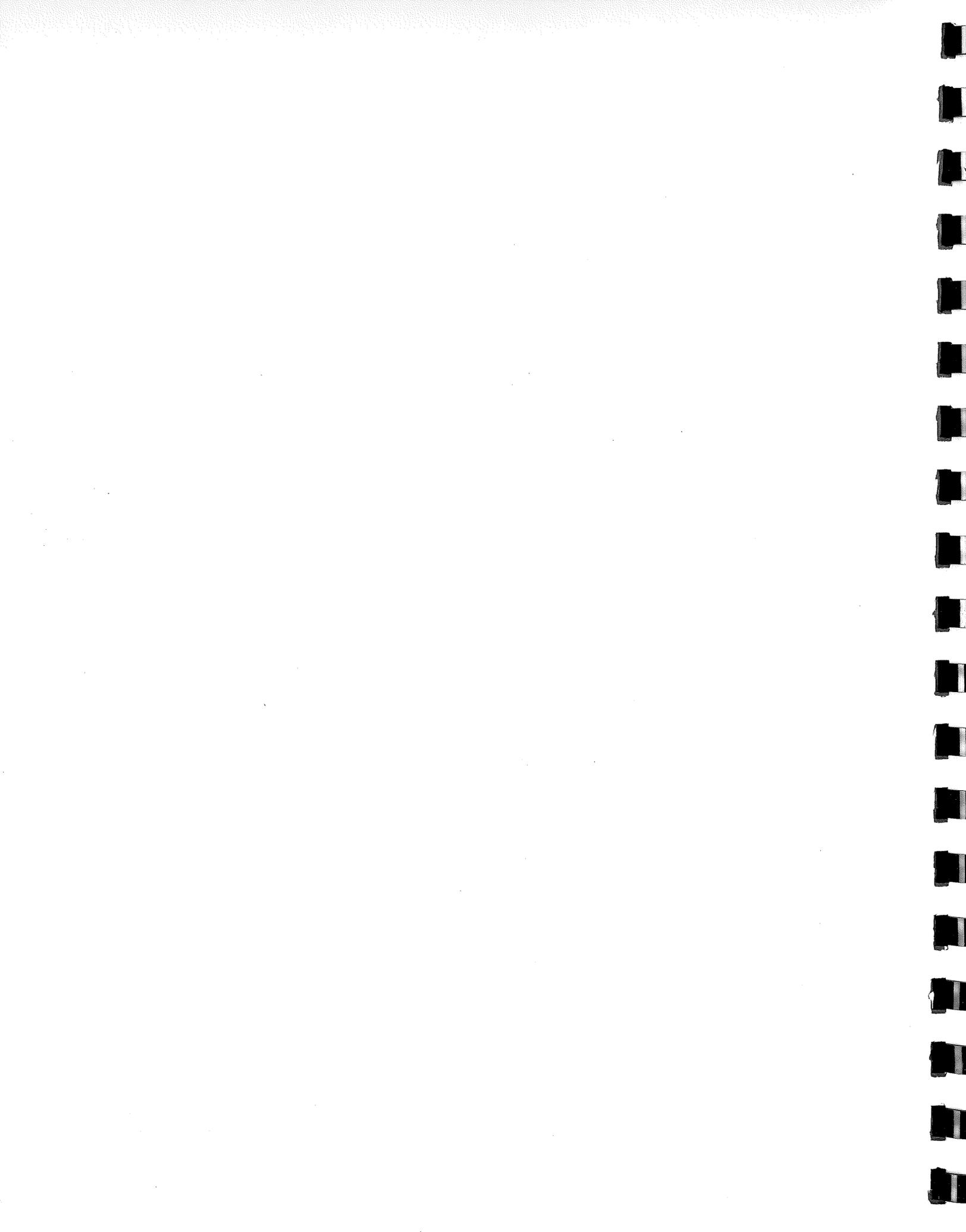
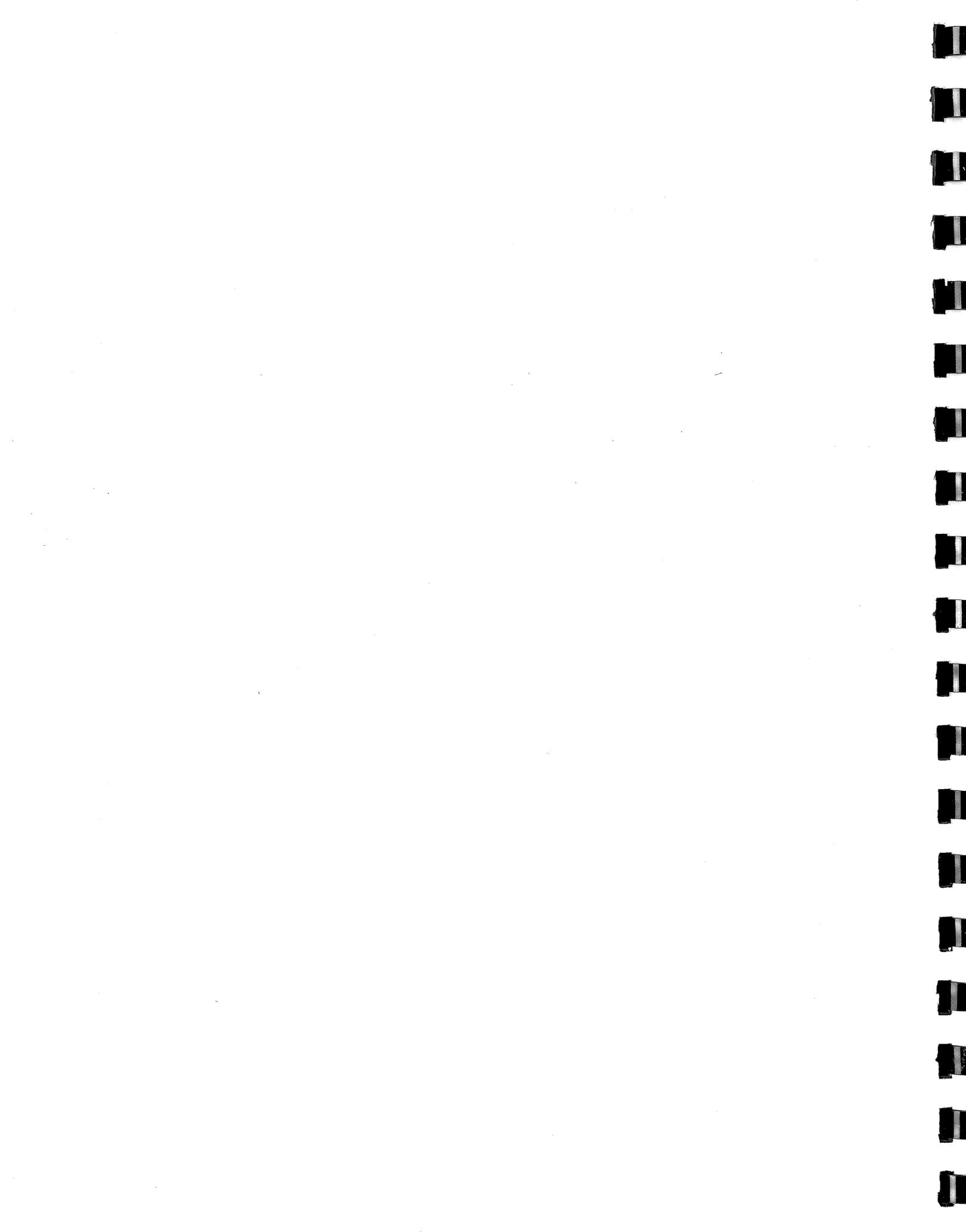


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SUMMARY

The St. Croix Trail Corridor Study is a proposal for a recreational trail along the portion of the abandoned Milwaukee Road railroad line from Hastings, Minnesota to Afton State Park, consisting of 12.15 miles. The first two miles lie adjacent to Conley Lake and the Mississippi River. The remaining ten miles parallel the St. Croix River from Point Douglas to Afton State Park. The major purpose of this document is to present and evaluate all pertinent data necessary to determine the desirability and feasibility of establishing a trail within this corridor considering the area's existing natural and social factors.

The St. Croix River exhibits a number of outstanding scenic, aesthetic, recreational, historical, environmental, and geological values which should be preserved and protected for present and future generations. Partly because this area exhibits such outstanding natural resources, it is experiencing increased development pressures. In response to the potential of these natural resources being endangered by haphazard development, Public Law 92-560 was passed by Congress in October 1972, designating the St. Croix River (below Taylors Falls) as a Wild and Scenic River (Map 1). In order to satisfy the requirements of Public Law 92-560, the States of Minnesota and Wisconsin and the Department of the Interior jointly prepared a master plan for the Lower St. Croix National Scenic Riverway. The overall goal of that master plan was to "preserve the existing scenic and recreational resources through controlled development." To protect the scenic and recreational resources, the Lower St. Croix River Master Plan developed a number of recommendations that appropriate State and local governments should implement. One such recommendation was:

- "Railroad rights-of-way within the riverway boundaries that may be abandoned in the future should, where feasible, be considered for recreational trail use."

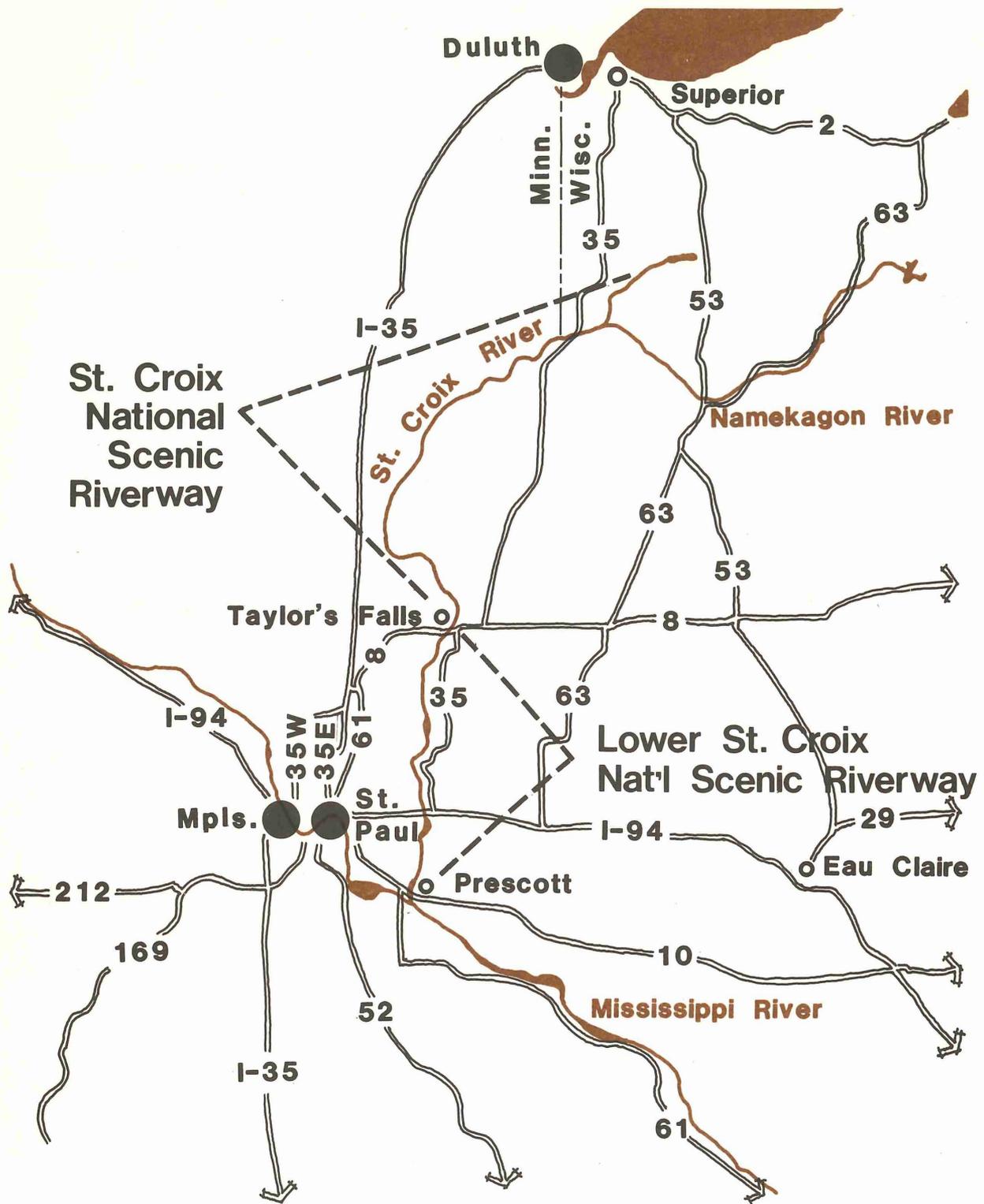
In accordance with this recommendation, the Minnesota Department of Natural Resources (DNR) is considering the abandoned Milwaukee Road railroad line for recreational trail use.

The planning process included an inventory of the existing natural resources and an extensive public involvement program. The public involvement process consisted of public meetings with area residents and potential users to obtain their input regarding problems, desires, and design elements. In addition, a citizen advisory committee was formed with representatives from area residents, potential users, and local governments. This citizen committee assisted in redefining and prioritizing potential problems, developing alternative solutions, and developing a preliminary trail concept. Their objective throughout the planning process was: "If there is to be a trail, then we (the Committee) and the Consultant will help the DNR to arrive at the alternative which best addresses our concerns while remaining environmentally sound."

The major recommendation of the advisory committee is that the St. Croix Trail, if implemented, should be developed in keeping with the designation of the St. Croix River as a National Wild and Scenic River. To maintain a wild and scenic character the following specific recommendations were made with respect to trail characteristics:

- A non-motorized trail for biking, hiking, and cross-country skiing.
- Controlled public access.
- Support facilities designed in accordance with all zoning guidelines of the Lower St. Croix River Master Plan.
- Vegetation management in keeping with Lower St. Croix Master Plan
- Development and management should place primary emphasis on maintaining and enhancing the aesthetic, scenic, historic, wildlife, and geologic features.

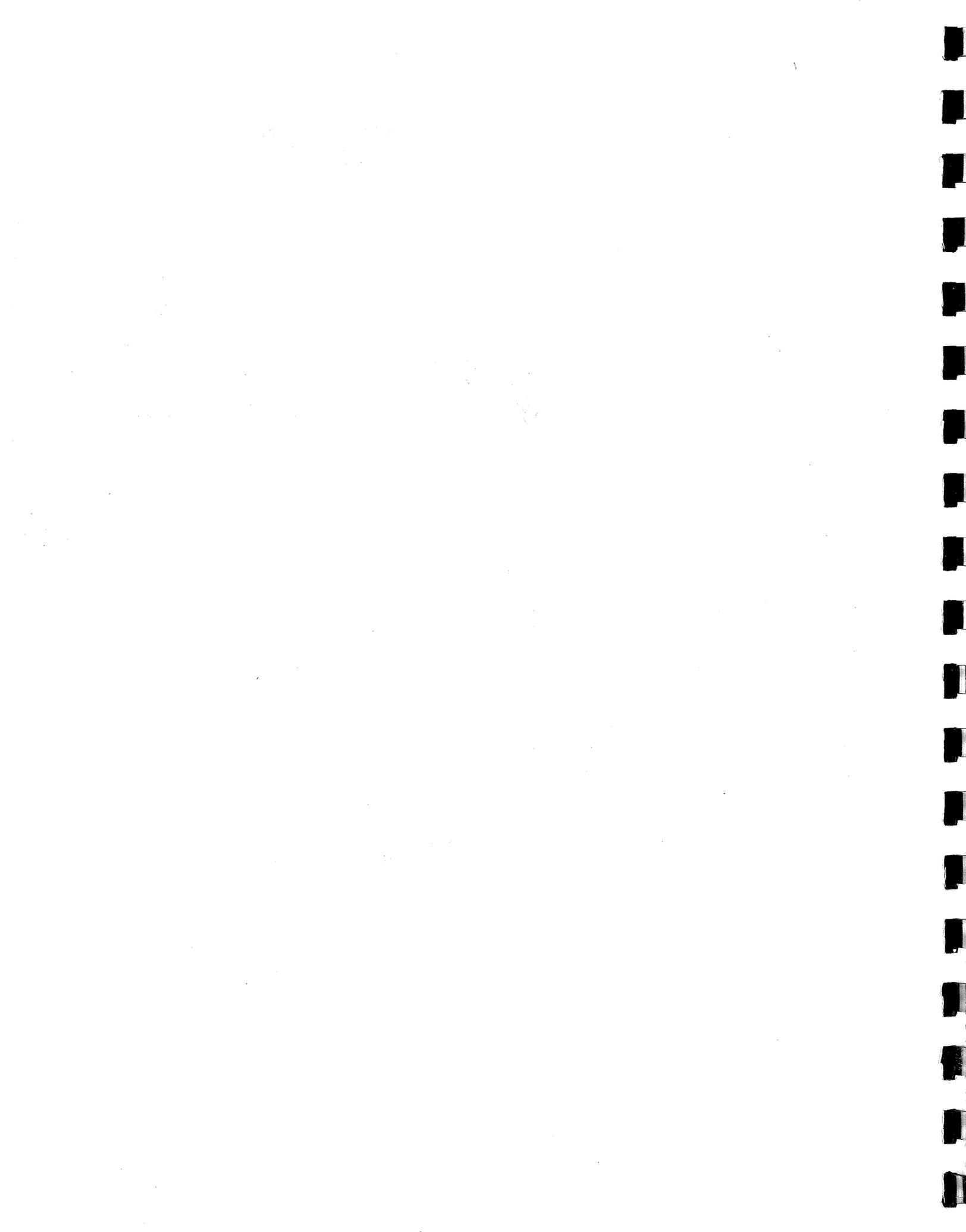
The St. Croix Trail Corridor Study is a detailed analysis of a limited area within the St. Croix Valley and follows the recommendations and intent of the Lower St. Croix River Master Plan. It also makes specific site design proposals in keeping with a National Wild and Scenic Riverway.



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St. Croix River

MAP 1



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INTRODUCTION

Trails have played a very important role in the development of this country and led to the westward expansion. The first trails were developed by Native Americans and served the major purpose of providing transportation routes into the west. These early trails were the forerunners of the extensive highway network which crisscrosses this country today. As leisure time and an awareness of the environment increased, there developed a need to provide recreational opportunities for the individual to experience his natural surroundings. The last ten years have seen a phenomenal interest in trail opportunities. Today many communities have developed, or are currently developing trail plans based upon this demand. There are presently a number of Federal and State funding programs to help communities develop trail opportunities..

In response to this demand, the State of Minnesota began planning and development of recreational trail opportunities in the late 1960's. The initial planning was in response to a demand for snowmobiling trails and related facilities. In 1967, the Division of Parks and Recreation within the Department of Natural Resources (DNR) was given the responsibility to promote and develop trail facilities for snowmobiling. The first major trail authorized in the State was the Minnesota Valley Trail which parallels the Minnesota River. While providing snowmobiling, this trail does offer other trail experiences such as hiking and horseback riding. At the same time, the DNR was authorized to establish, develop, maintain and operate recreational areas. Since that time, the State has authorized twelve additional trails. These thirteen trails provide the 1300 mile backbone of an existing 8,500 miles of trail opportunities in Minnesota.

In 1973, the state legislature authorized the formation of the DNR Trails Section to develop state trails and other recreational trails to meet the increasing demand. In 1975 the legislature passed the Outdoor Recreation Act to insure uniform development and management of a statewide recreation system, including trails. It also set forth standards by which future trail opportunities could be evaluated for their potential. In November of 1977, the Trail Planning Section was formed within the Office of Planning and Research to carry out the provisions set forth in the Outdoor Recreation Act.

The possibility of a St. Croix Trail arose in early 1978 when the Milwaukee Road filed an application with the Interstate Commerce Commission to abandon its operation between St. Croix Junction (Hastings) and Bayport, Minnesota (Map 2). This proposed abandonment includes approximately 22.2 miles of trackage, which parallels the west shore of the St. Croix River, and passes through the communities of Hastings, Denmark Township, Afton, St. Mary's Point, Lake St. Croix Beach, Lakeland Shores, Lakeland, and Bayport.

The study area for the proposed St. Croix Trail includes only the southern 12.15 mile portion of the Milwaukee Road abandonment. Within the northern portion of the abandonment, there already exists a paved, grant-in-aid recreational trail which parallels Highway 95 from Interstate 94 south to the City of Afton. This grant-in-aid trail is proposed to link up with a future trail which will parallel the new Interstate 94 into St. Paul. If the St. Croix Trail becomes a reality, there would exist a missing segment of approximately one mile between the northern terminus of the St. Croix Trail and the existing grant-in-aid trail. At that time, the feasibility of connecting these two trails should be studied.

In late March of 1978, the DNR and local legislators held a public meeting to elicit comments from the area residents concerning a recreational trail. At that meeting, there was strong opposition voiced against development of a St. Croix Trail. There was, subsequently, an amendment to H.F. 1878, Chapter of Laws of 1978, passed by the state legislature which required the DNR to develop a comprehensive management plan prior to acquisition and development of a St. Croix recreational trail. The plan must evaluate the effects such a trail would have upon the adjoining properties.

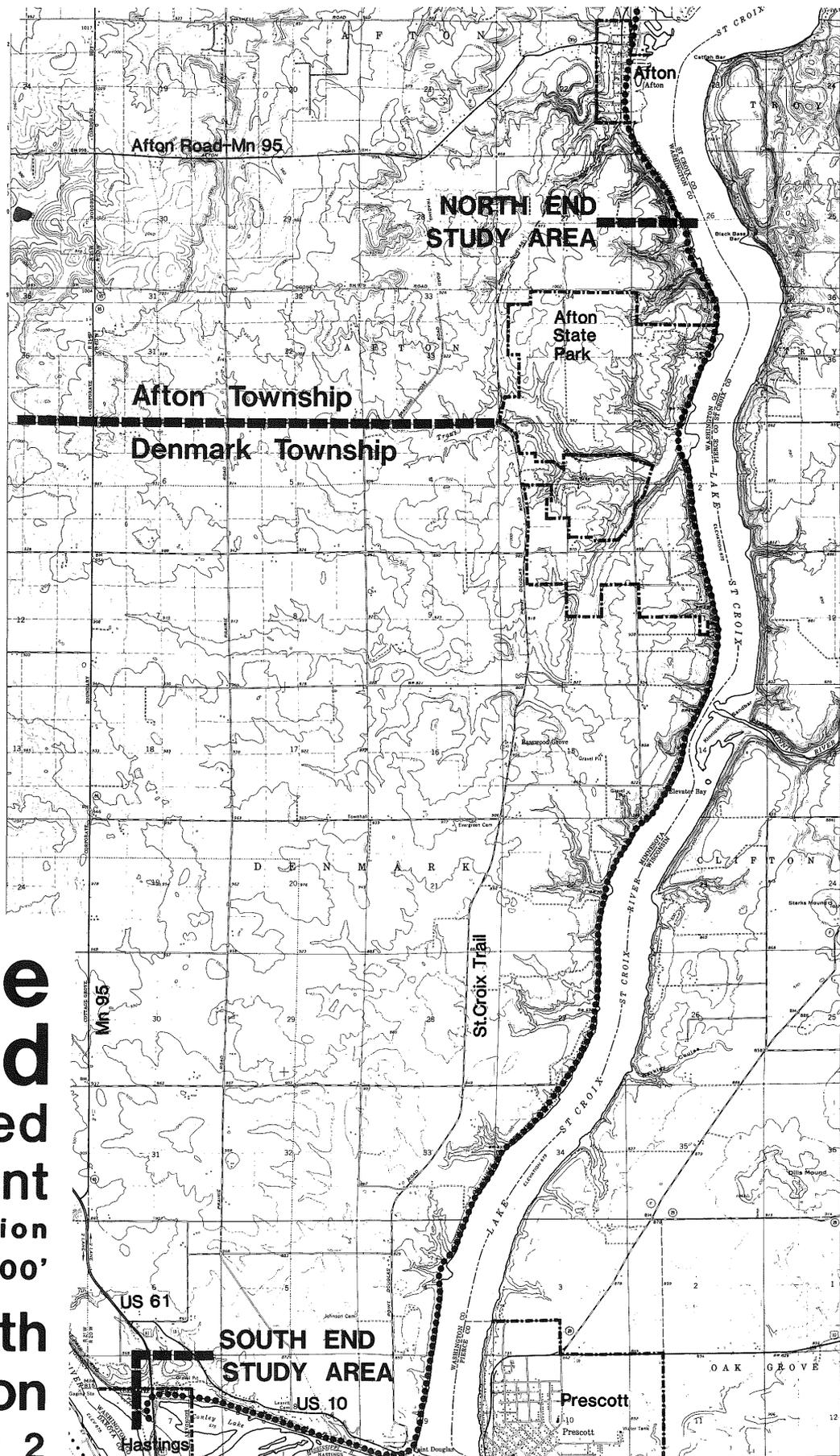
This management plan has been developed in accordance with this requirement and addresses potential effects such a trail would have upon existing natural and social factors.

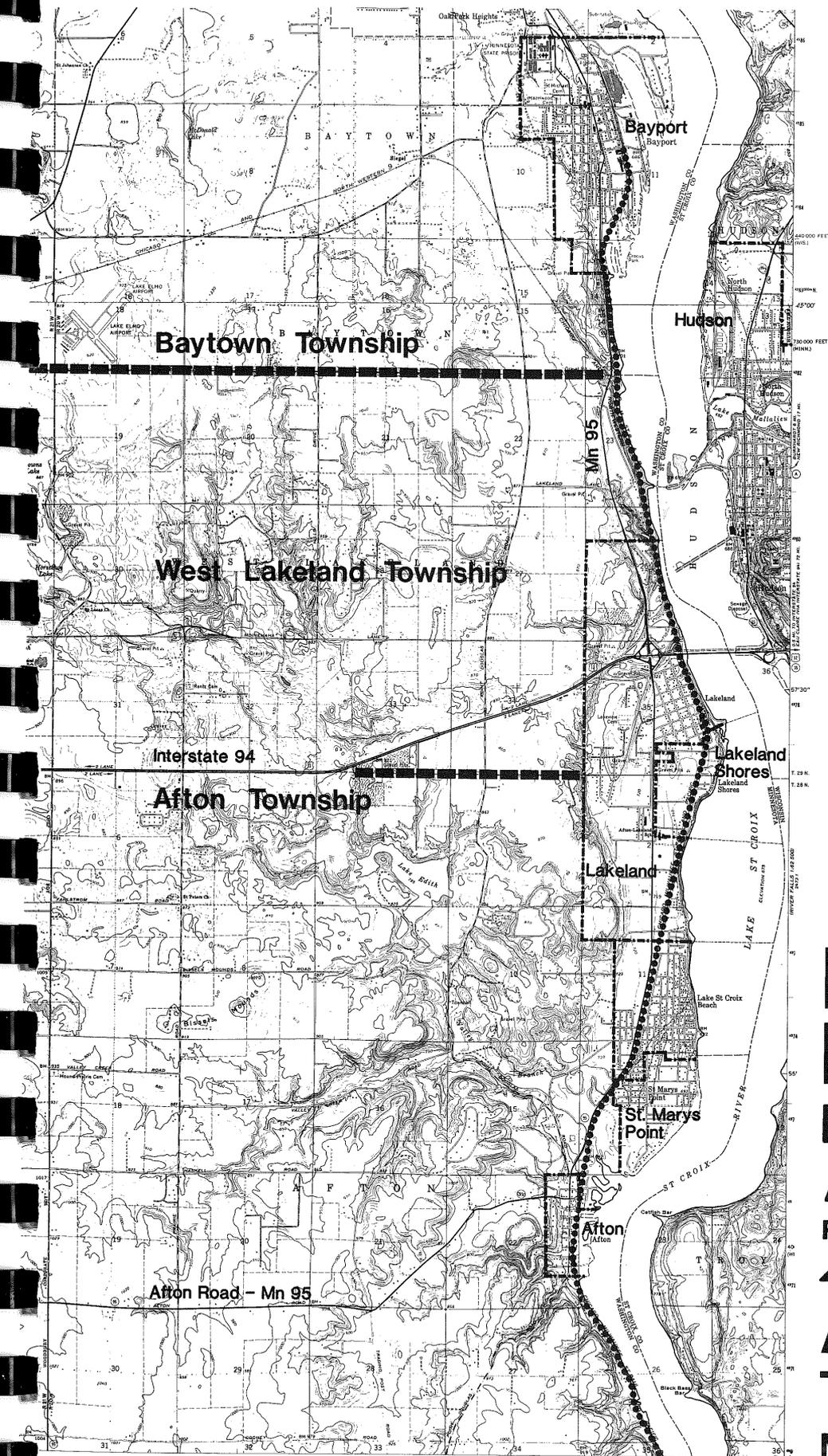
Milwaukee Railroad Proposed Abandonment

Rail Line Location
▲ n Scale: 1":6000'

Hastings North To Afton

MAP 2





**Milwaukee
Railroad
Proposed
Abandonment
Rail Line Location**
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**Afton North
To Bayport
MAP 2**



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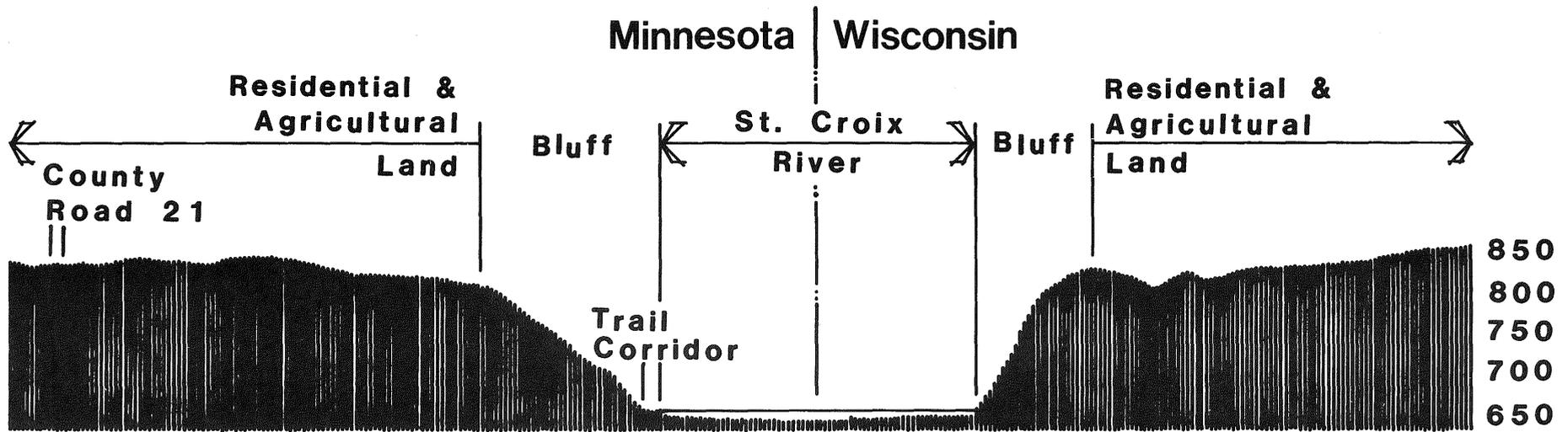
RESOURCE ANALYSIS

The Lower St. Croix River is a free-flowing river which offers scenic, recreational, and geological values of a distinctive nature to the large population of the Minneapolis/St. Paul area. The river is long enough to provide a meaningful recreational experience and has sufficient volume of water during normal years to permit full enjoyment of water-related activities. The Lower St. Croix, overall, is a resource of high quality.

GEOLOGY, TOPOGRAPHY AND SOILS

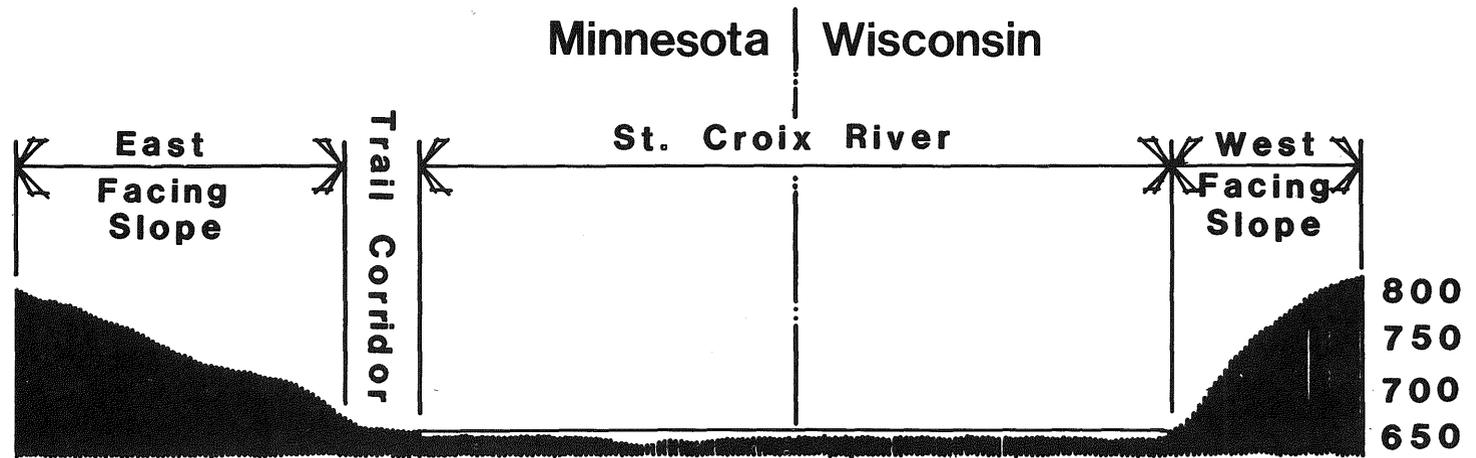
The Lower St. Croix River Basin was formed by runoff from the ice-age Lake Grantsburg. As glacial ice melted, Lake Grantsburg was created spreading from Grantsburg, Wisconsin to east-central Minnesota. As the resultant lake level rose, it finally spilled over its banks near Taylors Falls. As the waters flowed southward towards the Mississippi River, it carved the St. Croix Valley. The river flows through a deep valley with occasional bluffs of sandstone and limestone between Taylors Falls and Prescott. Many of these bluffs are covered with a thin mantle of silt or sandy loam over rock. Around Afton, these bluffs recede from the river forming large, somewhat level, terraces of sand and gravel. The few intermittent streams which enter the valley have created small outwash deltas which provide the only opportunities to get down to the river's edge. The majority of the valley is about 1/2 mile wide from bluff to bluff and averages about 150 feet deep to the water level. The valley sides are usually very steep and rocky. The soils found on the steep slopes are very susceptible to erosion, but erosion has only occurred where vegetation has been removed.

The existing railroad bed has been cut into the side of the west valley wall. In some cases there are sheer rock walls on both sides of the rail line. Along the twelve mile corridor many opportunities exist to develop interpretive exhibits depicting formation of the St. Croix Valley and construction of the railroad line.



River Valley and Bluff Tops

Scale: Horizontal 1":1000' Vertical 1":200'



River Valley

Scale: Horizontal 1":500' Vertical 1":200'

Typical
Sections

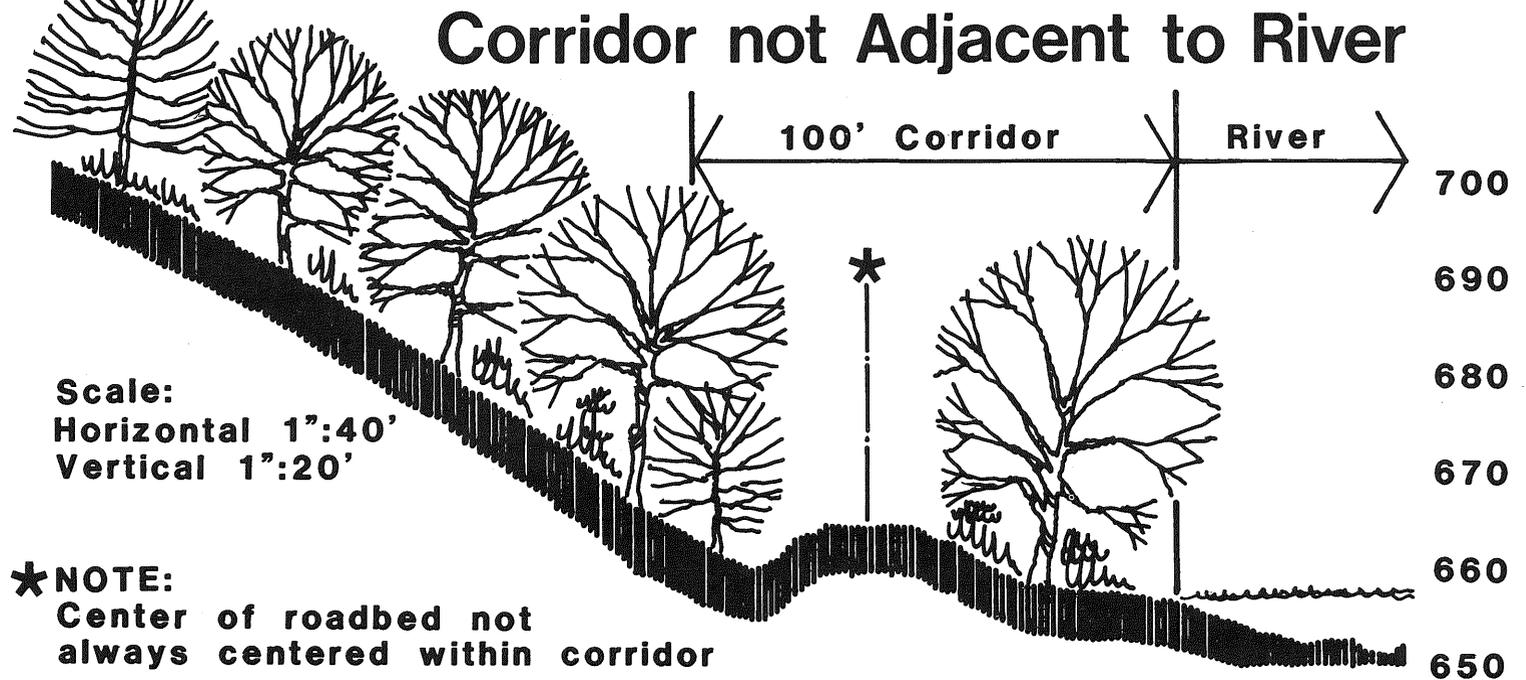
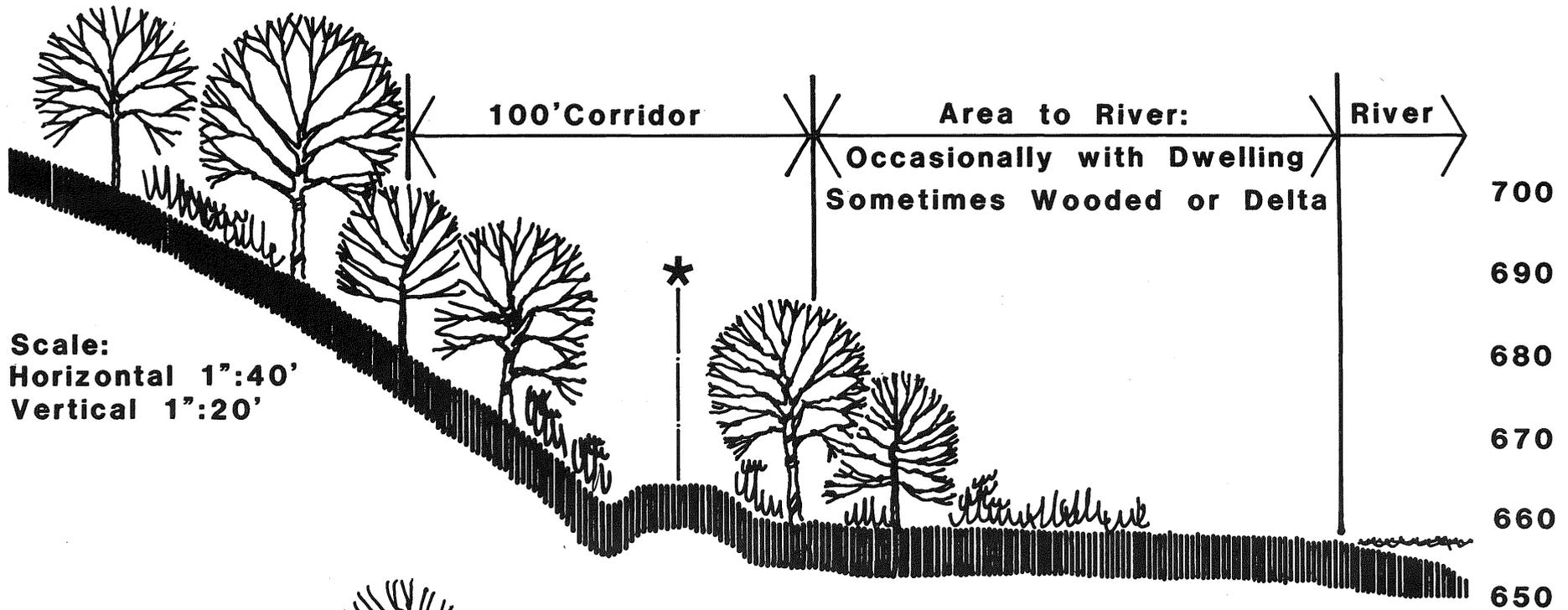
ECOLOGY

Vegetation of the upper flat areas behind the bluff line is oriented to agricultural use with the flat or gently sloping land under cultivation or in orchards. The more rolling terrain behind the bluff line is predominantly utilized for cattle grazing. The original vegetation of this area consisted of stands of white and red pine, with oak savanna on the flatter terraces. Early logging operations removed the white and red pine except for a few isolated stands which still exist on the very steep slopes. The only remnants of the original oak savanna can be seen in Afton State Park. Today, very little is left of the original vegetative character because logging and intensive farming operations have resulted in the clear-cutting of most of the valley. The existing vegetation within the valley today is second growth hardwoods consisting of maple, basswood, white oak, black oak, butternut, and shagbark hickory. These hardwoods intermingled with conifers attract many visitors to the valley to enjoy the spectacular autumn colors. Associated with the frequently flooded deltas and sandbars are cottonwoods and willow. The understory species commonly found in the valley include hornbeam, sassafras, eastern red bud, flowering dogwood, and red maple.

The St. Croix Valley offers an attractive, protected habitat for a variety of wildlife. An abundance of waterfowl, marsh birds, upland game birds and songbirds inhabit the river valley. Mammals which inhabit the valley include white-tailed deer, mink, muskrat, raccoon, squirrel, woodchuck, fox, rabbit and skunk. Other smaller mammals include chipmunks, weasels, gophers, mice, moles, and shrews. There are also numerous species of amphibians and reptiles. There are no known endangered wildlife species or habitat within the valley. There have been isolated sightings of eagles but no known nesting areas have been identified. All wildlife encountered within the valley is fairly adaptable and will tolerate some degree of human intrusion as long as their habitats are kept within reasonable conditions.

There are sixty-seven known species of fish which inhabit the Lower St. Croix River. The fisheries are strongly influenced by the Mississippi River and the dam at Taylors Falls. Black crappie, white bass, bluegill and walleye are the predominant game fish. Other game fish include northern pike, small and large mouth bass, rock bass, yellow perch, and sunfish species. Boat fishing, bank fishing, and ice fishing represent one of many recreational uses of the St. Croix.

Typical Sections



Corridor Adjacent to River

The trail corridor offers many opportunities to interpret existing wildlife, wildlife habitats, and original stands of vegetation. The corridor also exhibits a wide variety of autumn colors for scenic walks or drives. The river also provides good fish habitat, creating many opportunities for boat or bank fishing.

THE RIVER

The Lower St. Croix River displays a variety of characteristics. Within the trail corridor study area, the river is relatively wide and deep taking on the features of an elongated reservoir-like lake. There are a limited number of excellent sand beaches bounded by steep, wooded slopes. This area is referred to as Lake St. Croix. Two major constrictions occur within Lake St. Croix in the trail corridor area - the deltas at the mouth of the Kinnickinnic River and at the City of Prescott.

Normal water level of Lake St. Croix is at 675 feet above sea level with 692.5 being the highest water level ever recorded, occurring during the 1965 flood. The 100-year flood elevation has been set at 692 feet and the 500-year flood elevation at 696.5. Elevation of the railroad bed is between 697.0 and 707.0 feet within the proposed trail corridor. During a period of high flooding there may be some bank erosion, but the likelihood of erosion on top of the railroad bed is extremely low.

Agricultural, residential, and industrial sources of pollution are present within the Lower St. Croix River. The water quality, however, still remains excellent with dissolved oxygen normally at saturation level. Within the Lower St. Croix there are presently seven incorporated communities which have municipal wastewater treatment facilities. Six of them - Hudson, Bayport, Stillwater, Taylors Falls, St. Croix Falls, and Osceola - all discharge wastewater into the St. Croix. The seventh, Prescott, discharges into the Mississippi River. There are six communities that are, at present, unsewered--Afton, St. Mary's Point, Lake St. Croix Beach, Lakeland Shores, Lakeland, and Marine on St. Croix. As the demand for increased development occurs, it will become more important that all wastewater is adequately treated. Because of the steepness of the valley, erosion can also cause minor pollution problems when existing vegetation is removed or altered. There is also some stream sedimentation at the deltas and increased turbidity at times of heavy runoff.

River ecology offers a variety of interpretive experiences, from aquatic vegetation and wildlife to the development of shoreline types. There are numerous opportunities along the corridor to develop interpretive exhibits.

CLIMATE

The climate within the Lower St. Croix River basin is characterized by very warm, humid summers and cold, snowy winters. The area experiences extremes of temperatures during the year with an average temperature of 75 degrees F. in July and 11 degrees F. in January.^{1/} Precipitation averages 27 inches which includes an average annual snowfall of 40 inches. Due to the orientation of the valley itself and the location of the proposed trail corridor at the bottom of the west valley wall, the corridor is protected during the winter from the prevailing northwest winds. When the top of the bluff is experiencing very cold and windy weather conditions, the bottom of the valley can be quite pleasant. The corridor is also on the east facing slope of the valley, thereby maintaining snow cover depth for cross-country skiing. These micro-climate differences in the winter are not as noticeable during the summer. There is somewhat of a cooling effect from the close proximity to the river, but the natural conditions which shelter the valley in the winter also shelter it from the summer breezes.

LAND USE

The predominant land use of the area is farming. In the last twenty years, Washington County is one of only two counties in the metro area that has shown an increase in acreage devoted to agriculture. Over half the County is in active farms; the average size is 169 acres, and half of the farm operators have a second occupation. Main crops in the area consist of corn and hay. All of this farmland lies behind the bluff line of the river valley. About 35 percent of the five counties bordering the Lower St. Croix is covered by forest, with the majority of this forest land occurring within the actual valley. The actual valley is close to 80 percent forest land. These forested areas are primarily utilized for watershed protection, wildlife habitat, environmental enhancement, and recreation. Much of the river valley itself is in private ownership, with both year-round and seasonal homes.

^{1/} Baseline Environmental Inventory-Twin Cities Metropolitan Area, Metropolitan Waste Control Commission, December, 1972.

Along the twelve mile trail corridor, the Milwaukee Road owns a one-hundred foot right-of-way, located in close proximity to the river's edge. Along the first two miles of the trail corridor, the upland side of the right-of-way is in private ownership, with scattered homes set high on the bluff line. Closer to Point Douglas there are a few small homes located in close proximity to the right-of-way. Between the right-of-way and the Mississippi River is the main line of the Burlington-Northern Railroad, located slightly below the trail corridor. Along the ten miles of trail corridor which parallel the St. Croix River, approximately 50% of the adjoining land is in public or semi-public ownership (Afton State Park, Control Data Employee Recreational Foundation, Inc., and Carpenter Estate). The remaining 50% of land, in private ownership, is separated from the shoreline by the intersecting right-of-way. In total, there are approximately 90-100 parcels of property in private ownership adjacent to the twelve mile corridor.

ECONOMY

The economy of the Lower St. Croix River is dominated by the Twin Cities metropolitan area. Population within this metro area is expected to continue to increase to a projected population of some 2.5 million people by the year 2000. As the population increases, commercial and industrial development will also increase with the economy of the region expected to remain very strong. With an existing strong economy, area residents are spending a significant portion of their income on recreational activities. As income levels rise and work-weeks become shorter, more time will be devoted to leisure time activities. The annual inflation rate has not had a negative effect on recreational spending; in fact, an increasing portion of the metro families' budgets are being used for recreational activities. The current energy concern has also changed the recreational pattern of the metro area household, causing more recreational dollars to be spent closer to home. With more people spending more money closer to home on recreational activities, existing metropolitan facilities are experiencing increased demands.

Recreation and entertainment are an important part of the local economy. There are a number of marinas, boat works and retail outlets, sporting goods shops, and restaurants within the area. Trail development could bring increased business to these local establishments as has happened in other areas where recreational trails have been developed. In some areas new support and service businesses have been developed catering to the trail user. While this increased spending may or may not be considered advantageous by local residents, certainly uncontrolled development would be detrimental.

In the trail corridor itself, the Milwaukee Road does not pay local property taxes on their holdings. They do pay, in lieu of the property tax, a 5 percent tax on gross earnings which goes into the State general fund.

CULTURAL RESOURCES

Although there are no sites of national historical or archeological significance within the corridor, there are a few locally significant sites. Washington County has a very interesting history, which records many firsts within the State of Minnesota. These firsts relate to the activities of people starting a new life in a new land. Among the firsts are the state's first farm, courthouse, sawmill, grist mill, school, church, and prison. Many of these first sites are located along the St. Croix River north of the proposed trail corridor. Historically, there is evidence that Indians camped in the area of Taylors Falls some 10,000 to 12,000 years ago. In later years, this area was inhabited by the Sioux Indians. As white settlements and exploration moved across the continent, it displaced many Indian tribes, forcing them westward. During the sixteenth century, this westward movement forced the Chippewa into the St. Croix region. This intrusion caused many battles between the Sioux and Chippewa, until the mid 1800's when treaties were signed. At that time, the Indians relinquished their rights to the land.

Early explorers found the valley rich in fur-bearing animals, making the area ideal for the establishment of trading posts. Logging came into prominence in the 1830's. By 1914 most of the area had been cut and the logging industry began to decline.

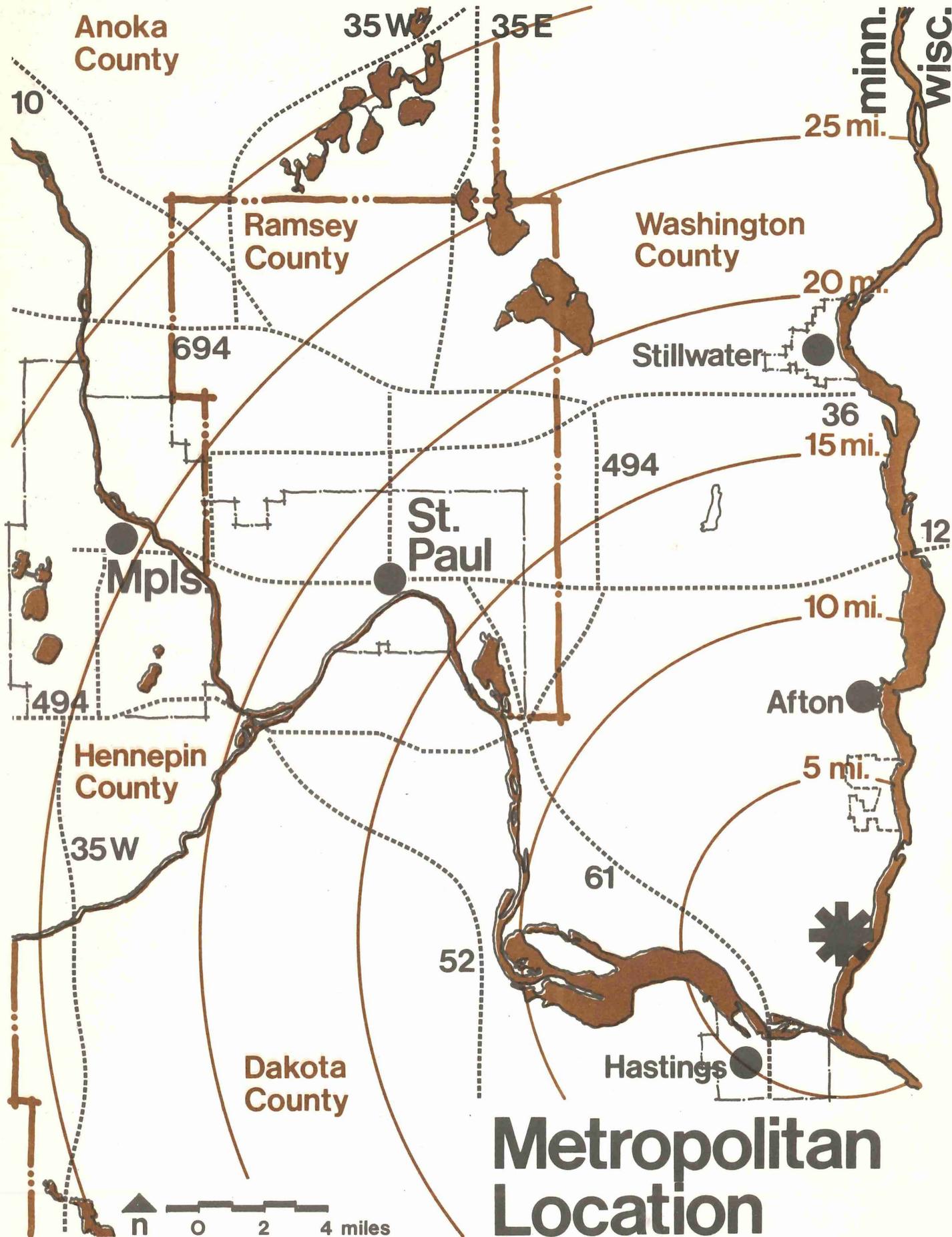
Historic sites of local significance located within the corridor include the Indian fishing site and campgrounds at the Kinnickinnic River. There are also a number of sites at Point Douglas which include the St. Paul Parish site, the Post Office site, the Point Douglas-Hastings Ferry, and the Point Douglas School which is claimed to be the first school in Minnesota.

The railroad's history in the valley began in 1881 with construction of the line between Lakeland and Lakeland Junction, a two mile segment. In 1882, construction of the St. Croix Junction (Hastings) to Bayport segment was completed. This original line was constructed by the St. Louis, Des Moines and Northern Railroad Company, and was subsequently sold to a number of intervening holding companies, and, in 1899, became the property of the Milwaukee Road.

REGIONAL RECREATIONAL FACILITIES

The Lower St. Croix River lies within a one hour drive of some 2 million Twin Cities metropolitan area residents (Map 3). Major access to the valley is provided by Interstate 94 and U.S. Highway 12. There are also other U.S., State, and County highways which provide access into the valley from the metropolitan area. Although somewhat removed from the trail corridor, Washington County 21 and U.S. Highway 10, parallel the corridor. At present the public can gain access to the corridor at Afton State Park, 87th Street, 110th Street, U.S. Highway 10, and U.S. Highway 61. While access to the St. Croix valley is excellent for so many people, there are few opportunities to actually enjoy or experience the linear quality of the St. Croix River other than by boat.

The Lower St. Croix River is predominantly utilized as a day-use facility with heavy use on the weekends by metropolitan residents. It is not known as an extended vacation area nor are there many existing facilities for extended vacations. The major existing public-use recreational facilities (Map 4) within the area of the proposed corridor include:



Metropolitan Location

MAP 3

- St. Croix National Scenic Riverway - The entire 164 miles of the St. Croix River is a recreational facility. The majority of the River (139 miles) is administered by the National Park Service which is in the process of purchasing all undeveloped river frontage and obtaining scenic easements over the remaining frontage. There will be no major Federal recreational development along this portion of the river; existing State facilities will provide the recreational opportunities. The lower 25 miles of the St. Croix is administered jointly by the States of Minnesota and Wisconsin. Primary management techniques include zoning regulations and purchase of scenic easements.
- Willow River State Park, Wisconsin - This existing 2,900 acre park developed by the State of Wisconsin lies northeast of Hudson. It provides camping, swimming, picnicking, hiking, and snowmobiling.
- Kinnickinnic State Park, Wisconsin - This planned park will emphasize day-use facilities for swimming, picnics, hiking and boating.
- Point Douglas Park - Developed by Washington County, this park is being significantly expanded to provide improved swimming and picnic facilities.
- Lake Rebecca - Under design by the U.S. Corps of Engineers, this park, located next to Lock and Dam 2, will provide day-use facilities. Picnic, swimming, fishing, and hiking facilities are currently being planned.
- Afton State Park - Currently being acquired and developed by the State of Minnesota, this natural park will provide for aesthetic, cultural, and educational functions. It is not intended to accommodate all forms or unlimited volumes of recreational use. Limited camping, picnicking, hiking, cross-country skiing, and swimming will be provided.
- Great River Road - This is a federally funded project which proposes to develop a scenic roadway and bike trail from New Orleans to Lake Itasca along the Mississippi River.



- 1 St. Croix Wild & Scenic R.
- 2 Afton State Park
- 3 Kinnickinnic State Park
- 4 Great River Road
- 5 So. Wash. Co. Pk. Reserve
- 6 Lake Rebecca Park
- 7 Point Douglas Wayside
- 8 County Bike Trails
- 9 Mississippi River
- 10 Afton Alps Ski Area
- 11 Control Data Rec. Area

Recreation Resources

MAP 4

0 .5 1 1.5 miles

Mn 55

While these are the major existing or proposed recreational facilities within the area, there are a number of other smaller, specific use oriented units. Troy Beach in Wisconsin provides swimming. There are a few municipal parks within Afton, one of which is Steamboat Park, adjacent to the St. Croix River. Afton Alps, which lies adjacent to Afton State Park provides alpine skiing opportunities. As indicated earlier, there is an existing recreational trail which runs between U.S. Highway 12 and the City of Afton.

There are two large, semi-public recreational areas located adjacent to the trail corridor. Control Data Employee Recreational Foundation, Inc. has a recreational facility for their employees which will offer, when completed, golfing, camping, picnicking, hiking, swimming, and a small craft harbor. The Carpenter estate is being developed into an environmental learning center with numerous trails and exhibits which will be open to public groups on request. There are also a number of private marinas located on the St. Croix and Mississippi Rivers within this area.

RECREATIONAL DEMAND

Estimating demand for a certain activity is difficult without an extensive specific demand study. Without such a study, demand or usage figures must rely upon general recreational use figures obtained from existing, similar, recreational facilities. Statewide use trends can be obtained from the 1974 State Comprehensive Outdoor Recreation Plan (SCORP). These figures represent statewide trends and indicate general levels of popularity regarding certain recreational activities. The participation figures within the 1974 SCORP were generated from a state-wide demand study done in 1967. Of the three trail activities proposed for the St. Croix Trail, cross-country skiing was just becoming popular in 1967 and no indication of popularity was developed other than to indicate that cross-country skiing was increasing dramatically. For hiking it was estimated that in 1975, 60% of the State's population participated in hiking, or pleasure walking, and that they will average 15-16 outings per year. It was estimated that in 1975, 50% of the State's population went bicycling. The average participation rate per capita was 11.8 outings per year for adults (20 years

and over). These figures were generated from a 1967 survey and at that time there were very few existing trails. Today these numbers are very outdated.

The DNR is currently updating the SCORP figures based upon a new survey conducted over the winter and summer of 1977-1978. These updated figures have been completed in rough form for winter use, but as of December, 1978, there is very limited information regarding summer usage.

Cross-country skiing was one activity which the DNR obtained very detailed information. There are currently approximately four million cross-country skiing occasions in the state during the winter season. Of these 4 million, about 2.5 million originate in the Metropolitan Area with 2.2 million of these actually occurring within the Metropolitan Area. Fifty-five percent of all cross-country skiing within the state occurs in the seven county Metropolitan Area.

Washington County experiences about 350,000 cross-country skiing occasions during the winter season. Of this 350,000, some 270,000 occasions are by Washington County residents. The other 80,000 occasions come from the surrounding counties with Hennepin and Dakota Counties providing the majority of these cross-country ski occasions.

Besides providing general use figures, a detailed survey was mailed to cross-country ski enthusiasts to obtain a typical user profile. The majority of skiers are young (late 20's, early 30's) and have only been skiing between 1-3 years. Seventy percent of skiers ski between 2-4 hours on a typical outing and will travel an average of 25 miles to ski. There are three ideal trail lengths--5 miles, 10 miles, and 15-20 miles. Most outings are with groups, or family, and skiers enjoy picnicking and studying nature in conjunction with their trip.

The survey also asked the user what his or her likes or dislikes were concerning trail layout. Of all cross-country skiing, 75-80% is done on trails. Most skiers, because they are relatively new, enjoy easier trails. They prefer groomed trails within wooded areas with few openings. Most skiers prefer a trail developed through wilderness-like areas, with the highest response being that the trails should take them along a river or stream. Users also wanted toilets, warming huts, and interpretive exhibits located along the trail.

For summer usage, the new demand figures have not yet been calculated. There are, however, a few general trend figures available. Responses from the metropolitan area indicated that the greatest need is to provide new, additional bike trails and that the average distance people would be willing to travel to a biking facility would be 15 miles. Hiking enthusiasts indicated that they would be willing to travel about 50 miles to a hiking trail.

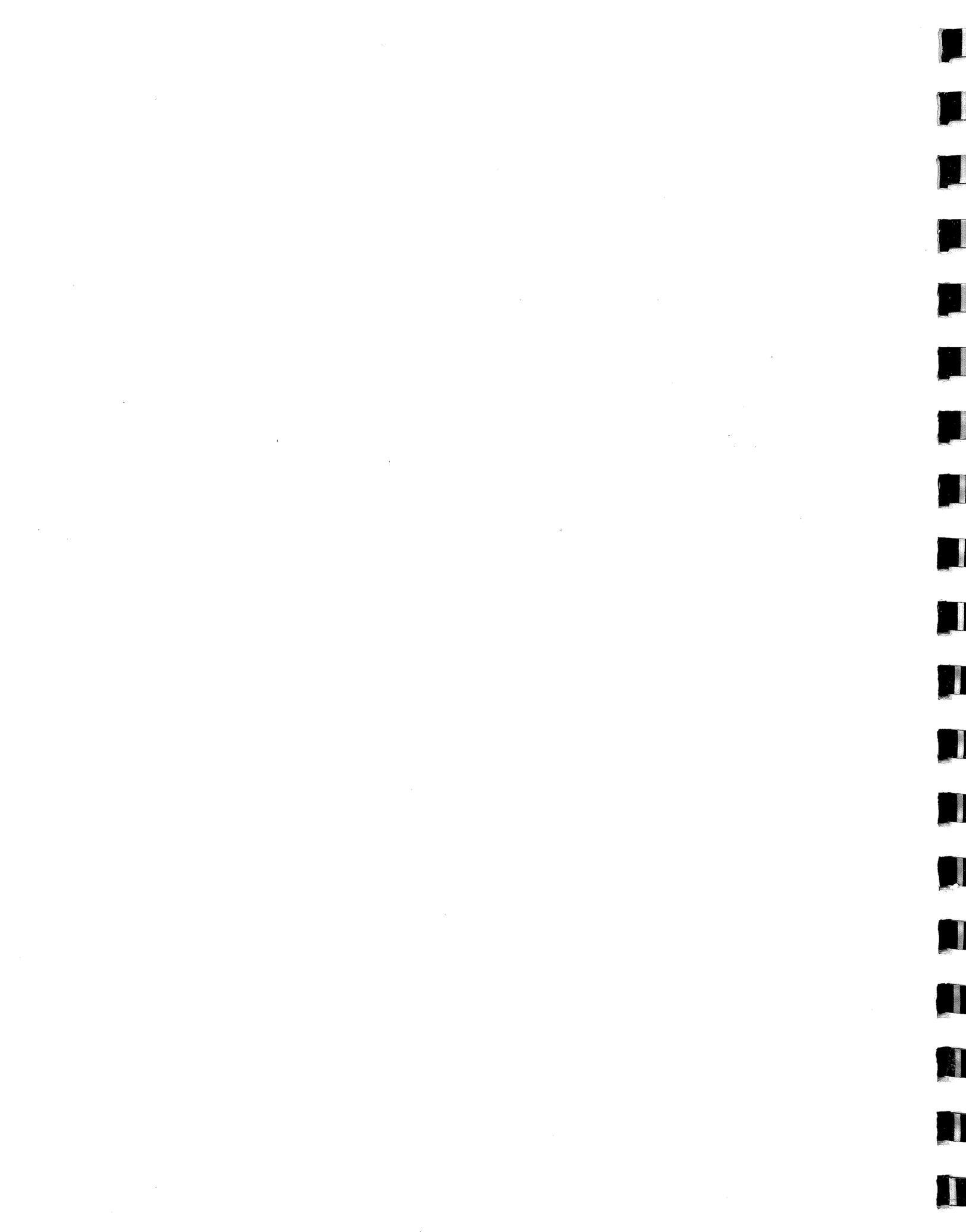
As stated earlier, without specific site demand studies there is a need to rely upon usage figures from existing trail facilities. The Elroy-Sparta Trail in Wisconsin had approximately 43,000 users last year. It is predominantly a bike trail which is 32 miles in length or 64 miles round trip. It is not connected to other trails so that users must drive to the trail. Trails within Minnesota are relatively new and therefore have limited usage figures. The Douglas Trail, which begins in Rochester and runs twelve miles north to Pine Island, had 308 users over a survey period of four days. There were 165 bikers, 26 hikers, 116 joggers, and one horsebackrider.

These figures indicate that there is a need to accommodate the trail user and that existing facilities are being used. Actual usage will be influenced by location, access, quality of the trail experience, and publicity.

SUMMARY

This trail corridor could offer a wide variety of rewarding environmental experiences. There are numerous interpretive opportunities to educate and enhance the user's awareness of his surroundings. There are opportunities to portray the history of the area. With the variety of vegetation, one's visual experience would be ever-changing throughout the seasons. This corridor lies in close proximity and has good access to the population of a major metropolitan area. During the original inventory and evaluation period for the proposed nationwide system of wild rivers in the early 1960's, the study team recommended that—"The St. Croix River (below Taylors Falls) is a recreational resource of outstanding quality, even

though development precludes classifying it as a wild river. Appropriate measures should be taken to assure perpetuation of this portion of the stream as a recreation resource of high quality." Today the Lower St. Croix River is an important component of the National Wild and Scenic River System. There are a number of public access points to the river but there are no existing opportunities to experience the linear qualities of this National Scenic Riverway, other than by boat. The Lower St. Croix Management Commission has indicated--"that this corridor is probably the most feasible for trail development of any railroad right-of-way within the entire 52-mile reach of the Riverway."



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RESIDENTS' CONCERNS

There are numerous components which form the data base from which the planning process and, ultimately, the final recommendations evolve. One of these components is composed of the social factors. While not necessarily more important than any of the other influencing factors, they do require a more independent analysis.

Early in 1978 when local property owners were informed that the DNR was interested in developing a St. Croix Trail, those opposed to any trail development formed Scenic Resources, Inc. Scenic Resources, Inc. is composed of local property owners along the entire 22.5 miles of abandoned trackage. They have submitted a formal petition to the DNR stating their specific reasons for opposition. There have also been many public meetings regarding possible development of the St. Croix Trail where more informal opposition has been expressed. At the first public meeting with the residents, the planning team asked those in attendance to graphically portray their concerns on air photos of the twelve mile corridor under study. These comments and maps are included within the Appendix of this management plan. These comments were obtained at only the first meeting and not everyone wished to partake in this exercise.

At present, according to the adjoining residents, this area has many problems with theft, vandalism, invasions of property or trespass, and general nuisance. With no local law enforcement agency, they must rely upon the Washington County Sheriff for protection. Most of the private homes are remotely located off County Road 21, in a sparsely populated area. The shoreline along the trail corridor is heavily wooded and rocky with the majority of homes located some 100 feet above the corridor along the bluff line. In these areas, some of the property owners have stairs or mechanical lifts which go down the bluff to the railroad and then continue down to the river. At present, there are twelve sets of stairs, two of which appear to be unused and two which have floating docks, and two mechanical lifts located along the twelve-mile corridor. General nuisance, theft, and trespass has occurred as a result of people coming off the river and using these stairs and/or lifts.

In the area near 110th Street, there are a number of homes which relate to the river in a way more typical of lakeshore environment. They are located very close to the river upon a level, sandy terrace. The trail corridor is located slightly higher and behind these homes. These homes have experienced the vandalism problem more in the winter, as most of these homes are seasonal. This area does experience other problems because of the attractive beach on which they are located. Due to the rocky shoreline of the Lower St. Croix there are very few opportunities for boaters to beach their boats. 110th street also provides direct public access down to the river in this area.

Specific areas of concern which have been expressed repeatedly in meetings and letters are as follows:

- Increased theft and vandalism

Some area residents feel that with an already existing problem of vandalism, the potential for increased problems will occur with development of the St. Croix Trail. By opening this area to the public, they feel that greater numbers of people will have access to the area, which may increase their problems of theft and vandalism. Reference has been made to one case along the Luce Line Trail, west of Minneapolis, where one residence was vandalized and the trail utilized as an escape route by a four-wheel drive vehicle.

- Nuisance

Some residents feel that additional use of the river corridor, by development of the trail, will increase negligent activities by some users resulting in forest fires, litter, trespass, noise, and other associated problems. Many of these existing problems are water-related, in that boaters come ashore, build bonfires, hold noisy parties and leave their garbage behind on the shore. Residents along the river also indicate they experience excessive noise from the heavy boating activities upon the river, especially the newer jet boats.

- Depreciation

Some abutting landowners feel that by converting the railroad right-of-way to trail purposes their property values will be depreciated.

A large portion of these present problems originate from boaters who come ashore along the river. It is difficult to patrol the shorelines and waterfront from the river with limited craft. Since the shoreline is difficult to be accessed and seen from the bluff line, response to these residents' complaints by patrol car is also very difficult.

These existing problems and the residents' fear of added problems combine to form an overall objection to the idea of developing a public corridor through their private environment. Most property owners along the St. Croix River portion of the trail own land on both sides of the railroad right-of-way. Although the trail would not create a physical barrier between their home and the shoreline, they feel there would be a perceived or psychological barrier created, along with its potential problems of vandalism, nuisance, and trespass.

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THE PLAN

The plan proposal contained within this corridor study has evolved from a planning process which included an extensive public involvement program. Input has been obtained from area residents and potential users. In addition, a citizens advisory task force was formed to work with the planning team throughout the planning process. This task force included six members who were adjoining property owners, six members who were potential users, and three members from local governmental agencies or commissions. None of these members officially represented any group or special interest, but acted as concerned citizens in developing a trail concept which addressed their needs and/or concerns. The task force has met throughout the planning process and has toured the corridor both by boat and on foot. The development plan proposed represents the consensus of the task force and addresses the concerns previously expressed.

The plan proposal is for development of a trail of wild and scenic character. The trail would be developed and managed in a manner consistent with the objectives of the Lower St. Croix National Scenic Riverway. Development and management would place primary importance on maintaining and enhancing the aesthetic, scenic, historic, fish and wildlife, and geologic features. All trail development would place primary emphasis on protection of the river environment. To maintain this trail image, there would be limited access to the trail, and the treadway would be constructed of a natural material such as limestone or trap-rock screenings. Treadway location would follow the old railroad bed to minimize any grading or vegetation alterations. All support facilities would be designed with natural materials and located in accordance with Riverway regulations. All vegetative thinning would be in accordance with Riverway regulations, and additional plant material would be native types. Trail rules and regulations would be strengthened to insure a wild and scenic image.

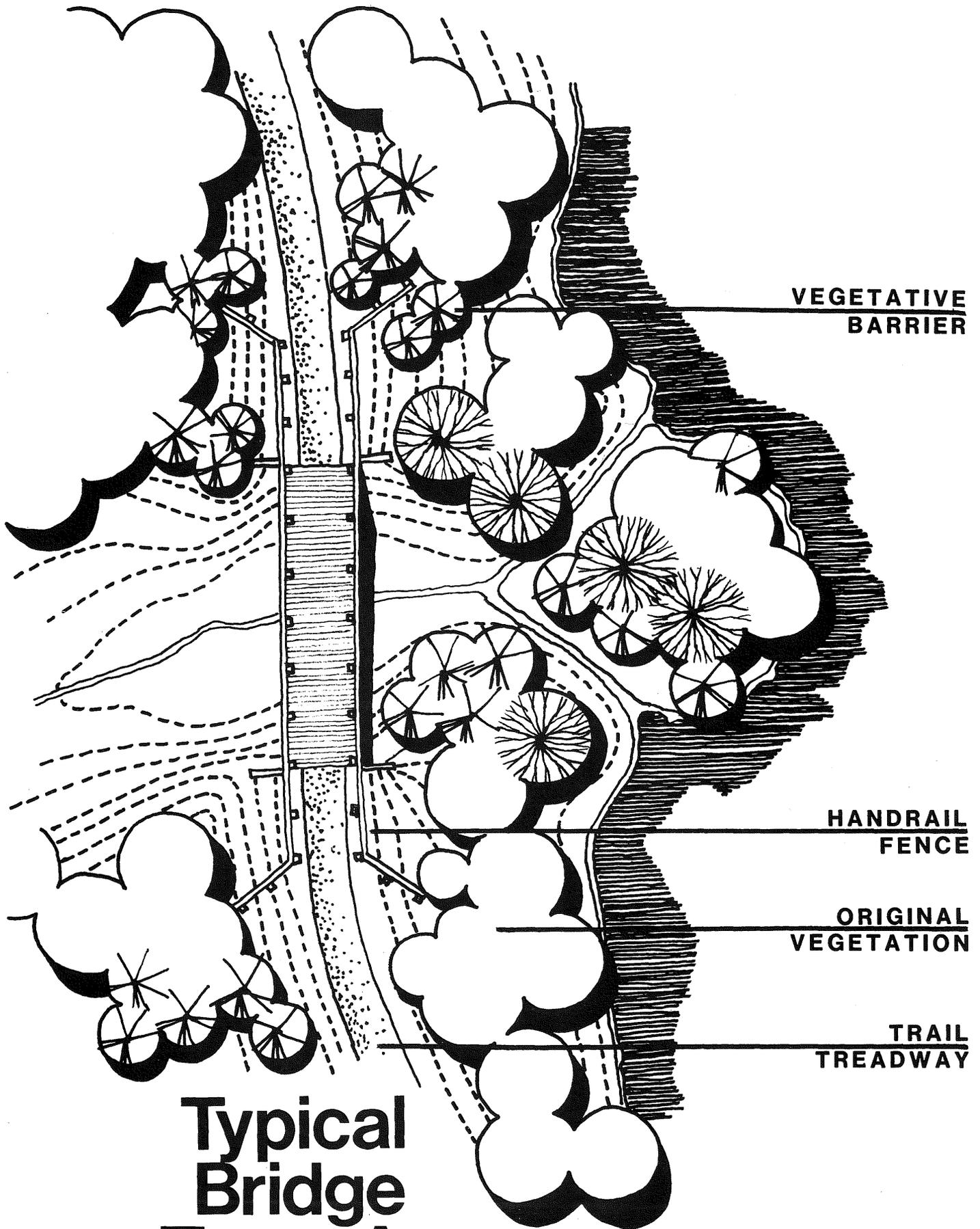
Primary use of the trail would be for biking, with secondary use for hiking and cross-country skiing. Motorized vehicles and horses would not be allowed on the trail. Major access onto the trail would be through Afton State Park, with minor access points provided at Hastings (Highway 61) and Point Douglas. These access points would be designed such that emergency vehicles could gain access onto the trail

through a locking or "crash" gate. Should the trail be implemented, contact with Control Data Employee Recreational Foundation, Inc. would take place to determine the feasibility of providing an emergency access onto the trail through their property.

Support facilities such as parking, water, toilets, and trail information would be provided at these public access points. Support facilities at Afton and Point Douglas would be programmed into existing development plans. Currently, Afton and Point Douglas development plans would offer the trail user the opportunity for swimming. To reduce the possibility of trespass upon private property, one additional trail wayside should be provided. The Truax property, at 110th Street, would be ideal and could offer an informal swimming area. The area would be buoyed to eliminate possible conflict with boaters.

Mini-waysides would be provided along the corridor at some of the sixteen existing bridges. Some of the best views of the river and its valley are at these existing trestles or bridges. Some of these bridges would be expanded to create viewing platforms and benches to provide rest opportunities. Existing vegetation along the corridor is presently being trimmed by the daily train traffic. Once a trail is developed, this vegetation would be left to develop a canopy over the trail, shading it from the summer sun. Existing vegetation would also be augmented to provide improved screening to any visible private residences.

Interpretive programs would be developed along the corridor to provide learning experiences for the trail user. Trained ecologists and archaeologists should examine the entire corridor to determine the most feasible locations for site specific interpretive programs. Development of the trail, as proposed, would provide the user with adequate rest areas, viewing opportunities, swimming, and interpretive programs such, that the desire to trespass onto private property would be eliminated or, at least, greatly reduced. The 1/2 mile corridor segment, which runs north of Afton State Park to River Road, would not be developed. This short corridor segment would remain undeveloped until a decision is made as to the feasibility of linking to the existing grant-in-aid trail located north of the City of Afton.



**VEGETATIVE
BARRIER**

**HANDRAIL
FENCE**

**ORIGINAL
VEGETATION**

**TRAIL
TREADWAY**

**Typical
Bridge
Type A**

**TRAIL
TREADWAY**

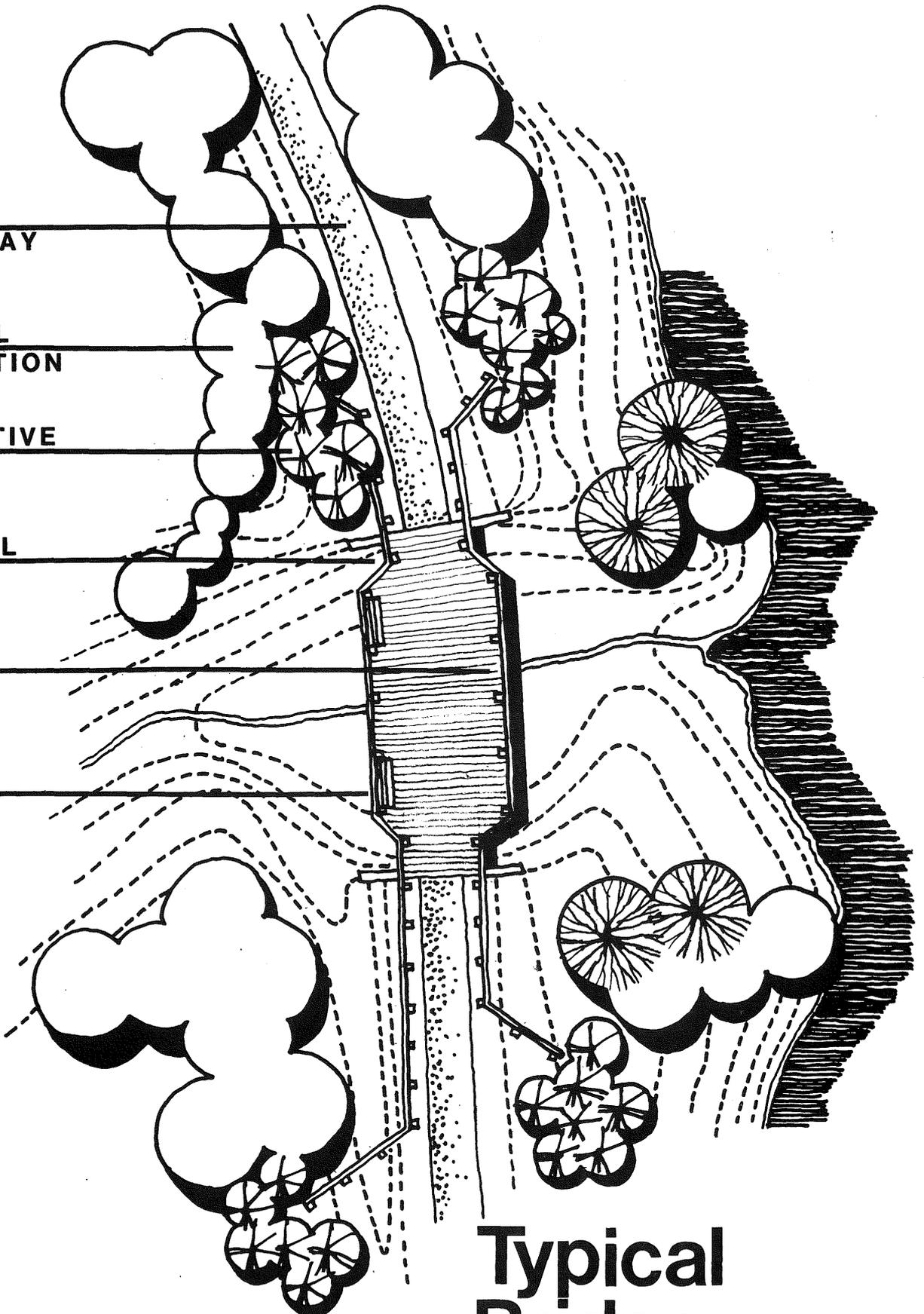
**ORIGINAL
VEGETATION**

**VEGETATIVE
BARRIER**

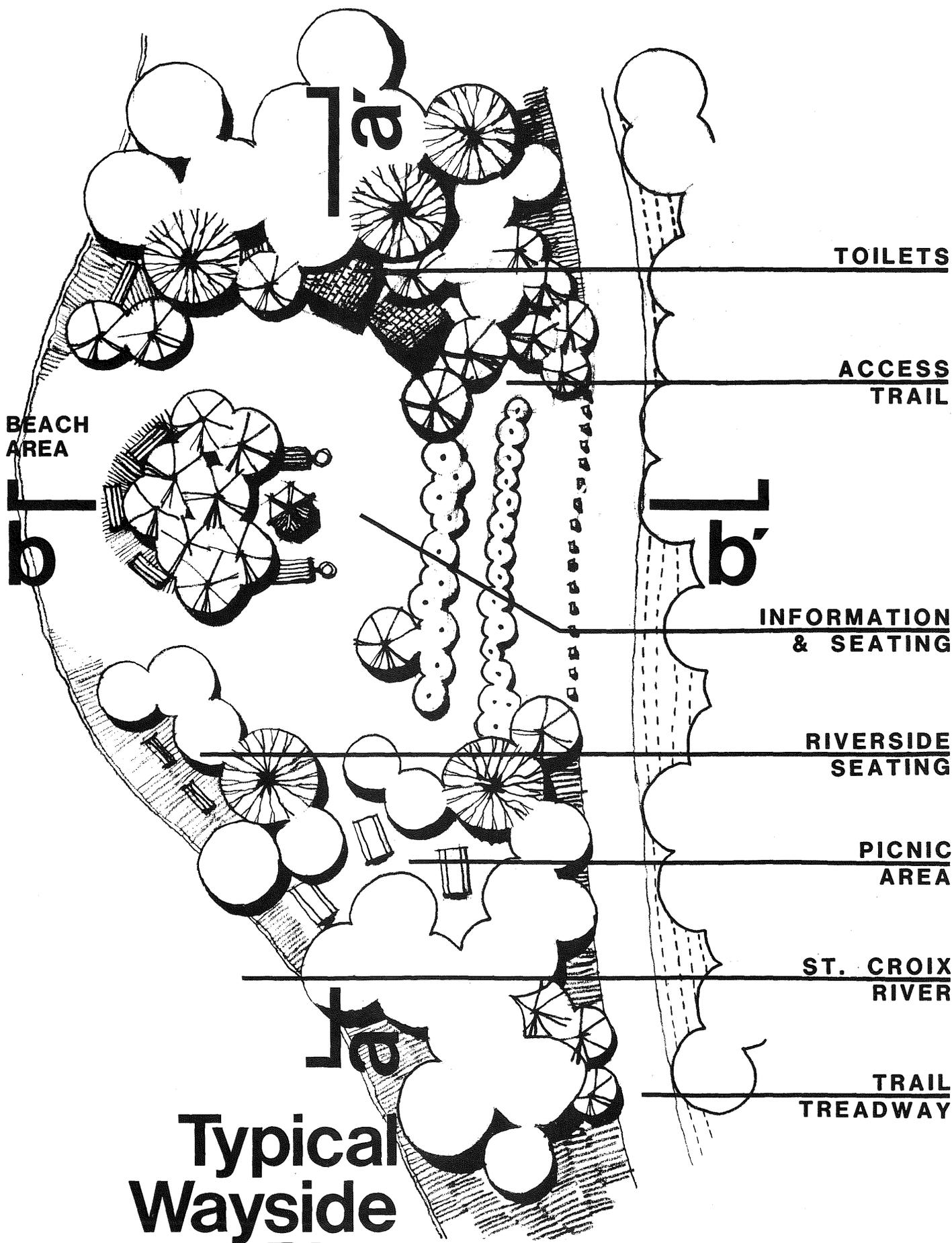
**HANDRAIL
FENCE**

**VIEWING
AREA**

**BENCH
SEATING**



**Typical
Bridge
Type B**



TOILETS

ACCESS TRAIL

BEACH AREA

INFORMATION & SEATING

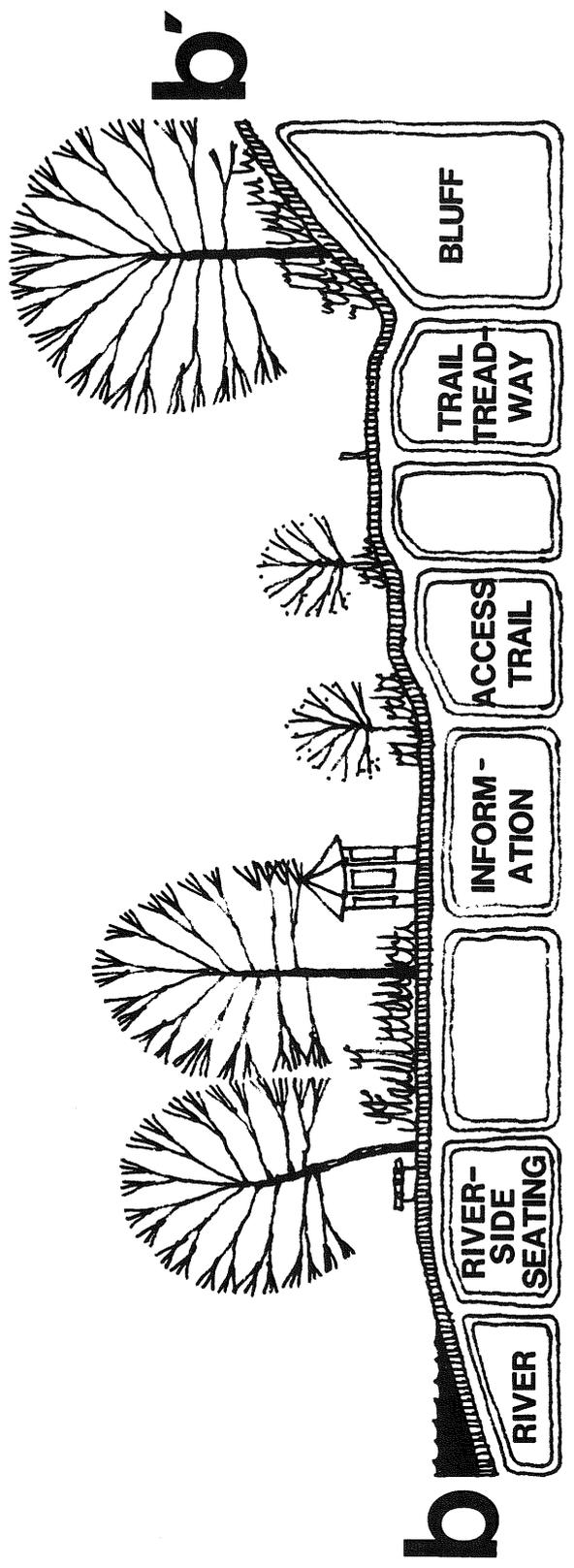
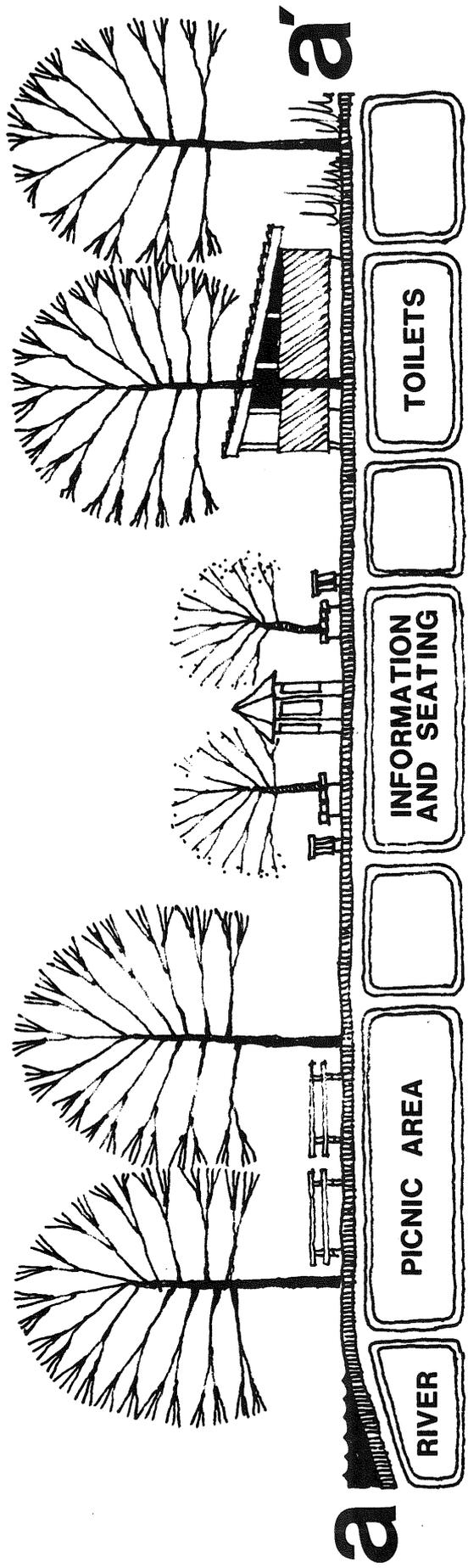
RIVERSIDE SEATING

PICNIC AREA

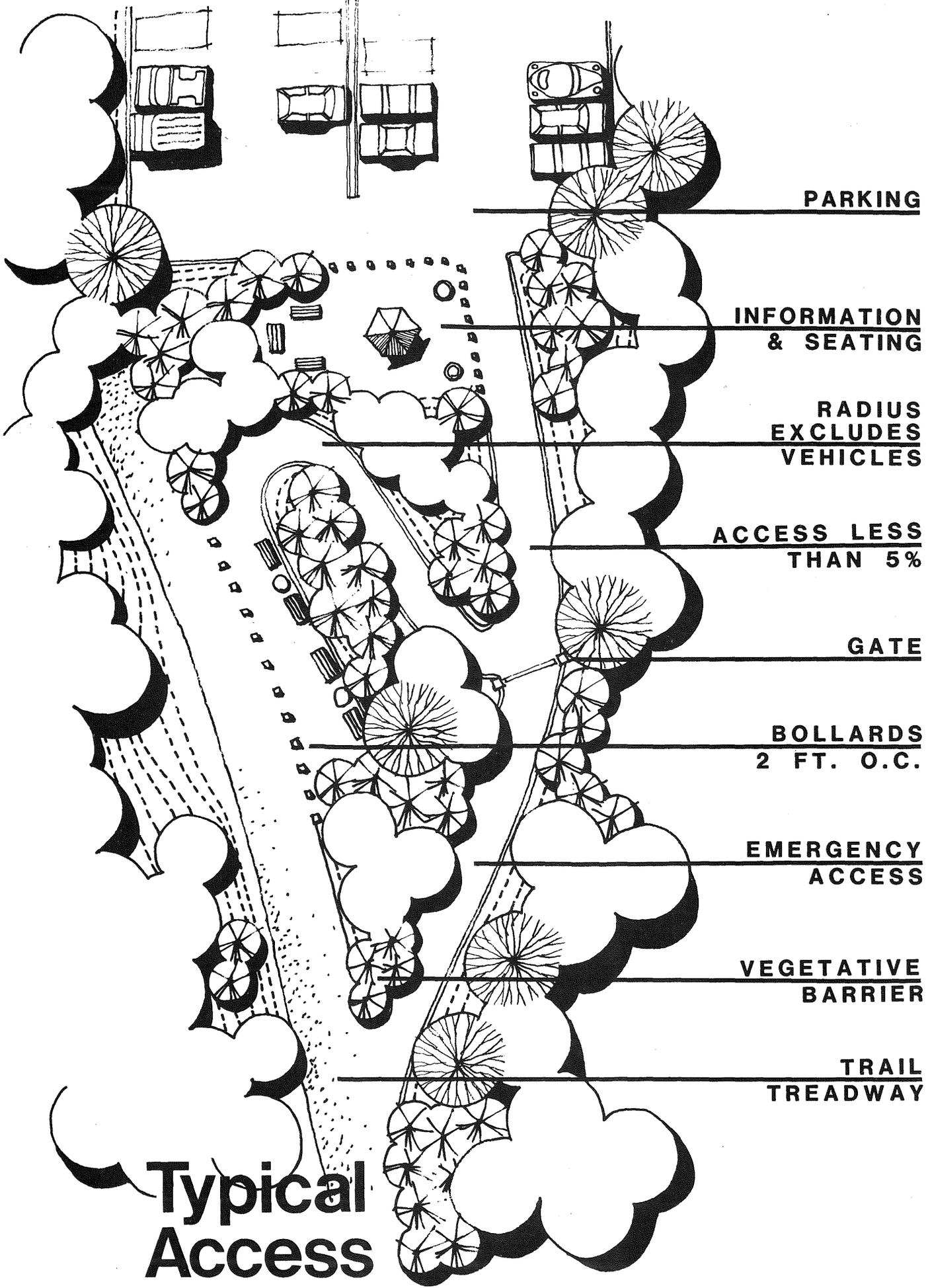
ST. CROIX RIVER

TRAIL TREADWAY

Typical Wayside Plan



**Rest Area
Cross
Sections**



PARKING

INFORMATION
& SEATING

RADIUS
EXCLUDES
VEHICLES

ACCESS LESS
THAN 5%

GATE

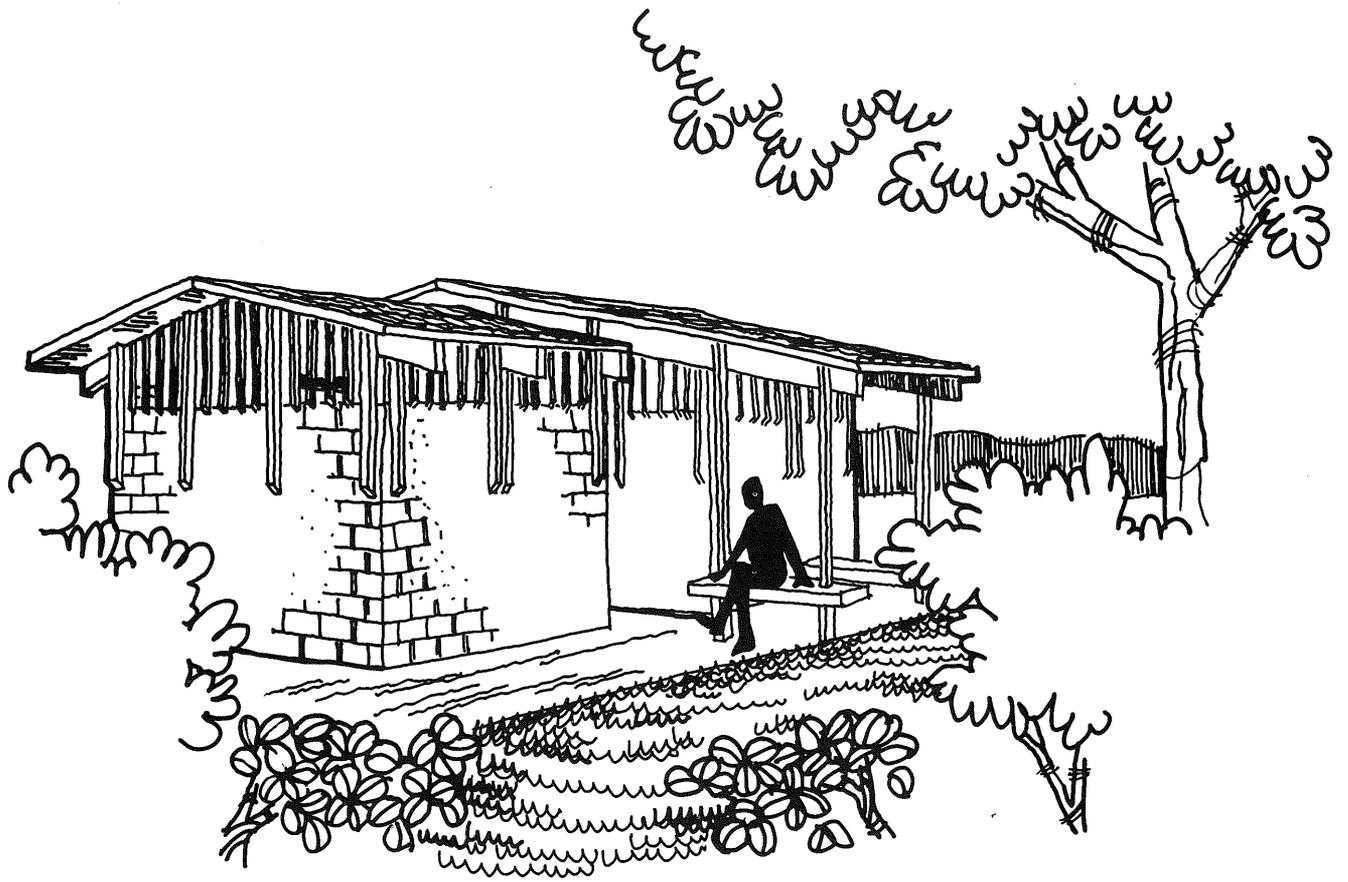
BOLLARDS
2 FT. O.C.

EMERGENCY
ACCESS

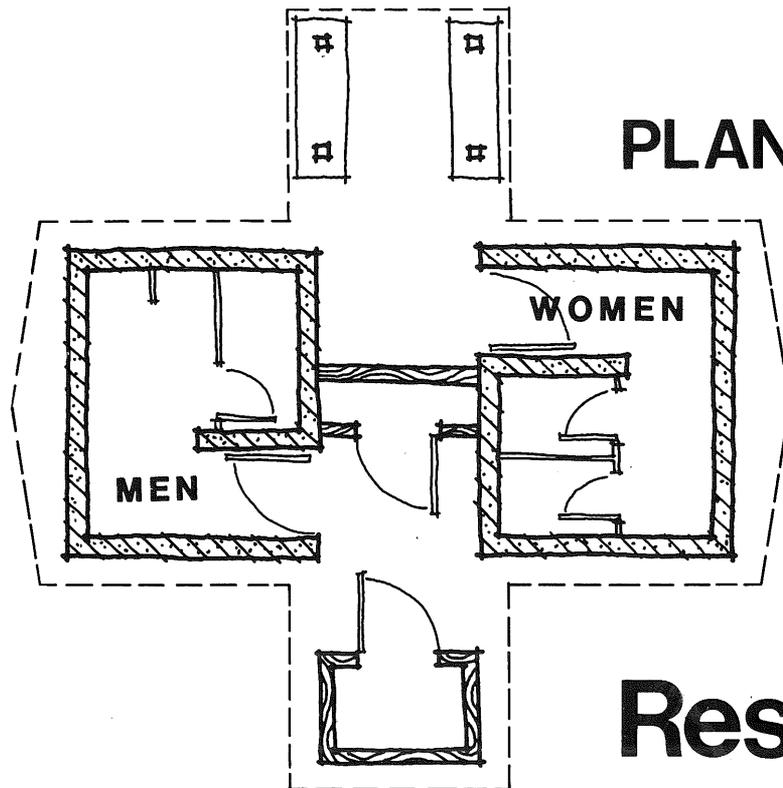
VEGETATIVE
BARRIER

TRAIL
TREADWAY

**Typical
Access**

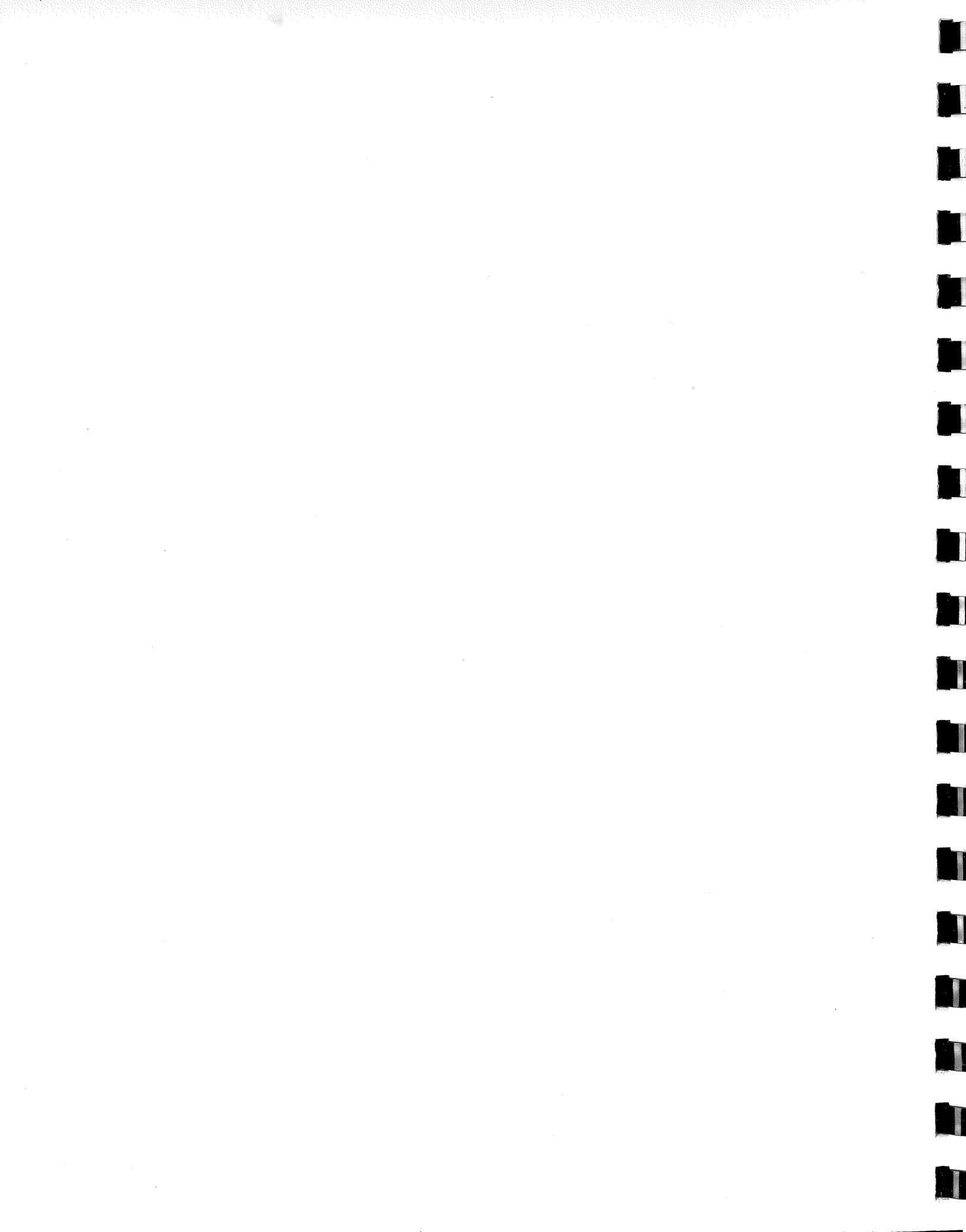


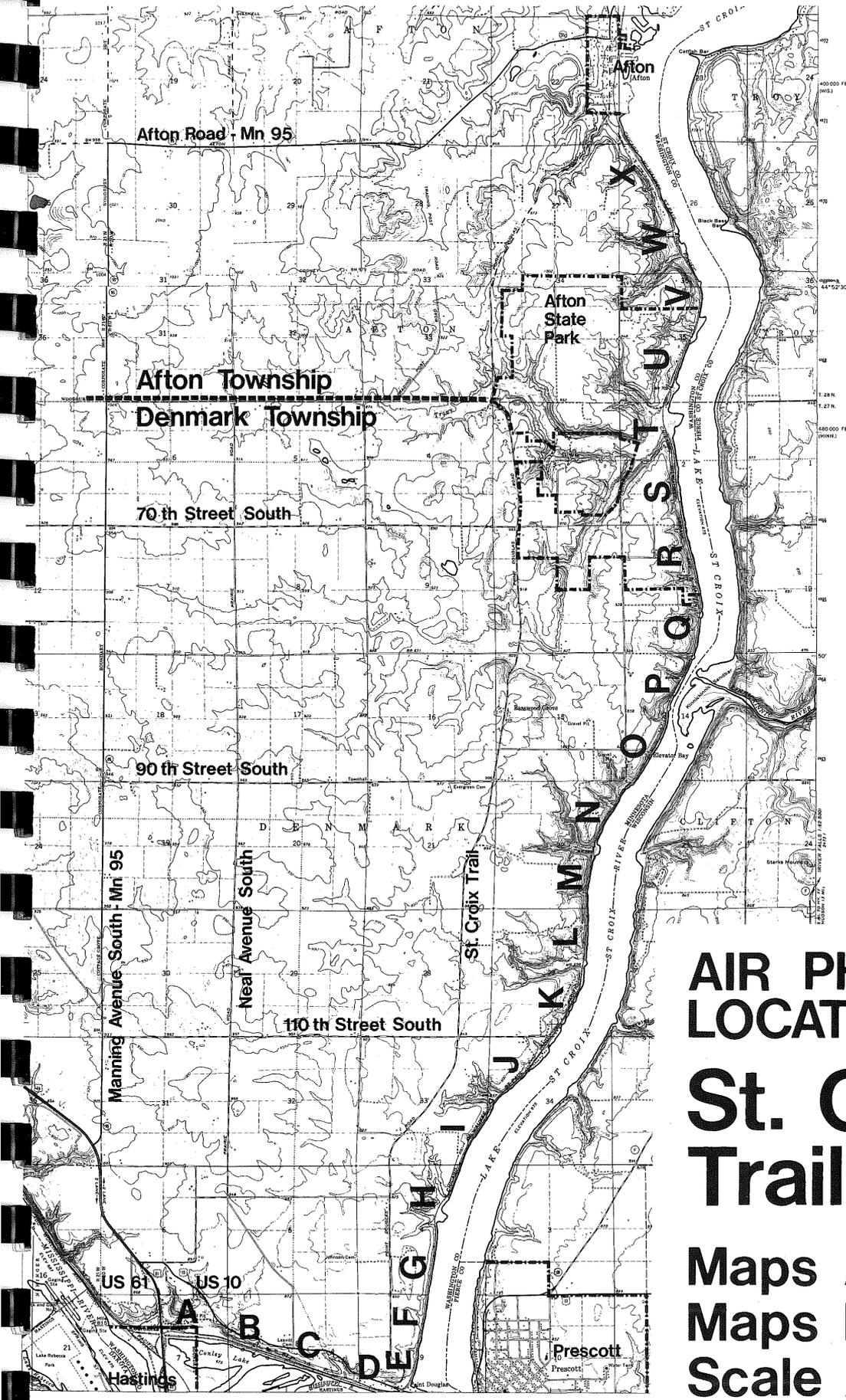
PERSPECTIVE



PLAN

Restrooms





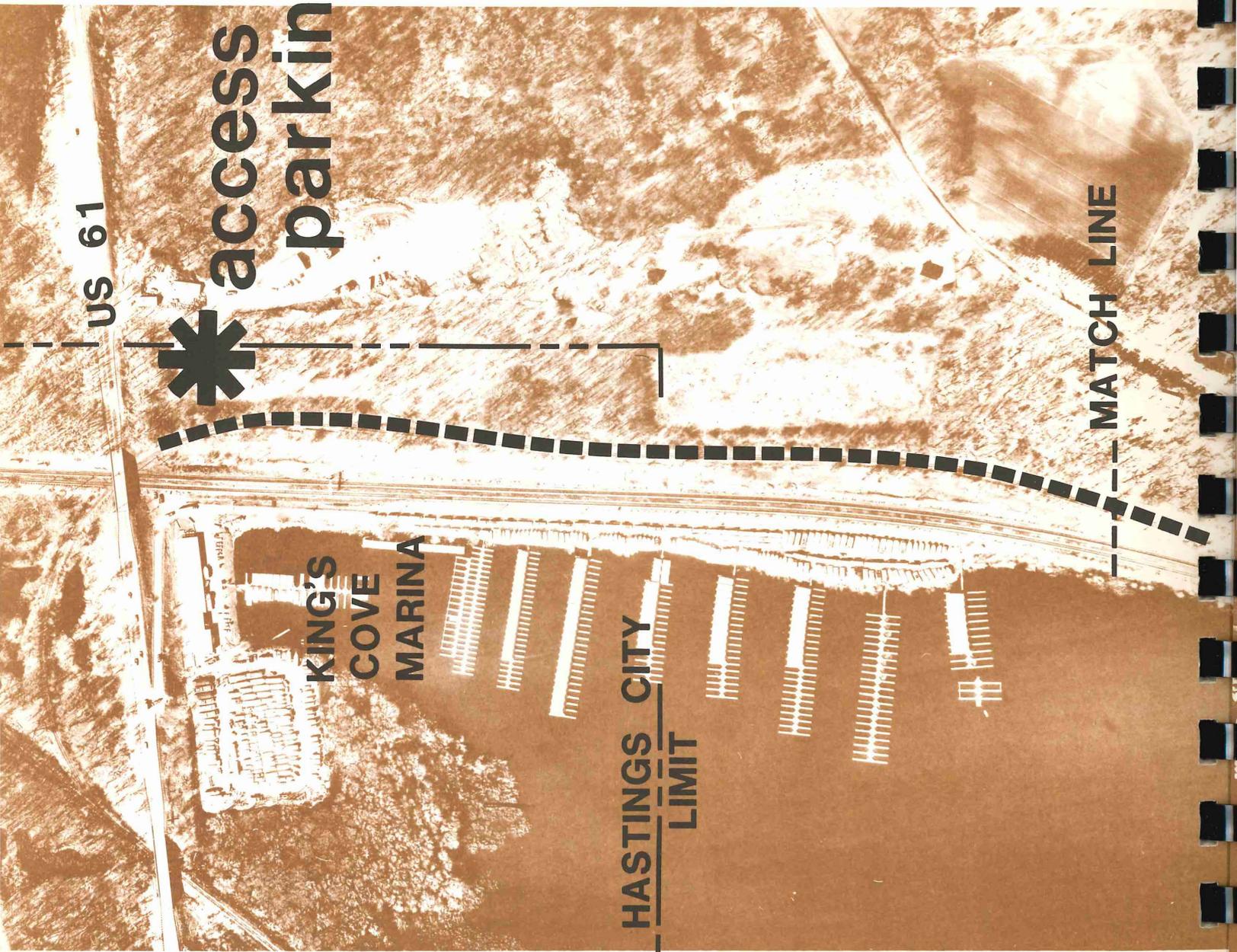
**AIR PHOTO
LOCATION KEY**

**St. Croix
Trail Plan**

Maps A-D: North ▲

Maps E-X: North ►

Scale A-X: 1"=400'



*** access and parking**

US 61

KING'S
COVE
MARINA

HASTINGS CITY
LIMIT

MATCH LINE

LEGEND

- Trail Development
- Trail Development In Afton State Park
- Undeveloped Corridor
- Access Controls
- Milepost MP

MAP A

MATCH LINE

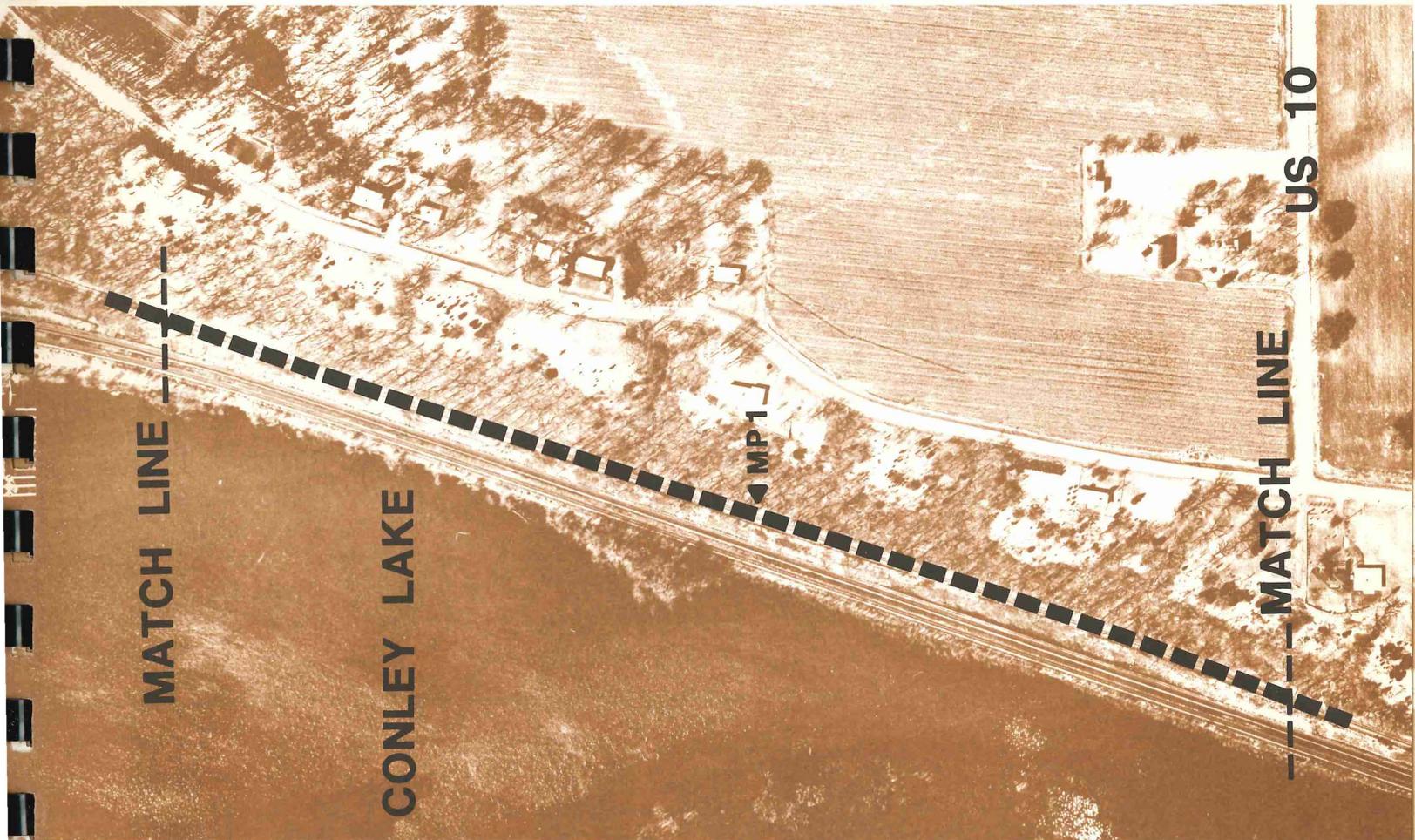
CONLEY LAKE

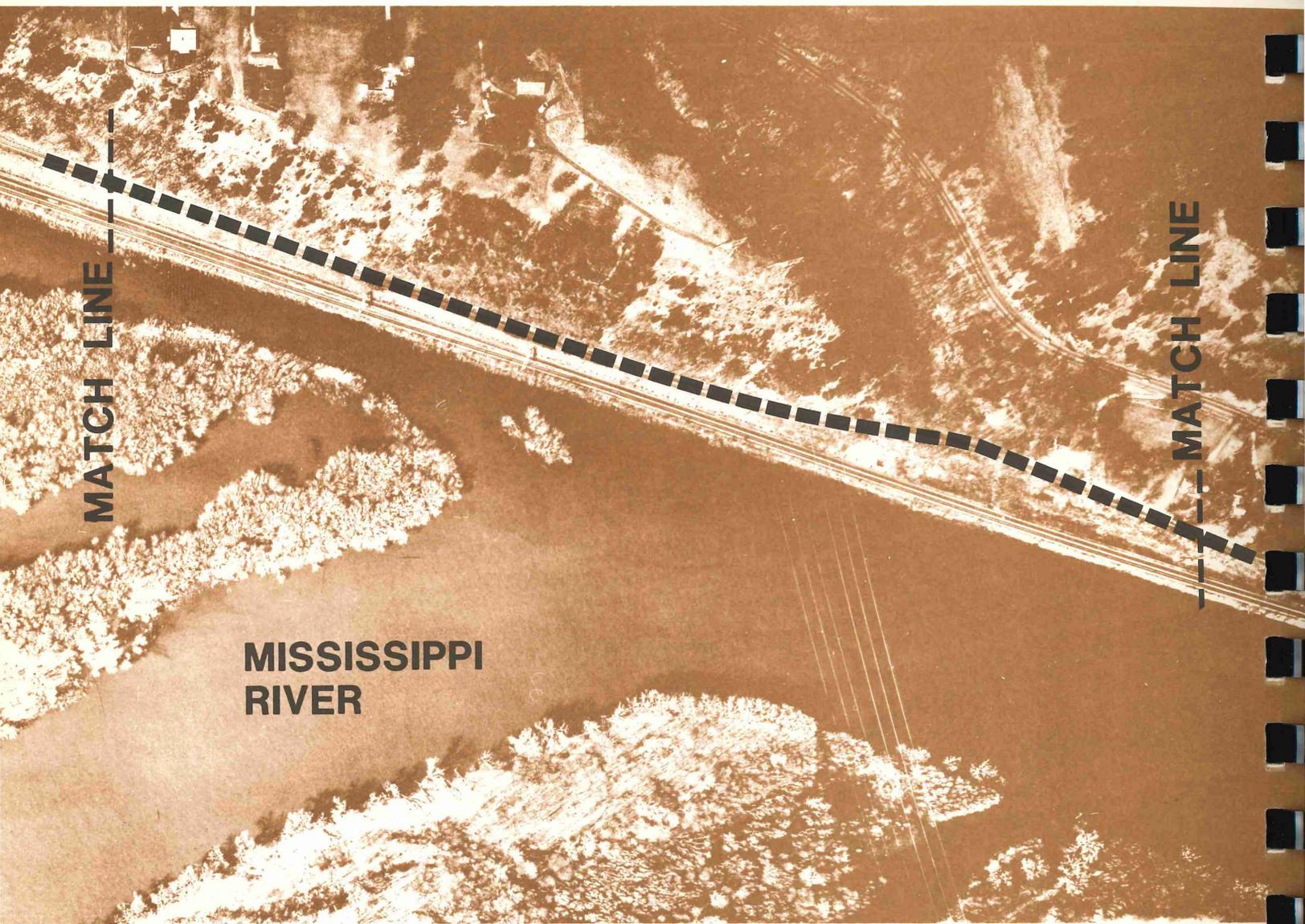
MP 1

MATCH LINE

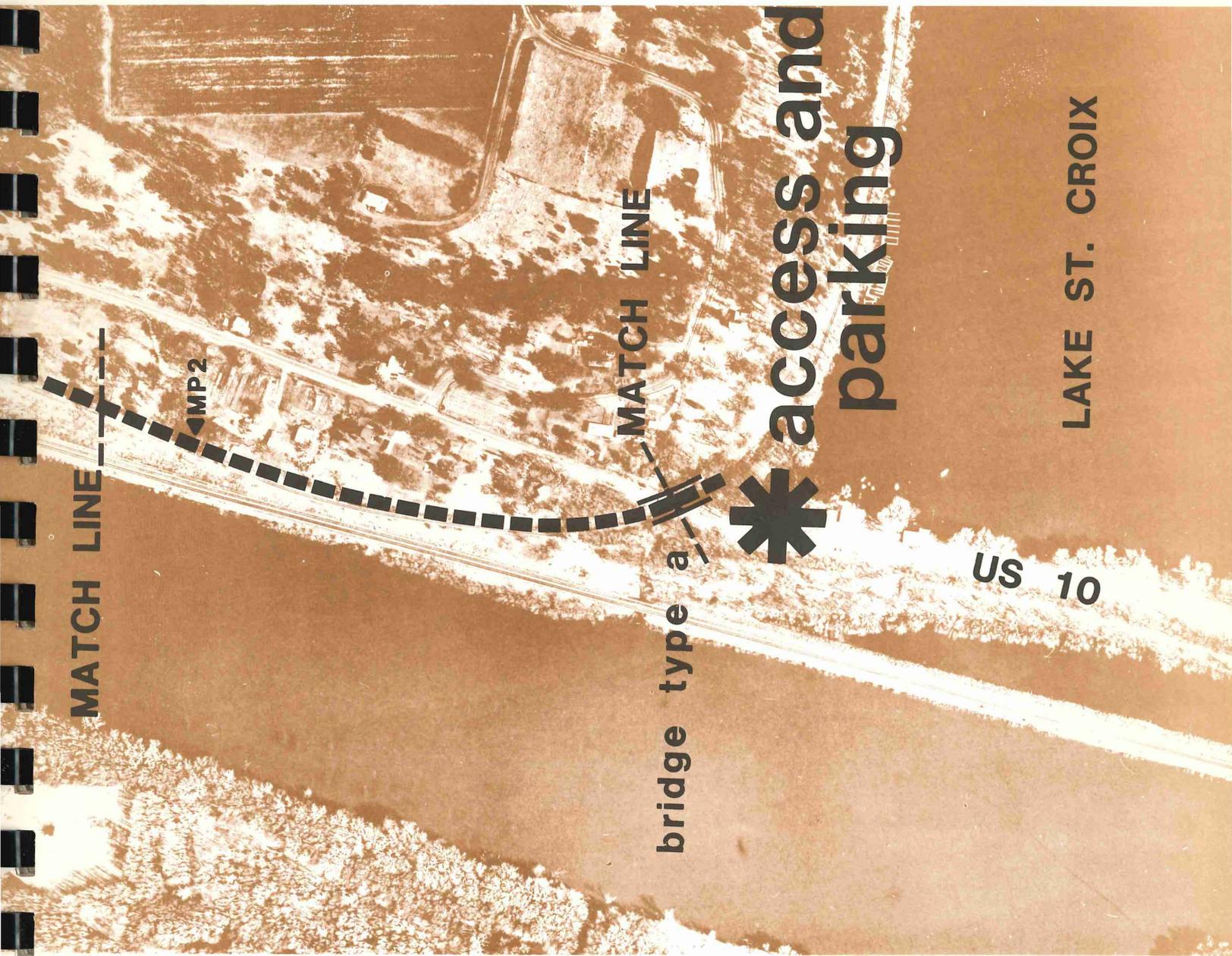
US 10

MAP B





MAP C



MATCH LINE

MP 2

MATCH LINE

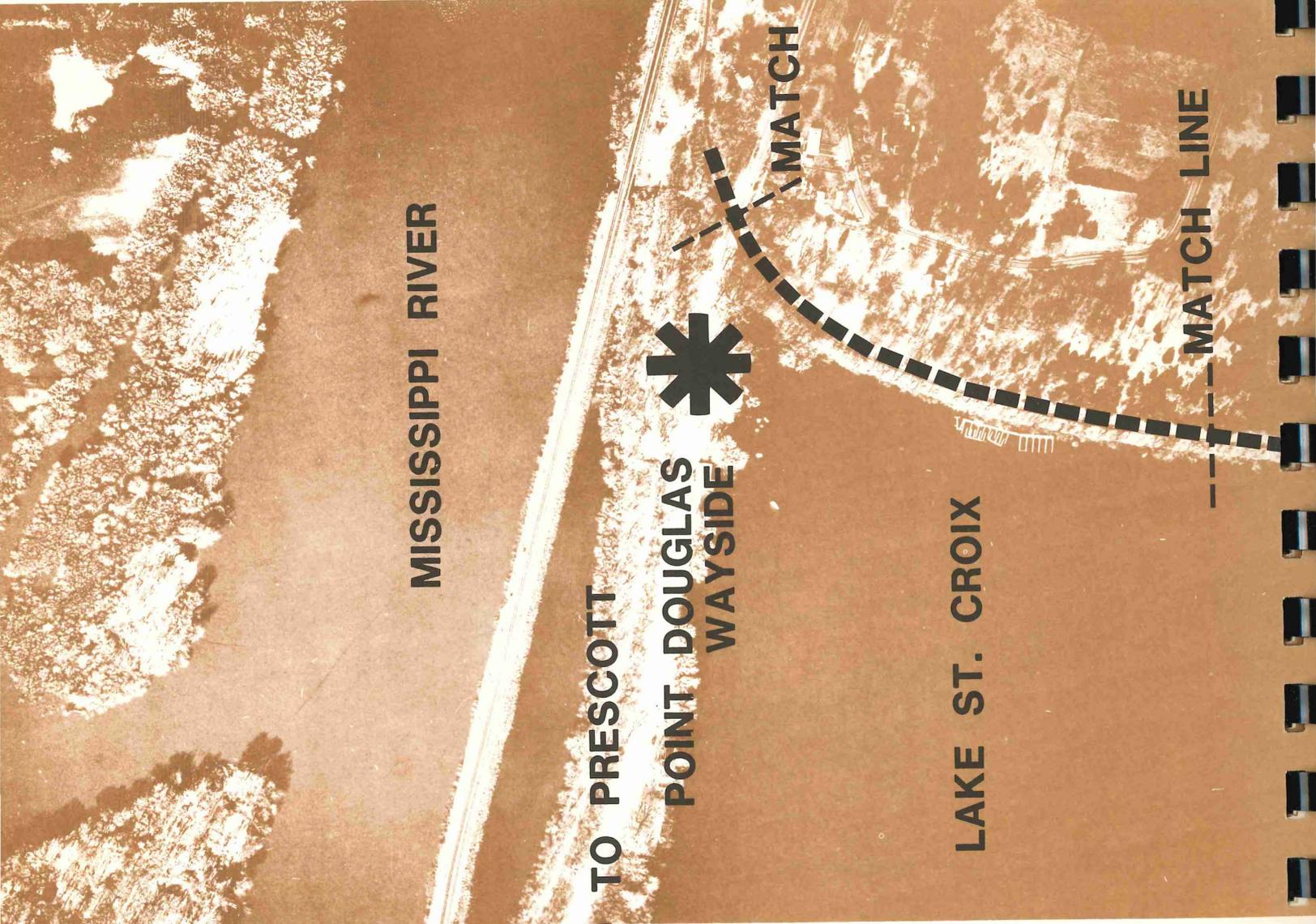
bridge type a

* access and parking

US 10

LAKE ST. CROIX

MAP E



MISSISSIPPI RIVER

US 10 TO PRESCOTT

POINT DOUGLAS
WAYSIDE

LAKE ST. CROIX

MATCH LINE

MATCH LINE

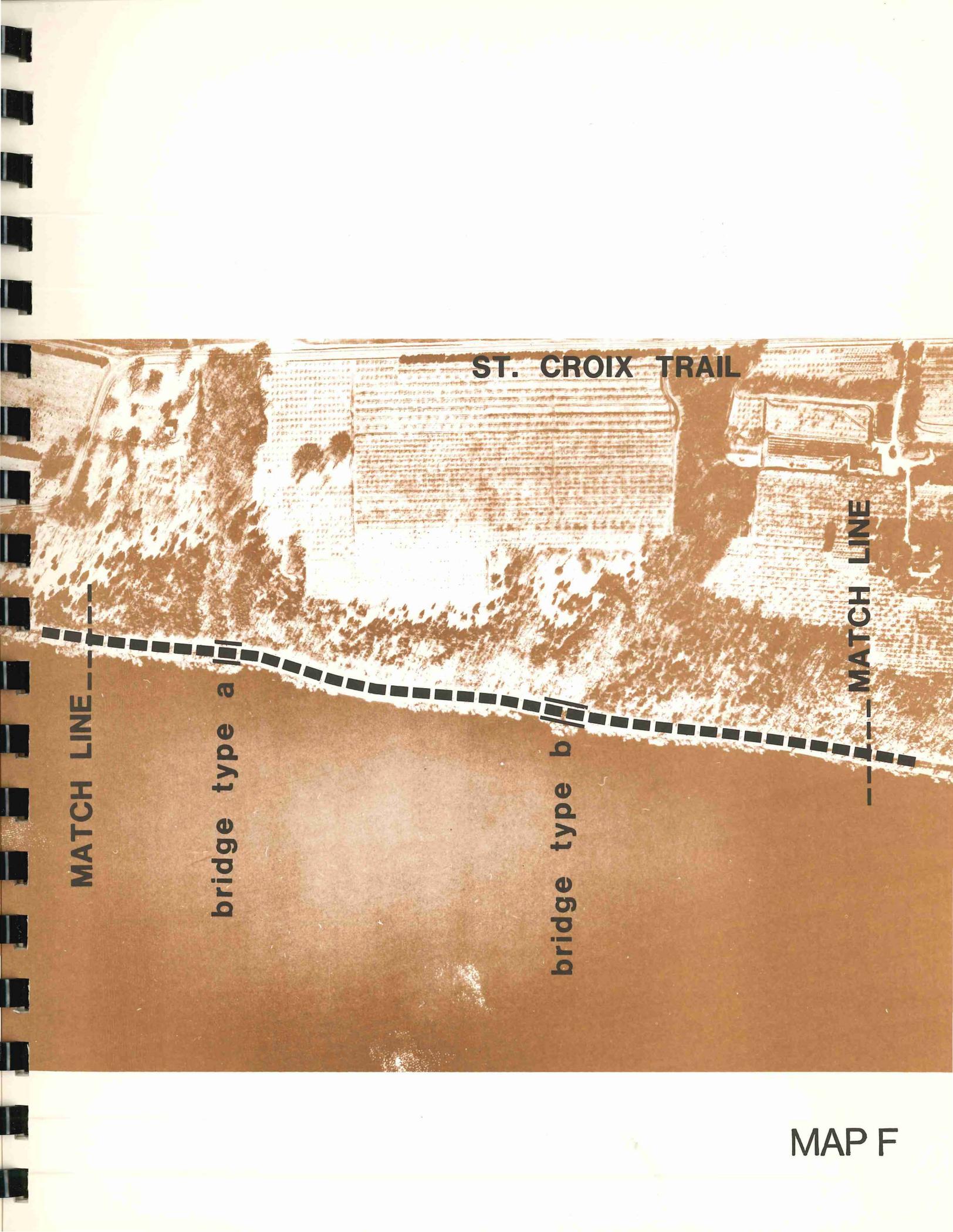
ST. CROIX TRAIL

MATCH LINE

bridge type a

bridge type b

MATCH LINE



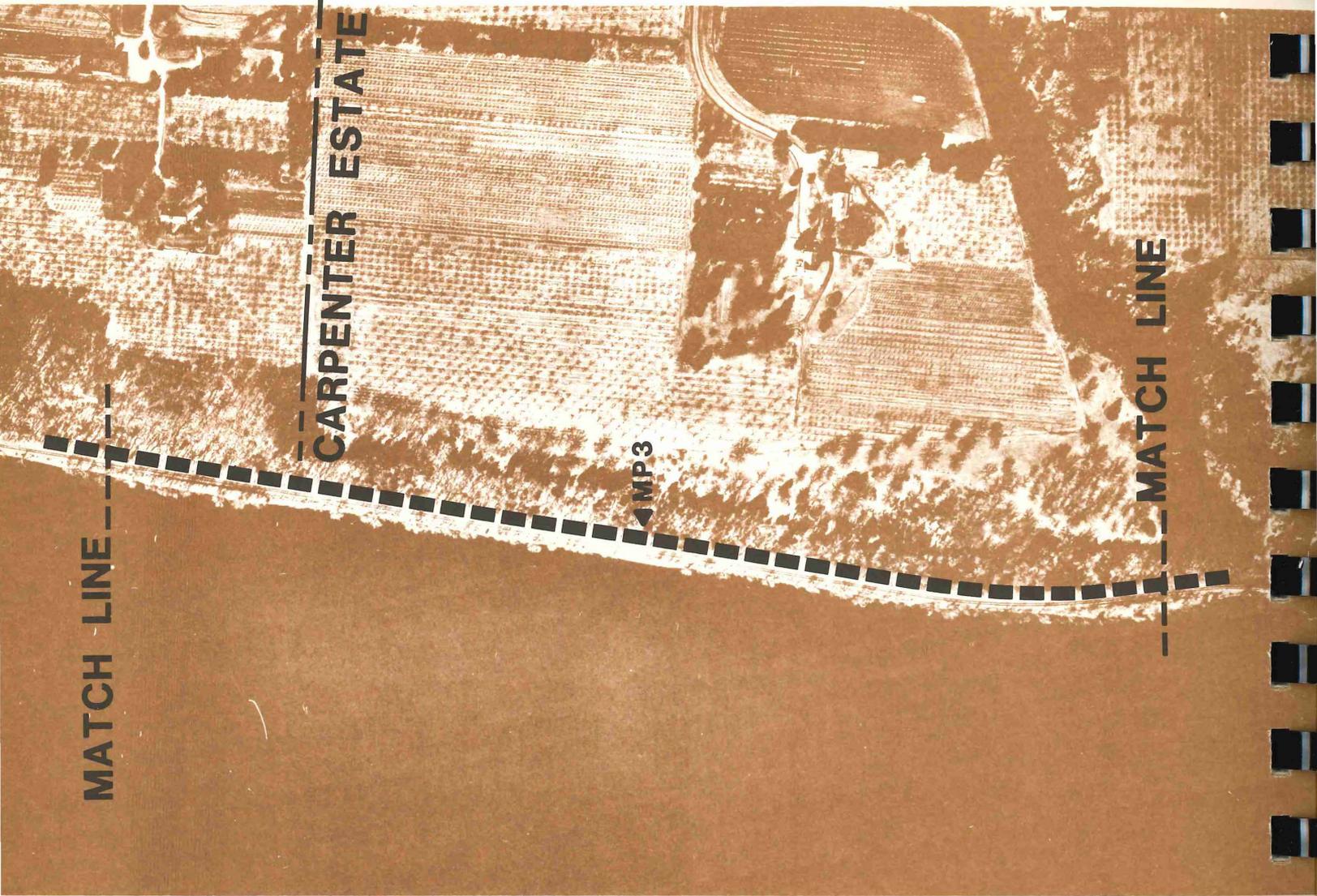
MAP G

MATCH LINE

CARPENTER ESTATE

MP3

MATCH LINE



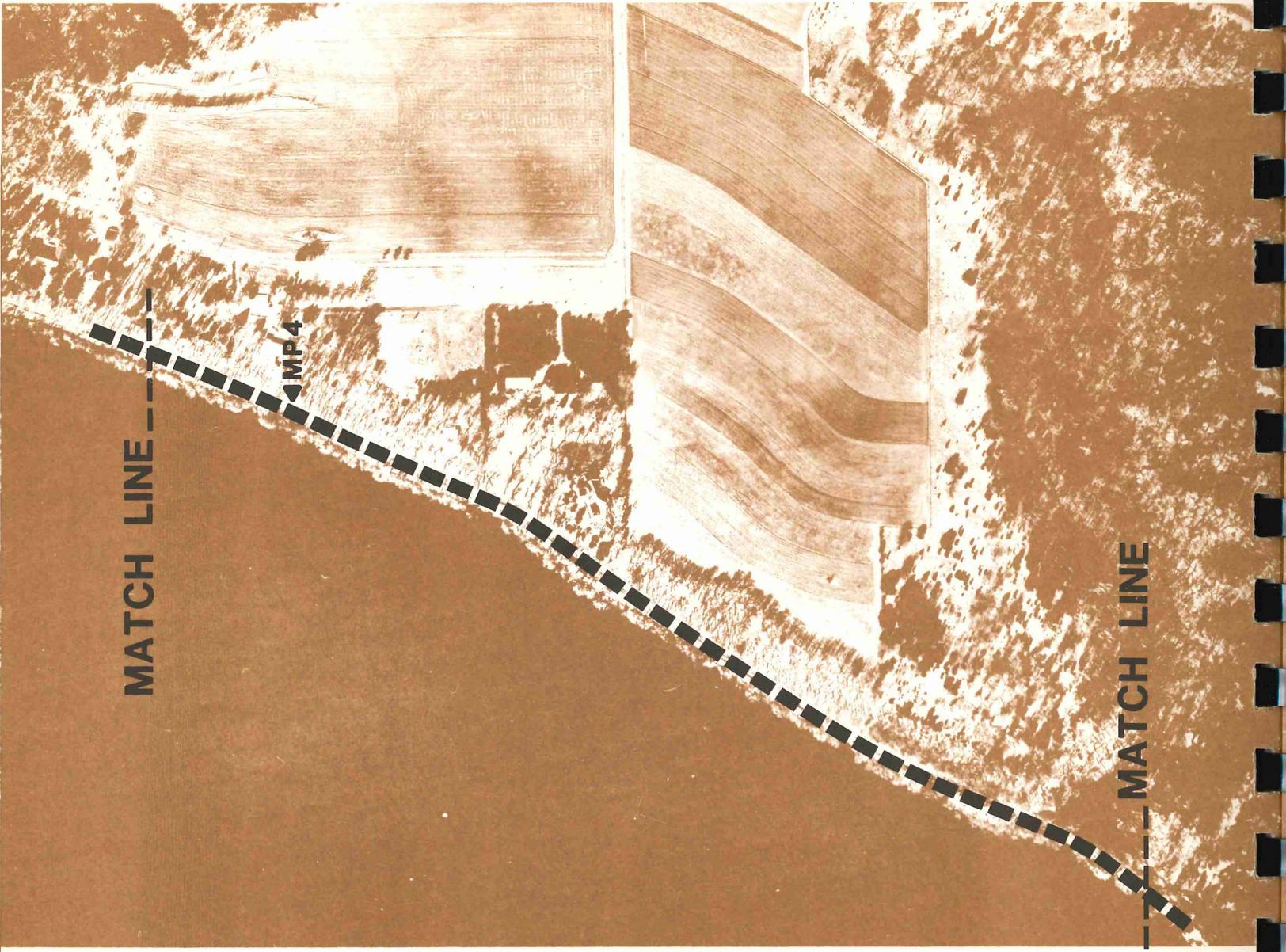
MATCH LINE

bridge type a

CARPENTER ESTATE

MATCH LINE

MAP H



MAP I

MATCH LINE
bridge type b

MP5

MATCH LINE
110th ST.

wayside rest area*

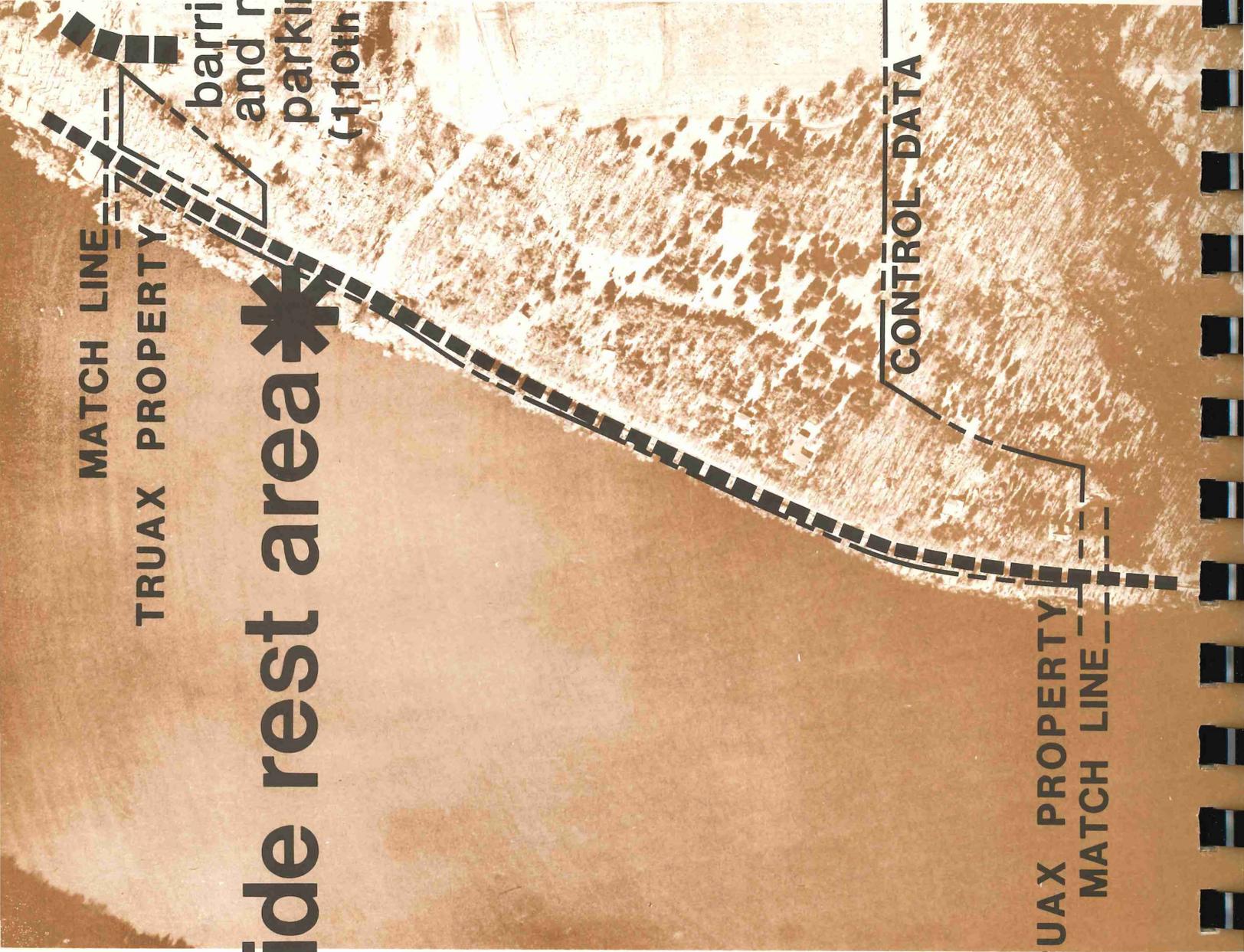
(110th st.)

MATCH LINE
TRUAX PROPERTY

barrier
and no
parking

CONTROL DATA

TRUAX PROPERTY
MATCH LINE



MATCH LINE

bridge type a

bridge type a

MP6

MATCH LINE

MAP L

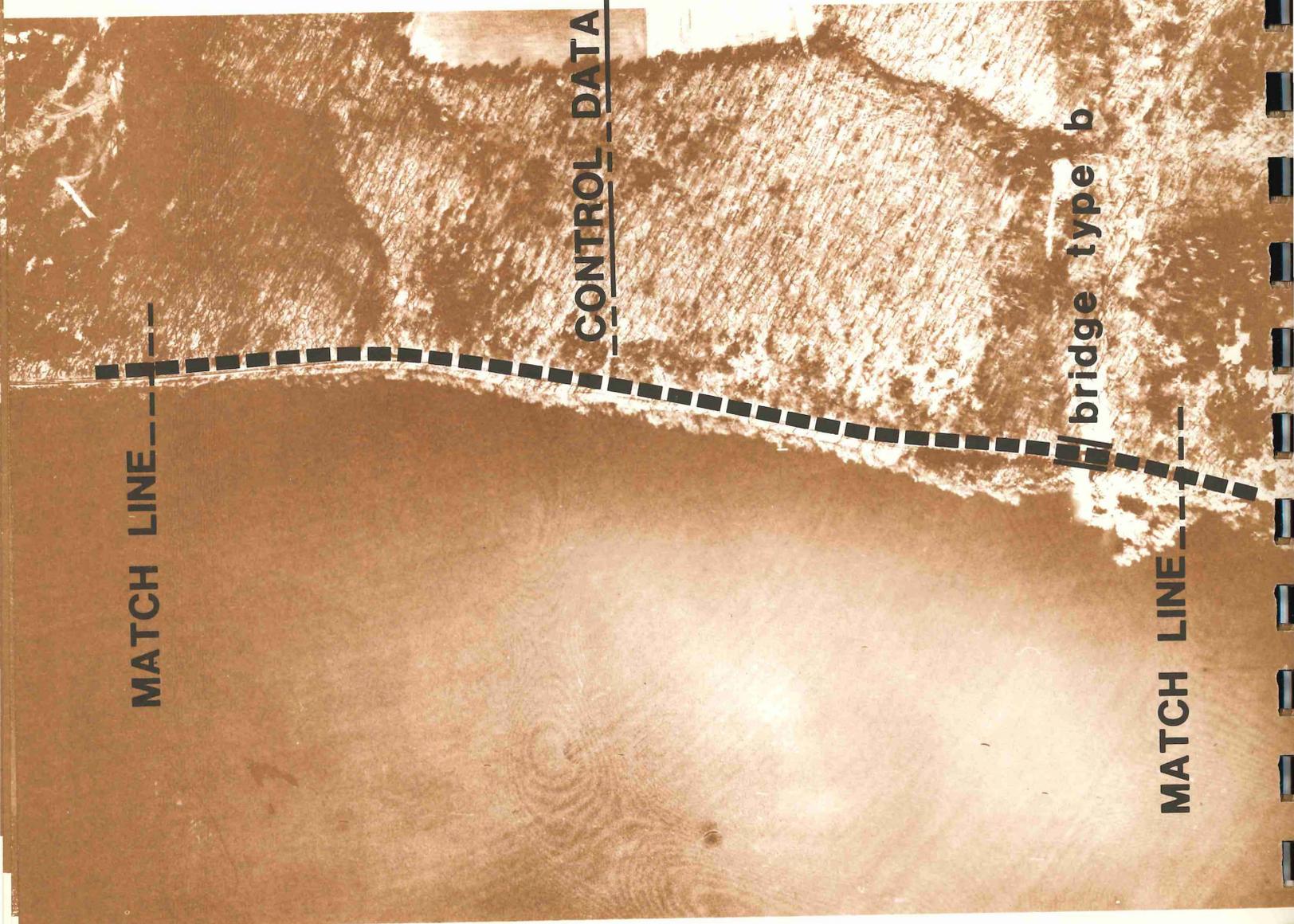
MAP M

MATCH LINE

CONTROL DATA

bridge type b

MATCH LINE

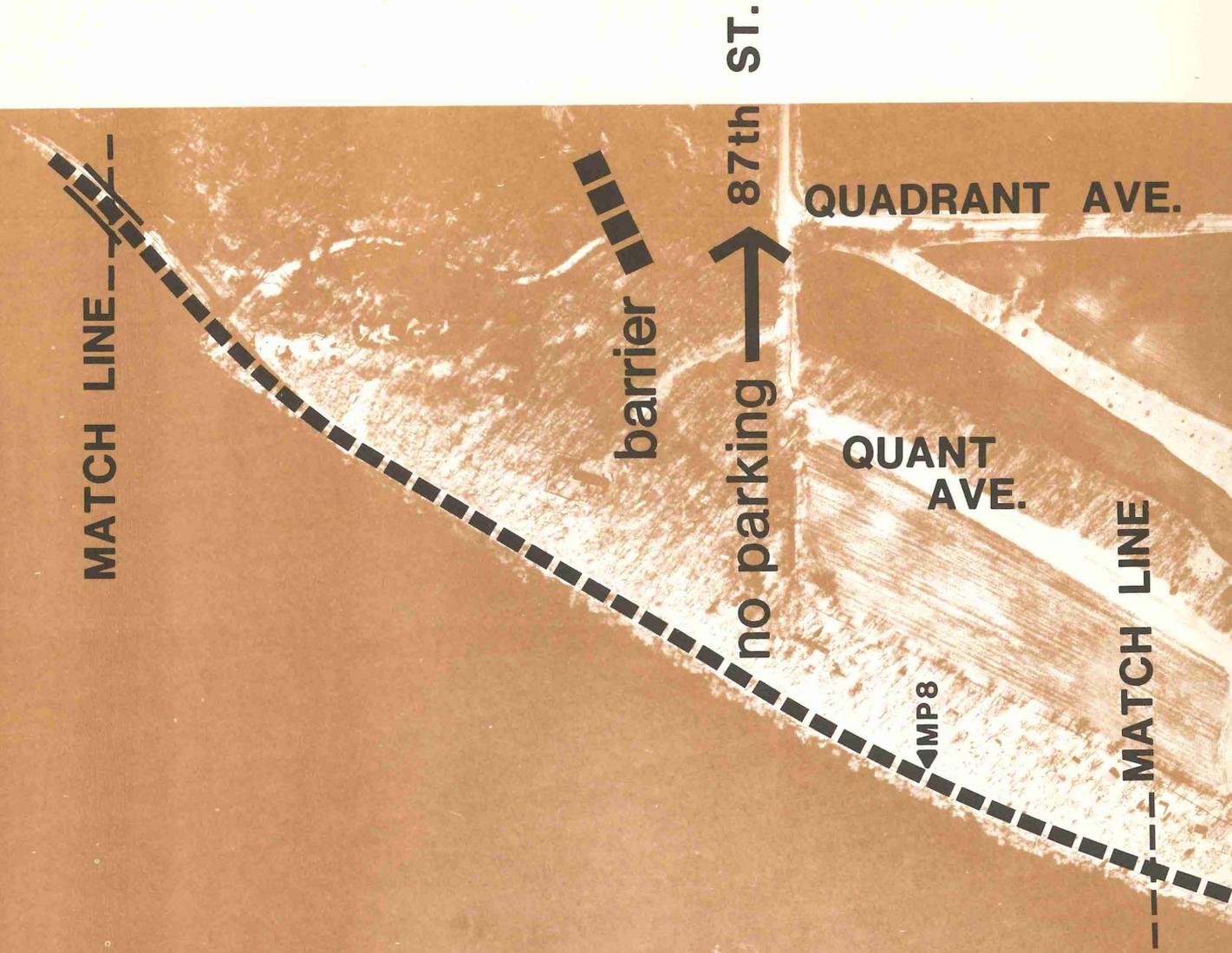


MATCH LINE

MP7

MATCH LINE
bridge type b

MAP N



MATCH LINE

barrier

no parking

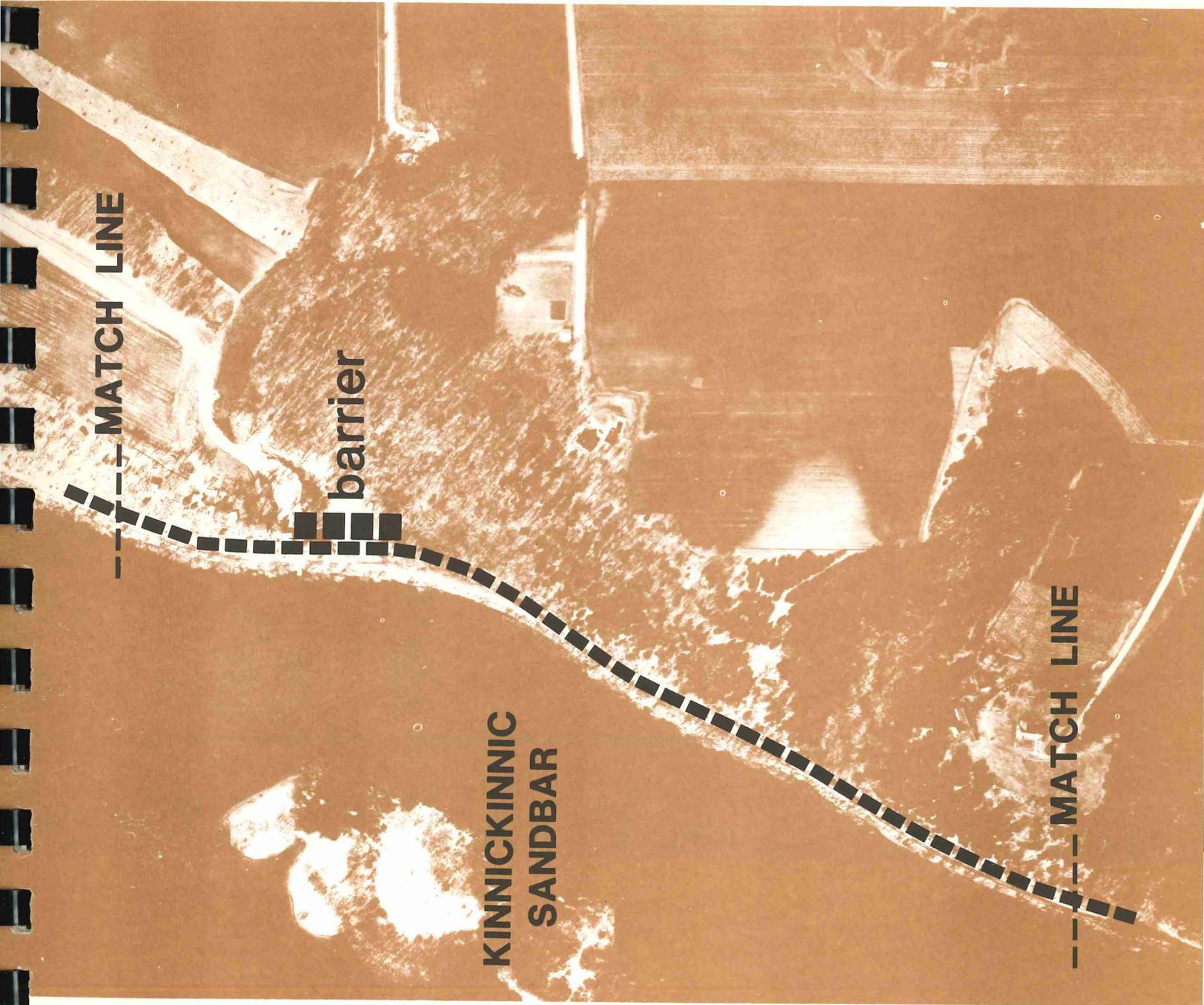
87th ST.

QUADRANT AVE.

QUANT AVE.

MATCH LINE

MP8



MATCH LINE

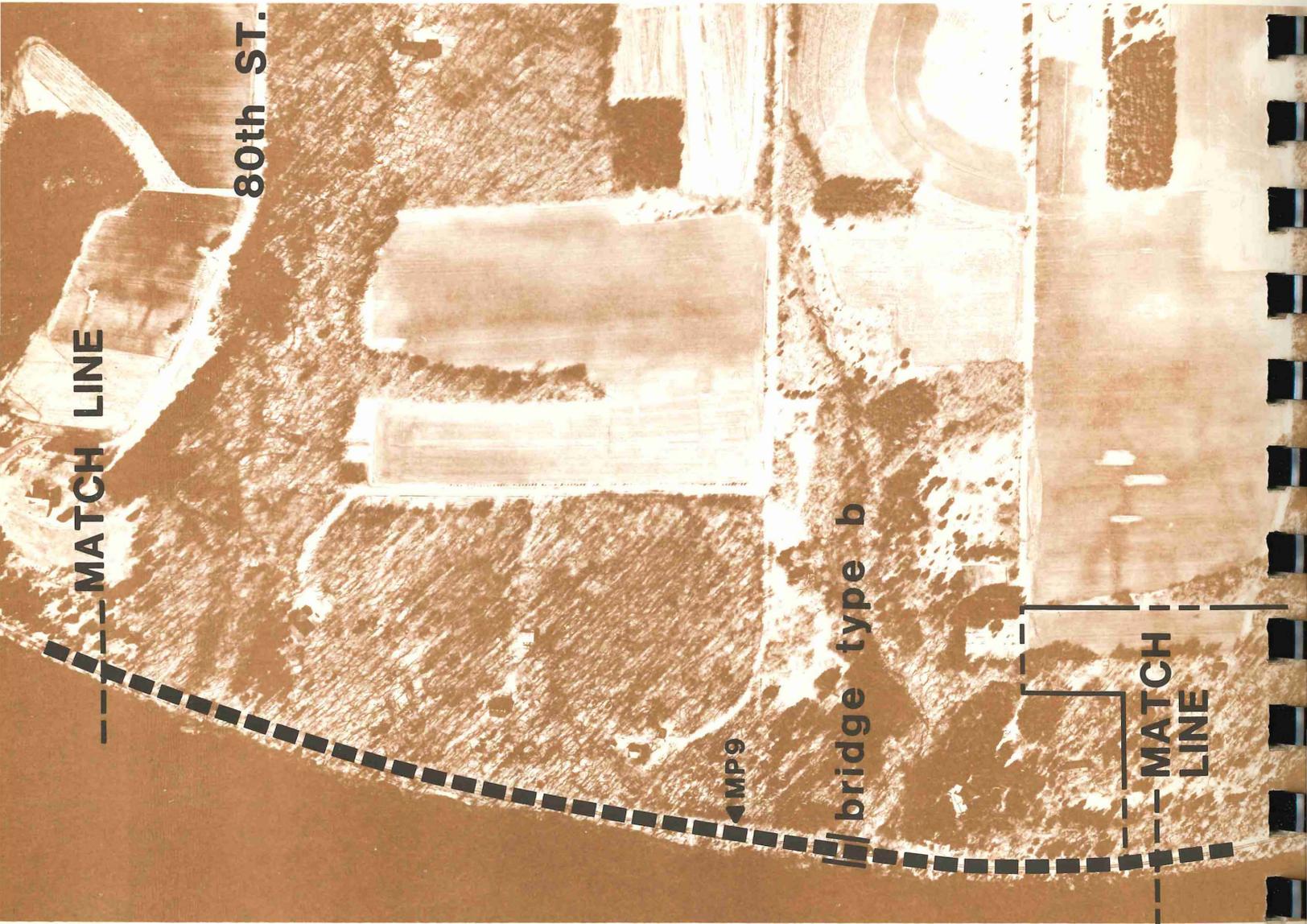
barrier

KINNICKINNIC
SANDBAR

MATCH LINE

MAP P

MAP Q



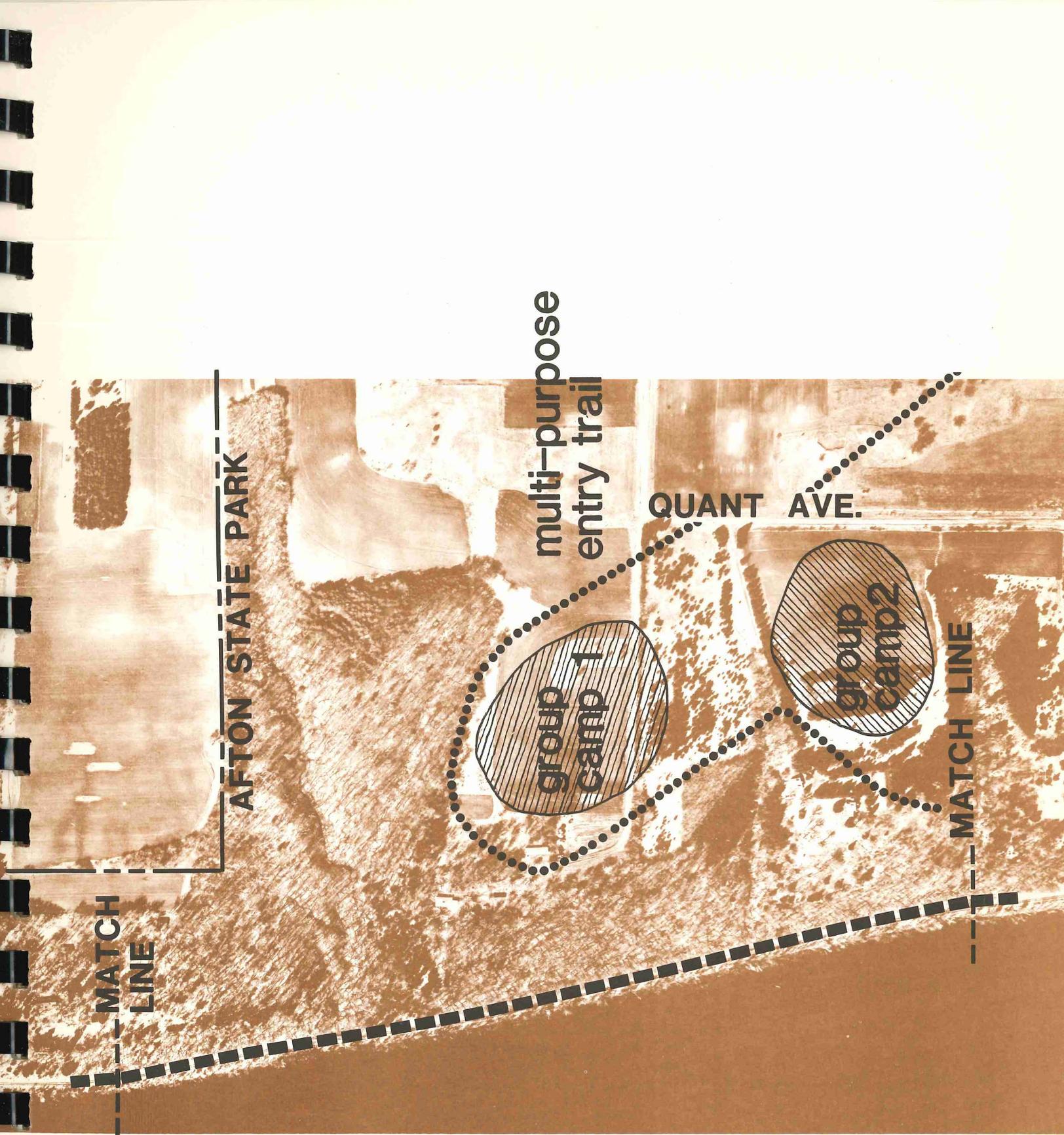
MATCH LINE

80th ST.

MP9

bridge type b

MATCH LINE



MATCH
LINE

AFTON STATE PARK

multi-purpose
entry trail

QUANT AVE.

group
camp 1

group
camp 2

MATCH LINE

MAP R

entry road

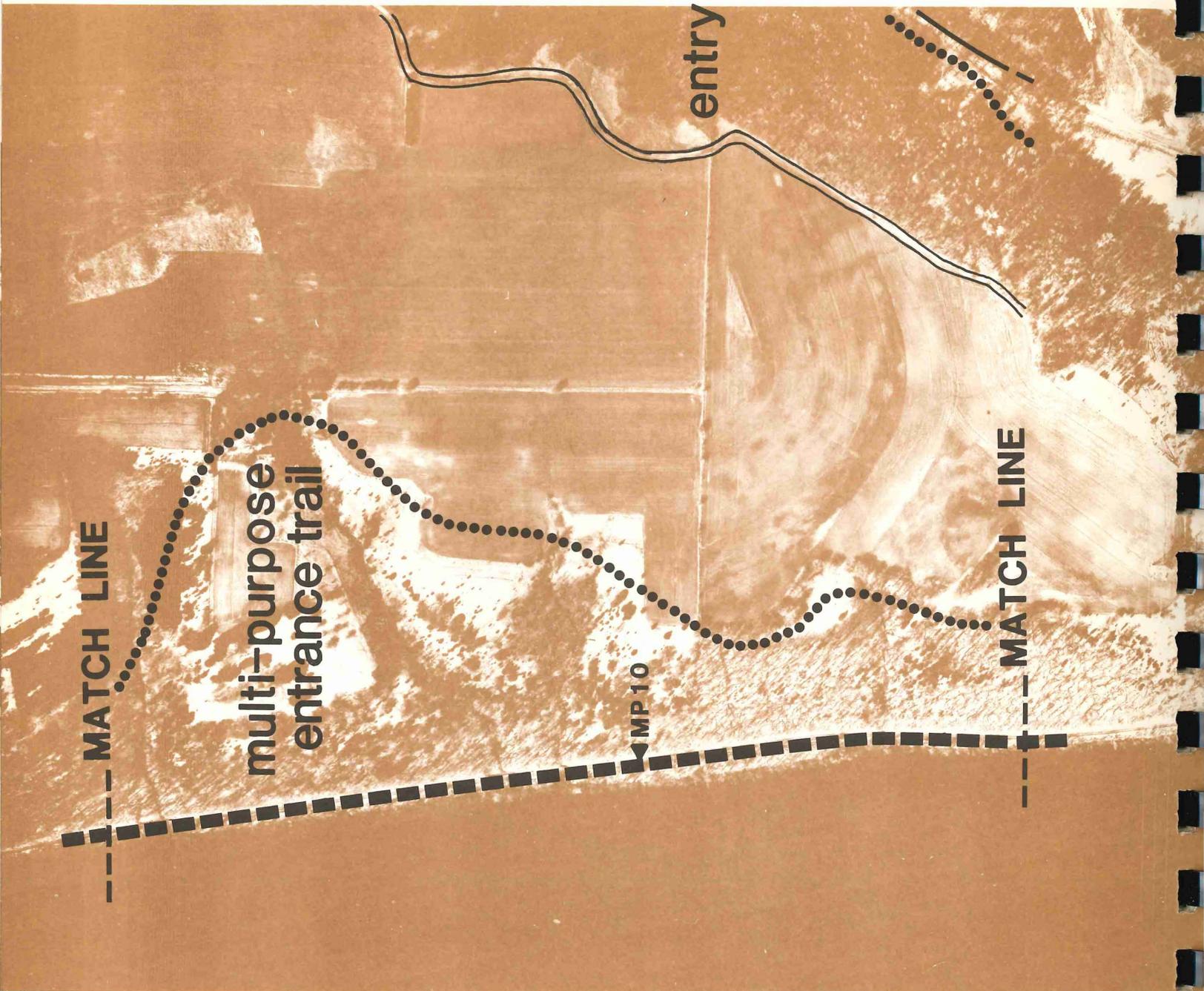
multi-purpose
entrance trail

MP 10

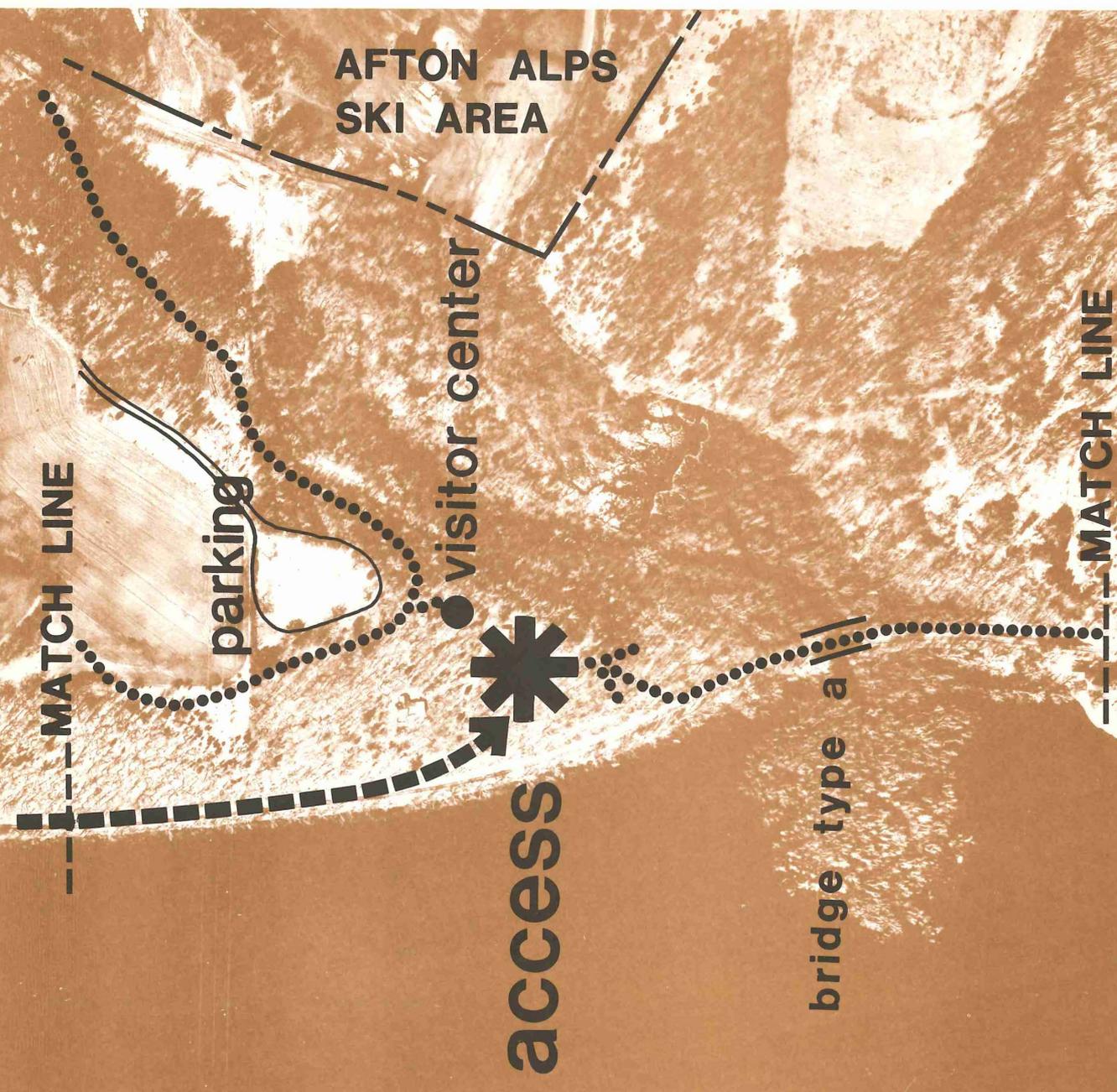
MATCH LINE

MATCH LINE

MAP S



AFTON ALPS
SKI AREA



MATCH LINE

parking

visitor center

access

bridge type a

MATCH LINE

MAP U

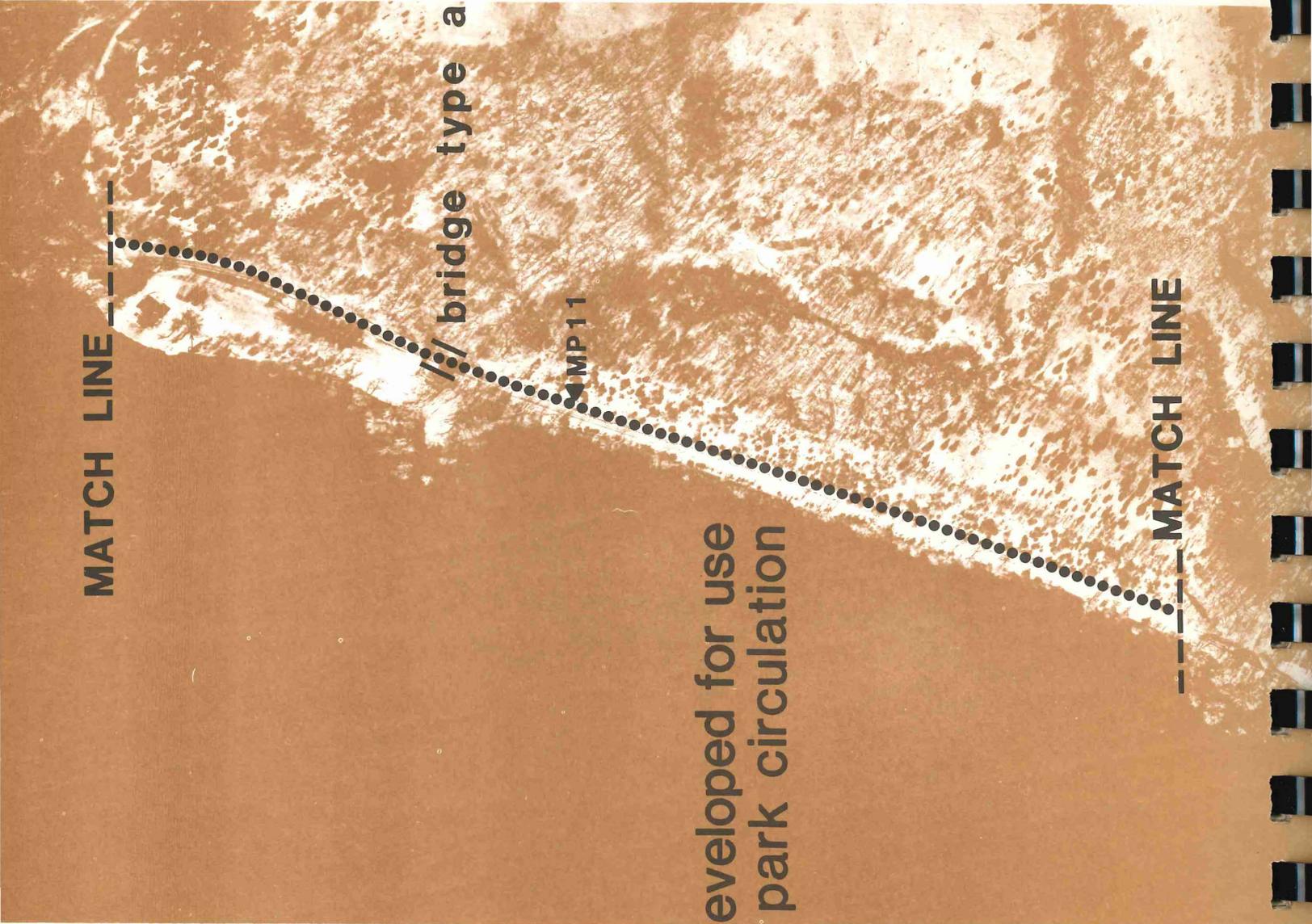
trail developed for use
as part of park circulation

MATCH LINE

bridge type a

MP11

MATCH LINE



MATCH LINE

bridge type a

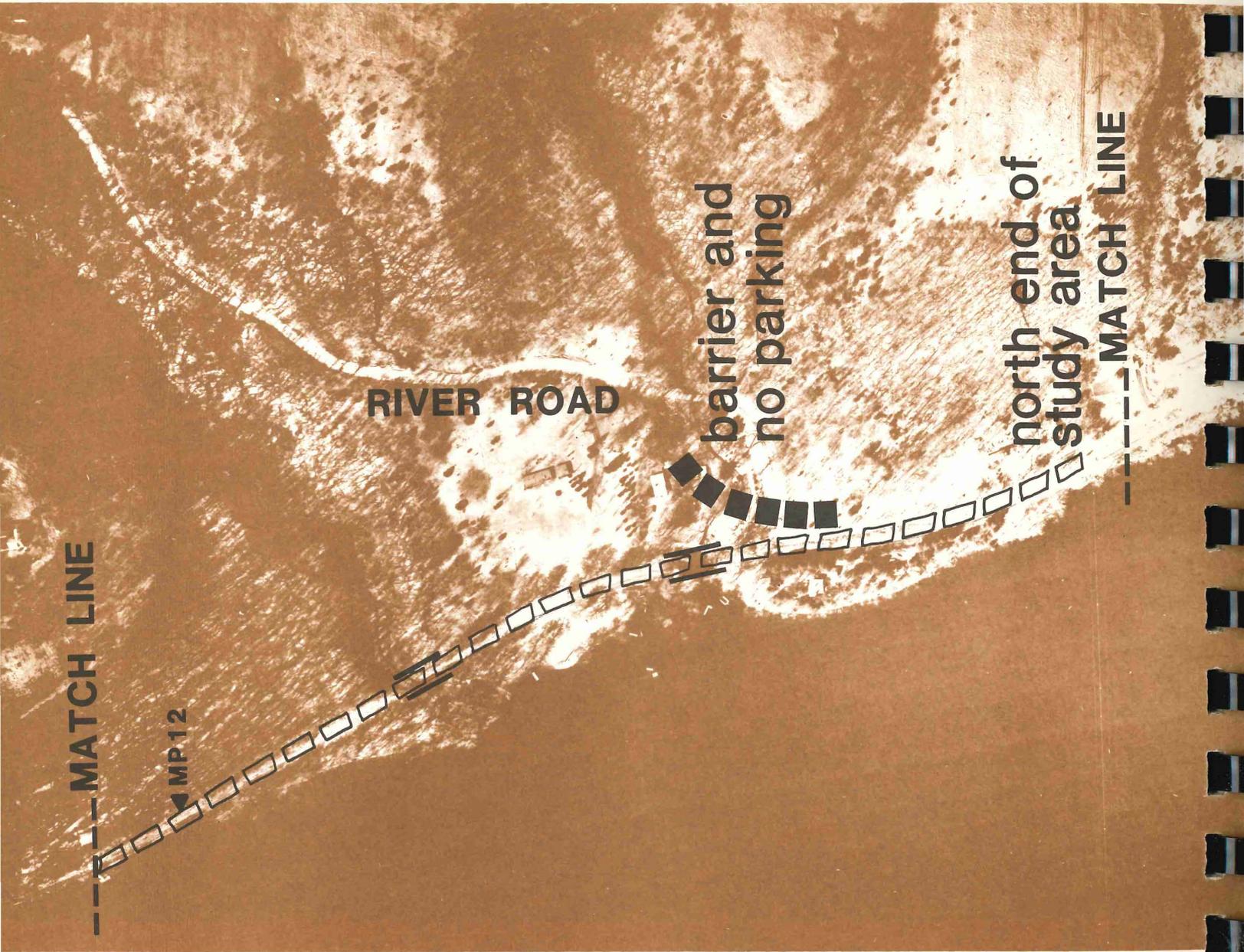
end of trail
development

AFTON STATE PARK

SWEDE HILL
DRIVE

MATCH LINE

MAP V



MAP W

MATCH LINE

◀MP13

MAP X

IMPLEMENTATION

Implementation of this trail proposal is dependent upon the availability of funds to make this trail a reality. Under the Outdoor Recreation Funding Program, the State legislature appropriated \$1.8 million for acquisition and \$1.8 million for development (1977 Laws-Chapter 421). Funding for the St. Croix Trail would come from this program based upon remaining funds available. Acquisition cost of the twelve-mile right-of-way is unknown at this time. Purchase price will be negotiated with the Milwaukee Road based upon fair market values.

Once the Milwaukee Road receives final approval of the abandonment, it will remove all rail and ties leaving only the bridges and road bed. Treadway construction would include shaping and compaction of the subgrade, correction of any unstable soils, and application of 3-6 inches of crushed stone. The treadway will be constructed eight feet wide and will be highly compacted. There are 16 existing bridges along the corridor which will need decking and railings. All of these bridges were rebuilt recently by the Milwaukee Road so that all are structurally sound and only need to be redecked. Decking upon some bridges will be expanded to provide mini-waysides and viewing opportunities. These bridges occur over the intermittent streams along the corridor. These streams, through the years, have developed small level deltas providing excellent beach areas for the land owners. Bridge railings at the deltas will be extended along the treadway to provide direction and a barrier to prevent the trail user from leaving the treadway. Native vegetation should be utilized in conjunction with the railing to provide added barriers and to funnel the user onto the bridge and along the treadway. DNR experience has shown that development costs of treadway and decking has averaged \$10,000 per mile.

Support facilities at the access points will include a gravel parking lot for approximately 30 cars, a well to provide drinking water, toilet facilities, and user amenities. At Point Douglas and Afton State Park there are adequate facilities being programmed such that at

these two access points there would only be a need to provide the actual access development onto the treadway. The Hastings access will need total development including land acquisition. The trail wayside, developed at the Truax property would include a well, toilet facilities, and related beach amenities. Toilets provided both at the Truax property and the Hastings access will be permanent, pit-type toilets which are pumped out. The design will use natural materials which are harmonious with the environment. Trail amenities such as benches, litter receptacles, signage, interpretive exhibits, and bollards will also be provided along the treadway.

Construction Costs

Treadway \$10,000 x 12 miles	=	\$120,000
Support Facilities (access points)	=	\$ 65,000
Trail Wayside (Truax property development)	=	\$ 25,000
Trail Amenities (signage, interpretive programs, benches, etc.)	=	<u>\$ 80,000</u>
TOTAL	=	\$290,000*

*This figure does not include any fencing.

As indicated earlier, the trail segment for Hastings to Point Douglas has been designated as part of the Great River Road. The federal program, administered locally through the Minnesota Department of Transportation (Mn/DOT), will provide a bike trail and parkway road facility utilizing existing roadways from Point Douglas to Lake Itasca. Development cost for the Great River Road program is based upon a 75% Federal - 25% State or local cost sharing basis. There also exists the possibility that Great River Road trail spurs, such as the Point Douglas - Afton State Park segment, might become authorized for similar funding.

Presently, Mn/DOT is developing plans to upgrade U.S. Highway 10 and its related crossing of the St. Croix River at Point Douglas. Preliminary plans indicate that the existing railroad bridge over Highway 10 will be removed. Dependent upon the timing of any trail and highway plans, a determination will be made regarding the need to provide a new overpass, underpass, or at-grade crossing and how the crossing might be funded.

To provide limited access onto the treadway, the existing access points at 110th Street and 87th Street should be closed. The DNR, along with local residents, should petition the appropriate local municipality to vacate these public rights-of-way from the corridor back to the bluff line. All local property owners would still have adequate public or private access to their property. Along with the petition to vacate, there should also be a request to provide no parking zones at these points to insure these areas do not remain as locations for noisy parties and a source of local disturbance.

If any property owner along the trail feels that a fence is necessary, the DNR will cooperate in building and maintaining the fence in accordance with Minnesota Statute 1976 - Chapter 344. That statute requires that a partition fence between adjoining landowners be built and maintained by adjoining landowners in equal shares.

In response to the property owners concern of theft, vandalism, and general nuisance, trail hours will be limited to between dawn and dusk with no camping, parties, or trail use after dark allowed. All firearms will also be prohibited. To enforce the rules and regulations, DNR Trail or Park employees do have the authority to write infractions on Conservation Officer Form 145. Such a report is admissible as court evidence. They do not have the power to make arrests. To assist in maintaining compliance with all public laws specific to residents' concerns, the Washington County Sheriff's office has suggested that trail personnel should be linked to the Sheriff's office by radio to provide quick response to any problem. The most important deterrent to any misuse or misconduct is the visible presence of the trail user. Criminal acts are now being carried out in an unobserved, inaccessible environment. There is also the need to increase existing enforcement capabilities upon the river.

Treadway construction and ample emergency access points will provide accessibility for enforcement personnel to any problem area along the corridor; safety and enforcement access will thus be improved over existing conditions. The potential of wildfire in the area is low, based upon existing vegetation types (See Appendix). Should conditions ever arise where there is a high fire danger, the trail will be closed. Fire fighting equipment will be stationed at Afton State Park. With radio communications, fire equipment could be called quickly to any outbreak of fire. Local property owners will also be informed of the Park emergency number to report wildfires.

Maintenance

Since this trail will be connected to Afton State Park, any trail personnel will be under the direct supervision of the Park manager. One full time technician and one nine-month laborer will be required to maintain this trail.

Technician - will administer the total maintenance and operations program, and implement appropriate segments of the development program. The technician will supervise the laborer and other temporary employees, provide law enforcement, maintain good public relations, solicit volunteer labor, and assist in all operations when possible. The prime responsibilities of this uniformed technician will be enforcement of the rules and regulations and the education of the visitor to the proper use of the trail.

Laborer - will be responsible for maintenance of the buildings, grounds, trails, parking areas, tables, signs and related equipment. The laborer will also provide semi-skilled labor for rehabilitation and development projects. CETA and other related programs can provide valuable assistance when available; however, they require qualified supervision. This position will not be needed during the winter months when the technician will be able to perform all required duties.

Trail Technician	12 months @ \$1,343/mo.	= \$16,116
Laborer	9 months @ \$6.79/hr.	= <u>\$10,755</u>

(These figures include fringe benefits) \$26,871

Maintenance of a trail corridor includes, but is not limited to, surface repair, fence installation and repair, sign repairs and replacement, upkeep of rest areas, bridge and culvert repairs, and vegetative management. The following maintenance schedule is suggested as a guideline subject to change as weather conditions and trail use suggests:

- Trail mowing - After July 1, mid-August and early October. This may vary with a particular season to accommodate wildlife propagation and only treadway shoulders will be mowed.
- Trail grooming - If preferred by users, before and after weekends, and when sufficient snow permits.

- Litter pick-ups - As necessary. Experience has shown that trail users usually "police" the corridor.
- Treadway maintenance - Annual major repairs with minor repairs as they occur.
- Supporting facilities - Weekly inspection, with clean up and repairs.
- The management program should include fencing of portions of the trail where necessary to protect adjoining landowners. This can be accomplished to a degree by vegetation growth.

Where revegetation is necessary, plant species characteristic of the area will be planted. To maintain vertical clearance for maintenance equipment and users, woody plants along the treadway should be pruned for a minimum clearance of eight feet.

Noxious weeds will be controlled. This can be accomplished by two methods. First, where there is an immediate weed problem, further infestation will be controlled by mechanical methods. Second, for long term weed control, native vegetation will be planted and encouraged to shade out undesirable species while providing additional wildlife habitat.

Equipment

The following equipment is considered necessary for the operation of the St. Croix Trail, although the needs may change periodically.

<u>Unit</u>	<u>Initial Cost</u>	<u>Replacement</u>	<u>20-Year Cost</u>
1/2 Ton pick-up	\$ 4,700	5-6 years	\$18,800
Radio Equipment	\$ 5,000	20 years	\$ 5,000
Water tank, pumps, hose	<u>\$ 1,500</u>	10 years	<u>\$ 3,000</u>
	\$11,200		\$26,800

The following list of equipment is also needed to maintain the trail but would be purchased for Afton State Park and be available for use on the trail. Cost for this equipment has previously been identified as a projected cost for the park and would not be a cost associated with trail maintenance.

<u>Unit</u>	<u>Initial Cost</u>	<u>Replacement</u>	<u>20-Year Cost</u>
Tractor	\$ 9,000	10 years	\$18,000
Mower for tractor	\$ 1,200	6 years	\$ 3,600
Blade for tractor	\$ 600	15 years	\$ 800
Trail Drag	\$ 2,000	5 years	\$ 8,000
Snow Groomer	\$ 3,500	10 years	\$ 7,000
Mower (small)	\$ 500	3 years	\$ 3,500
Chain Saw	\$ 200	3 years	\$ 1,400
Sprayer	\$ 200	5 years	\$ 800
Misc. Tools	\$ 1,000	10 years	\$ 2,000
	\$18,200		\$45,100

Also included in Trail costs associated with maintenance would be the regular supplies required for the day-to-day operations. A general breakdown of these annual expenses would be as follows:

10 Rents - (special equipment, etc.)	\$ 500
12 Repairs - (Truck and equipment repairs)	\$ 500
18 Contractual Services (garbage hauling)	\$ 500
30 Materials & Supplies (gasoline miscellaneous supplies)	\$ 3,000
	\$ 4,500

The cost figures discussed in this section do not include any acquisition costs. Acquisition costs of the corridor, the Truax property and the Hastings access are unknown at this time. Actual cost will be based upon fair market values of comparable land and should be added to the development and maintenance costs to provide a total cost of the St. Croix Trail.

CONCLUSIONS

The St. Croix River exhibits a number of outstanding resource features. The St. Croix Trail corridor offers numerous scenic and educational opportunities to the trail user. There are a number of other existing and proposed recreational trails which are located within urban areas or mundane countrysides. Trail opportunities which offer such outstanding aesthetic, scenic, historic, ecological, and geological features in close proximity to the metropolitan area and have excellent access, are rare. There are a number of public agencies which have recognized the potential for a St. Croix Trail and have recommended that this corridor be so developed. Washington County, the Metropolitan Council, Great River Road, and the Lower St. Croix Management Plan all indicate this specific corridor should be utilized as a recreational trail.

There have been a number of concerns raised by adjoining land owners. The existing corridor is presently very difficult to access and is isolated from the view of the public. Property owners indicate that they are presently experiencing many problems with vandalism, theft, trespass, and general nuisance. Their concern is an outgrowth of existing problems and a fear that these existing problems will increase. While these are very legitimate concerns, these fears, similarly expressed in other trail development areas, have rarely materialized. The best deterrents to potential criminal acts will be increased accessibility for law enforcement, and more importantly, the physical presence of the trail user.

The concern surrounding the opening of this area to more people is real. There will definitely be more people in the area utilizing the corridor. The planning team has estimated that this trail, due to its resource opportunities and its location within an hour's drive of some 2 million people, could have between 50,000-60,000 visitors yearly. Summer usage could be between 600-700 visitors on peak weekend days. Based upon public use capacity standards developed by the Department of the Interior, Fish and Wildlife Service for its Wildlife Refuge system, and Hennepin County Parks, a twelve mile interpretive trail can accommodate between 750-900 hikers at a hiking speed of 3-4 miles/hour plus between 400-500 bikers at a speed of 10-15 miles/hour during a typical eight hour peak day. These capacity figures represent maximums, such that the resource will not be diminished or destroyed. Estimates for the St. Croix Trail are well below these suggested capacity standards, such that there would be

minimal impacts upon the environment, but a major positive impact upon public use and interpretation of the resource. Adjoining residents will experience increased use of this resource, but at a level well below that which may destroy or diminish it.

There have been a number of alternatives considered for use of this corridor and/or alternative locations for a trail. One alternative suggested has been to convert the line into an excursion trolley, improving the rails and utilizing it for scenic trips between Hastings and Afton State Park. While being ideal for the elderly and handicapped, no group or agency has, at present, indicated they have the revenue or interest in developing this alternative. Since this alternative would be very costly to develop and maintain, it is probably not realistic.

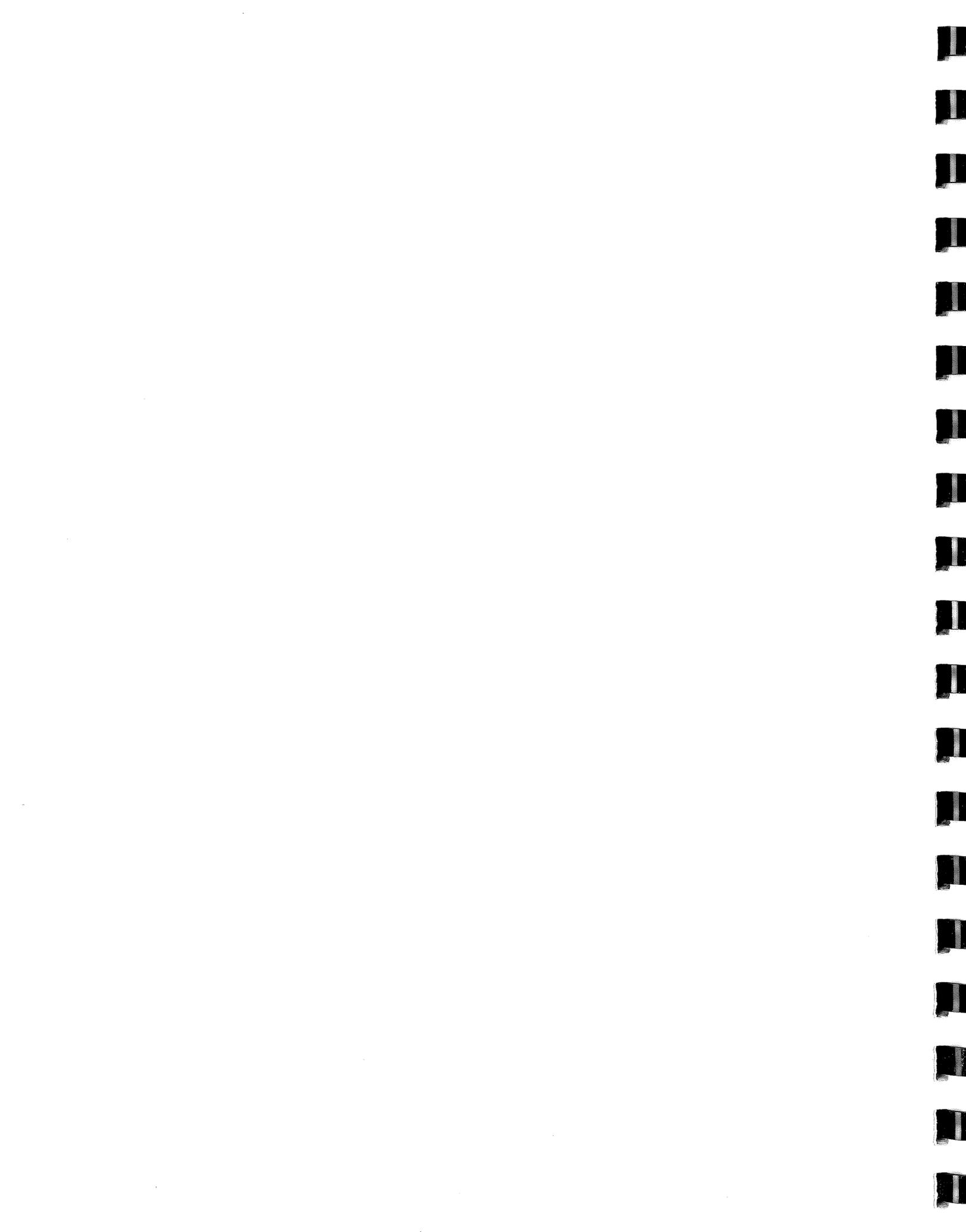
Another alternative would be to let the corridor revert back to the adjoining property owners and/or shift trail activities to Washington County Highway 21. The major drawback of letting the corridor revert to private ownership is that the corridor would still be physically present. Once the rails have been removed, the corridor is open to all types of unauthorized vehicles such as four-wheel-drives, motor bikes, and snowmobiles. While the existing vegetation would eventually overgrow most of the corridor, existing problems would surely increase in the interim. Relocating the trail to County 21 would remove possible conflict with private property but would create new conflicts with County 21 traffic. This resulting trail would be no different than the majority of existing trails. There are no visual or resource amenities to make a trail in this location desirable. Traveling along County 21, one does not even see the St. Croix River or the valley.

The other alternative discussed has been to develop only the portion of the corridor which lies within Afton State Park as a recreational trail. The remaining portion of the corridor would revert back to private ownership. With this alternative, the remaining portion of the corridor would still experience increased problems as discussed earlier. Afton State Park is being developed as a "natural" state park. There will be limited facilities developed, and with the varied terrain most trails will be more difficult and suited for the more experienced user. Development of the corridor within the park will simply not offer the variety that the twelve-mile corridor provides.

There are very few trail opportunities which offer the wide range of richly rewarding experiences as will be provided by the St. Croix Trail. Trail development, however, will also invite more people into a predominantly private environment. This document has presented and evaluated the pertinent data needed to evaluate the feasibility of the St. Croix Trail considering the existing natural resources and social concerns.

The ultimate decision to purchase the corridor and develop a recreational trail lies with the Department of Natural Resources. This document will be utilized in making that decision and guiding actual development if the DNR decides to purchase.

appendix



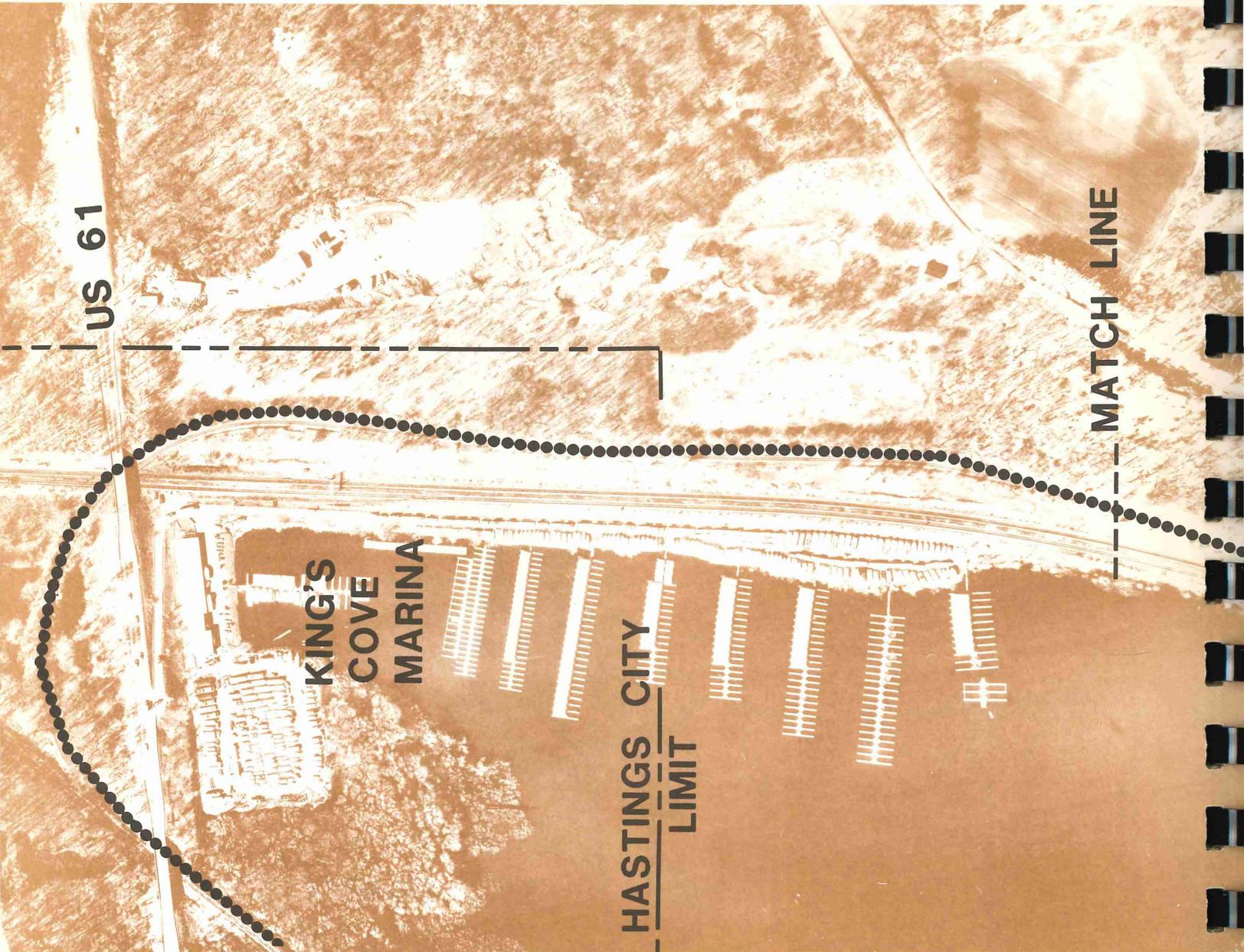


**AIR PHOTO
LOCATION KEY**

**Resident's
Concerns**

- Maps A - D: North ▲
- Maps E - X: North ►
- Scale A - X: 1" = 400'

MAP A

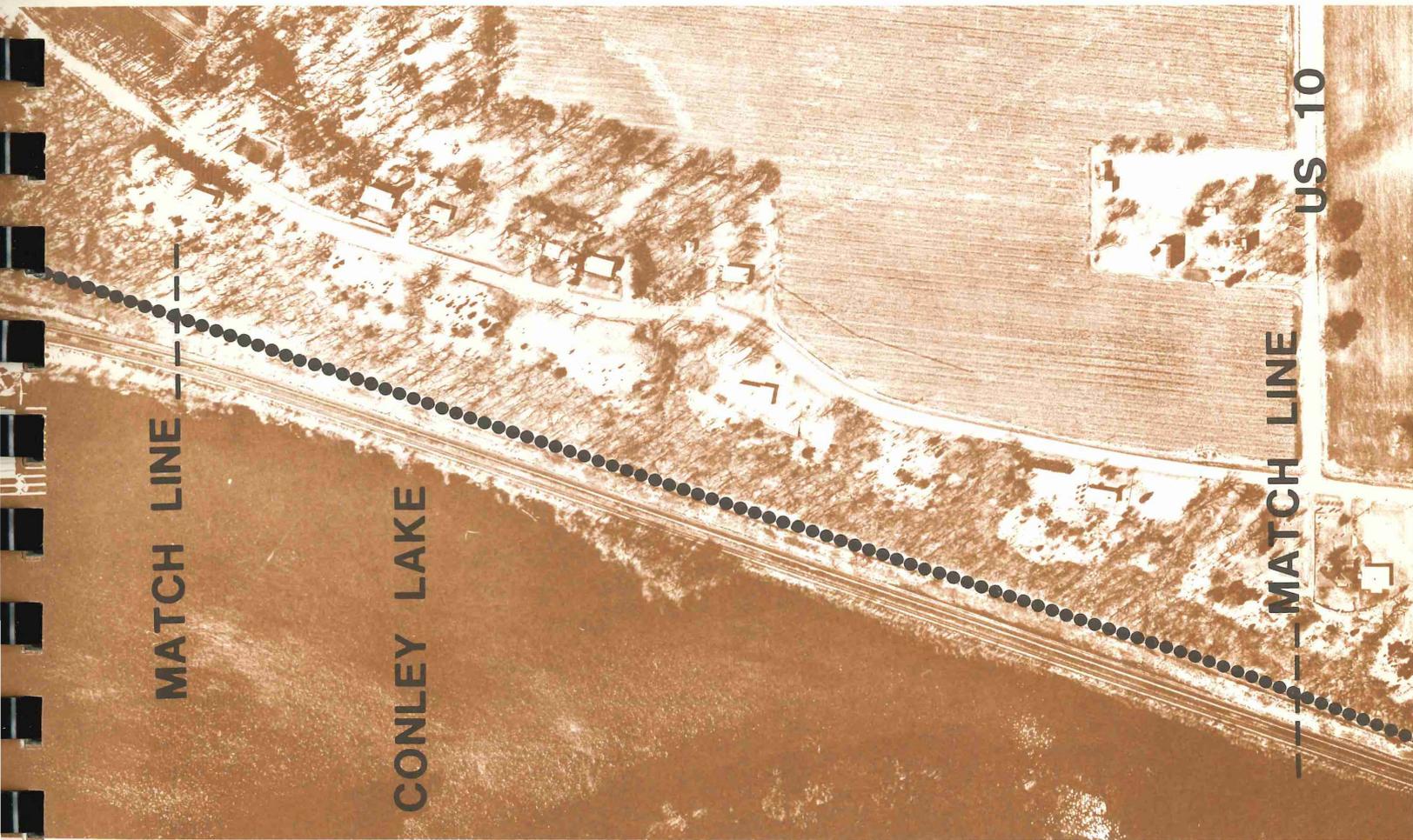


US 61

KING'S
COVE
MARINA

HASTINGS CITY
LIMIT

MATCH LINE



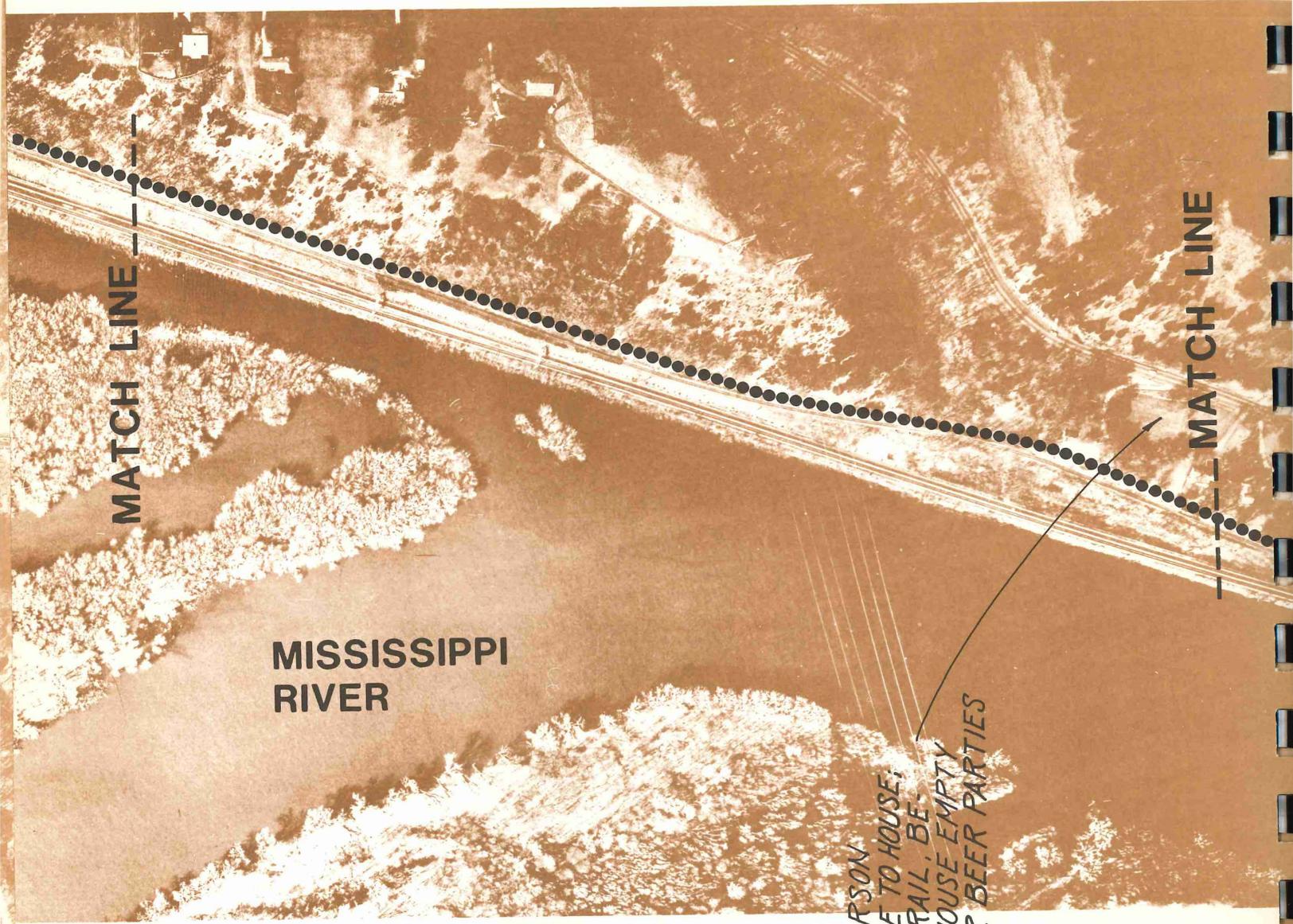
MATCH LINE

CONLEY LAKE

MATCH LINE

US 10

MAP B



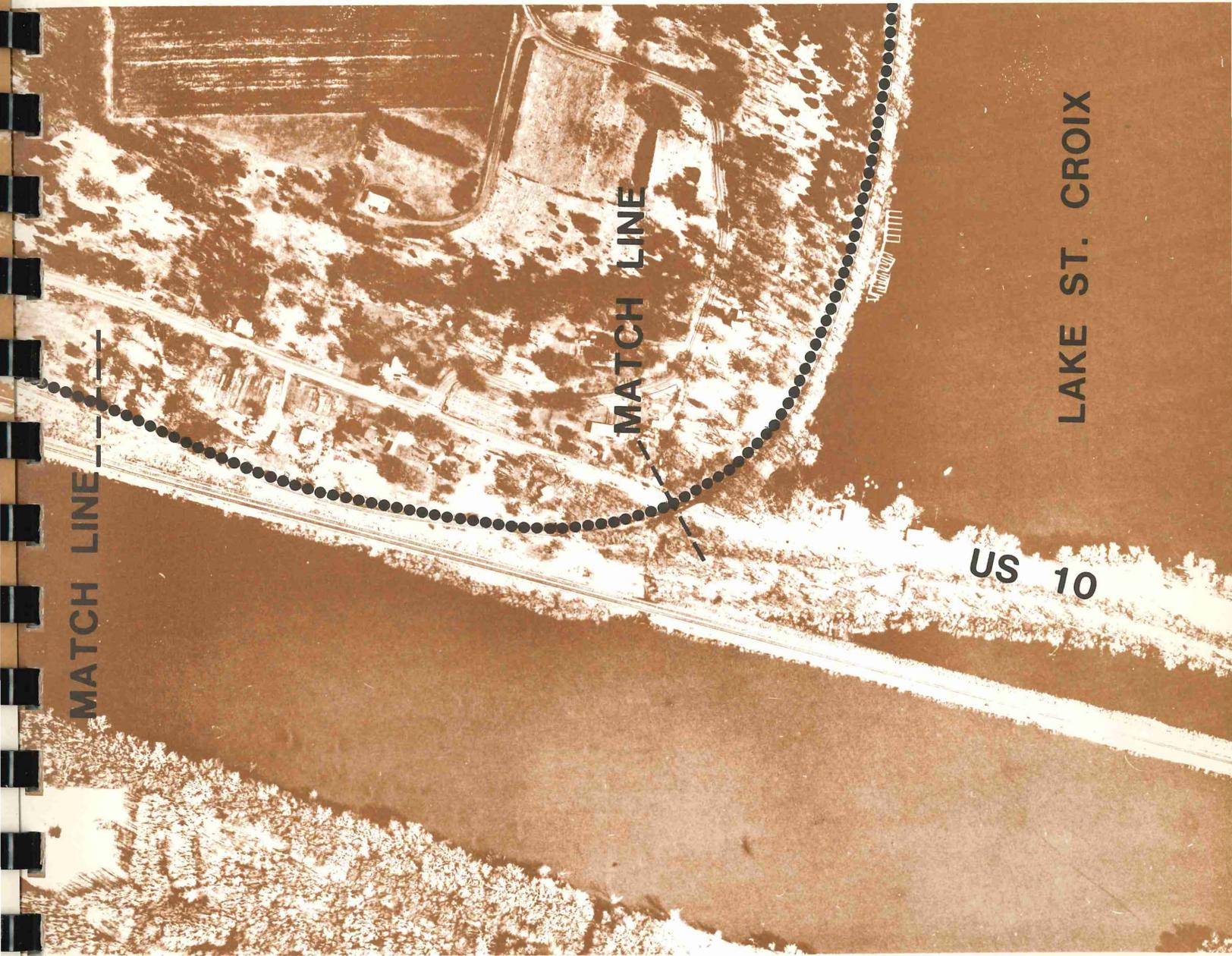
MISSISSIPPI RIVER

MATCH LINE

MATCH LINE

R. D. WATTERSON
TRAIL TOO CLOSE TO HOUSE,
DRIVE LED TO TRAIL. BE-
FORE BOUGHT HOUSE EMPTY
LOTS KNOWN FOR BEER PARTIES
& VANDALISM.

MAP C



LAKE ST. CROIX

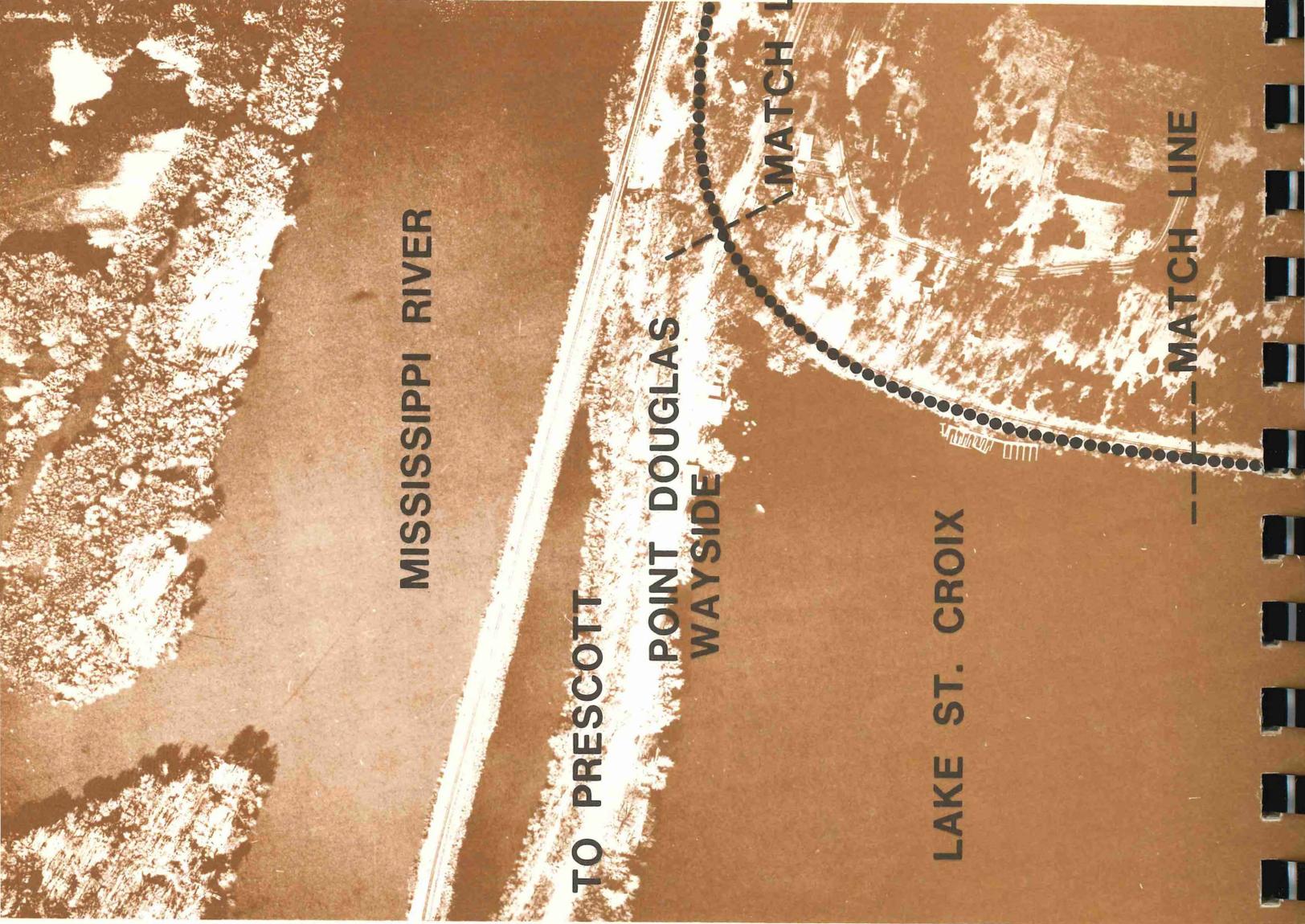
US 10

MATCH LINE

MATCH LINE

MAP D

MAP E



MISSISSIPPI RIVER

US 10 TO PRESCOTT

POINT DOUGLAS
WAYSIDE

LAKE ST. CROIX

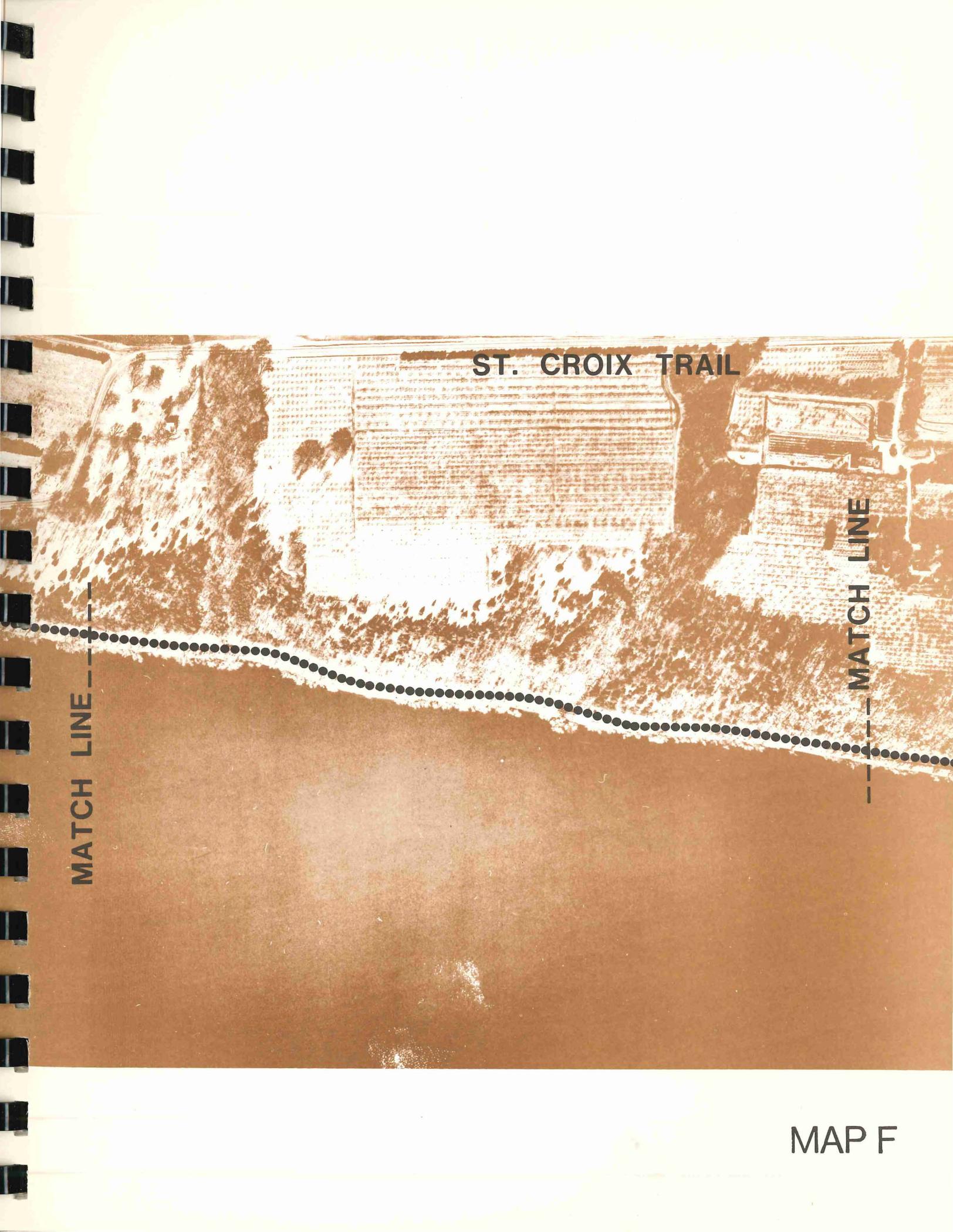
MATCH LINE

MATCH LINE

ST. CROIX TRAIL

MATCH LINE

MATCH LINE



MATCH LINE

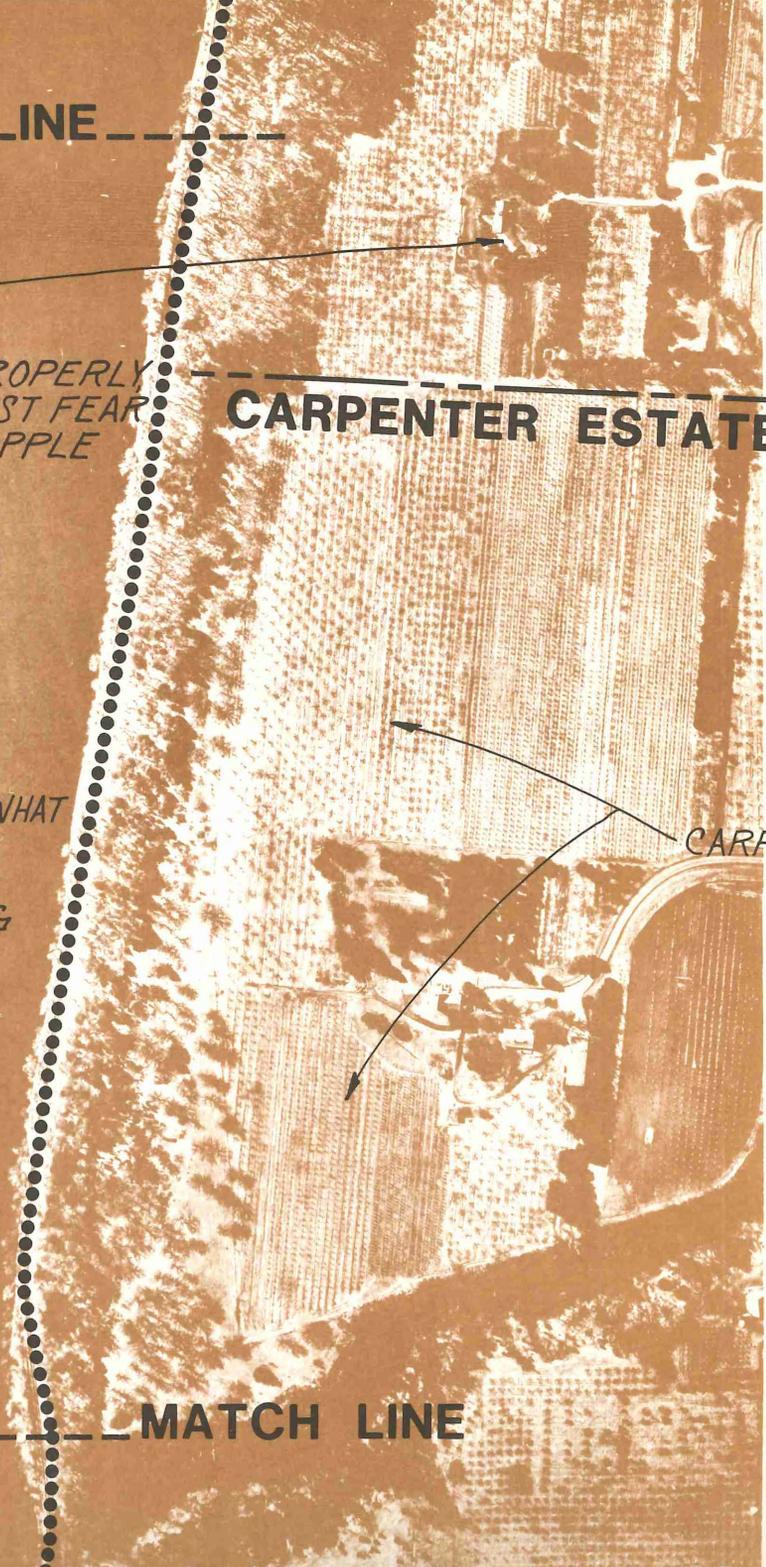
FISCHERS
THIS COULD NEVER BE PATROLED PROPERLY
NO PRIVACY. FIRE HAZARD OUR BIGGEST FEAR
IT TAKES 10 TO 15 YEARS TO BRING APPLE
TREES TO PRODUCTION.

1. DEVALUATION OF PROPERTY!
 2. THEFT OF PRODUCT GROWN
 3. DAMAGE TO TREES
 - a. FRUIT SPURS
 - b. BROKEN BRANCHES
 - c. STRIPPED BARK
 4. SECURITY PROBLEM
 1. VANDALISM
 2. LITTER - THIS IS A PROBLEM NOW WHAT WILL IT BE WITH MORE PEOPLE?
- NOISE - DISTURB WILDLIFE - ALREADY
HAVE UNLAWFUL HUNTING & TRAPPING

CARPENTER ESTATE

CARPENTERS

MATCH LINE



MATCH LINE

CARPENTER ESTATE

L. W. WAGNER
WE HAVE ALREADY EXPERIENCED
TRESPASSING FEARS - FIRE, VANDALISM,
THEFT GENERAL INVASION OF PRIVATE
PROPERTY

PAUL REUTER

JACK SCHWILRE

Mc NAIR

MATCH LINE

MAP H

MATCH LINE

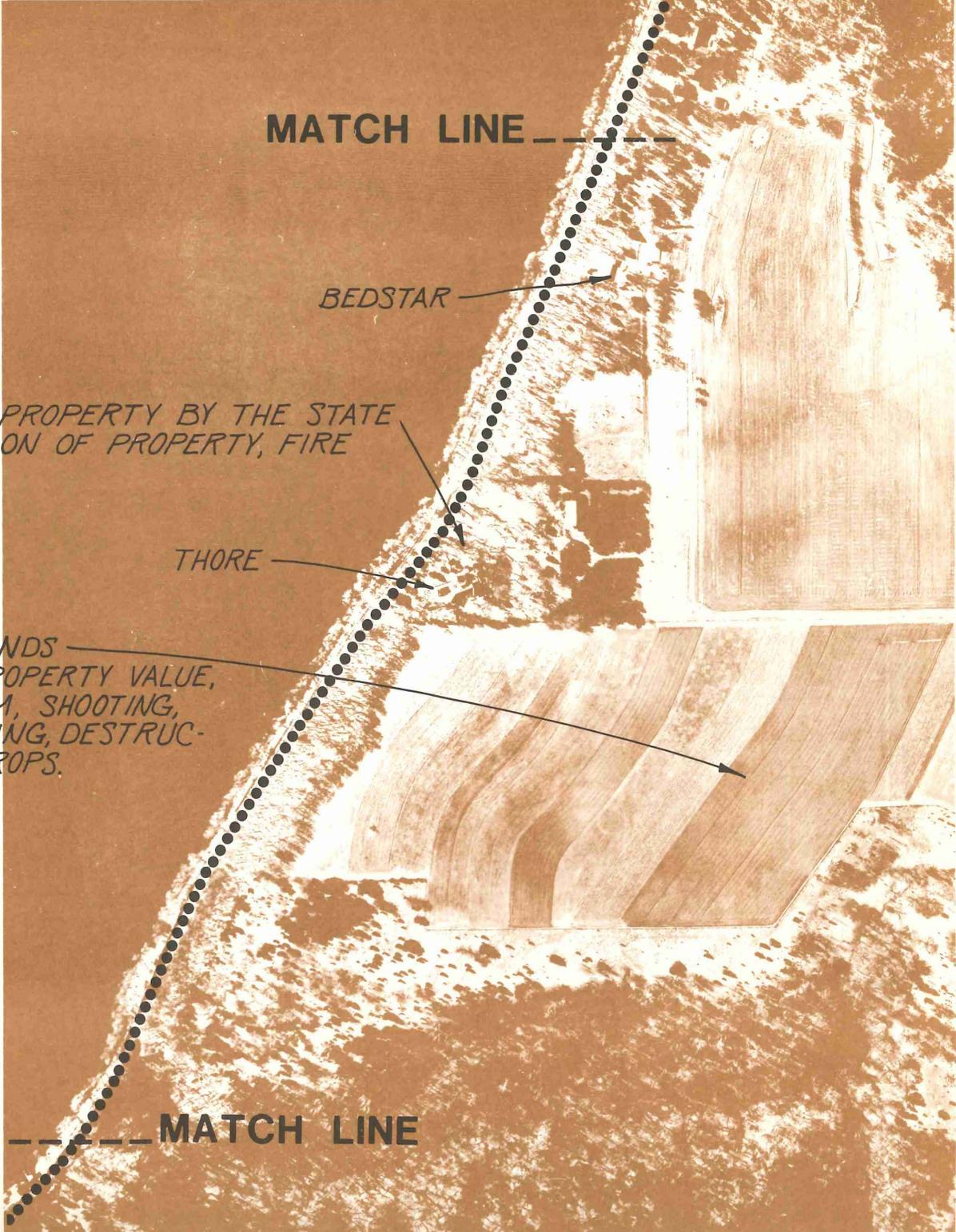
BEDSTAR

THEFT OF PROPERTY BY THE STATE
DEVESTATION OF PROPERTY, FIRE
HAZARD.

THORE

BEHREND'S
LOSS OF PROPERTY VALUE,
VANDALISM, SHOOTING,
TRESPASSING, DESTRUC-
TION OF CROPS.

MATCH LINE



MATCH LINE

O'BRIANS

BORGSTROM
LITTER ON BEACH
VANDALISM AND SHOOTING,
PROBLEM WITH PRIVATE
ROAD AND ACCESS FROM RIVER
BOTH SUMMER & WINTER

VANDALISM, DESTRUCTION,
SHOOTING, TRESPASSING

NOVAK
OPPOSED -
PRIVATE ROAD
PROBLEM

M. CONLAN
VERY CONCERNED ABOUT VANDALISM &
OVERUSE OF 110TH ST.

BAHLS
UNPATROLLED VANDALISM & THEFT, NO FIRE PROTECTION (HAVE
TO COME FROM STILLWATER) LOSS OF PROPERTY VALUE,
OVERCROWDING OF A SMALL CORRIDOR - THE RIVER IS
ALREADY OVERCROWDED. SHERIFF MUST COME FROM STILL-
WATER IF THERE IS ANY PROBLEM.

MATCH LINE

110th ST.

MAP J

MAP K

SATORY

DEFEATED NORTHERN NAT. GAS PIPELINE, WITH DOMAIN.
DEER RIFLE SHOT WHIZZED PAST WIFE'S EAR. SPEED-
BOAT STOLEN BENEATH BEDROOM WINDOW. RIFLE SHOT
THROUGH NEW CAR WINDOWS IN DRIVEWAY. PUT
OUT FIRES WITH PAILS - NO PROTECTION.

MATCH LINE

BURNS

ACCIDENTS HAVE OCCURRED.
WE ALREADY HAVE RIVER TRAFFIC = NEXT WOULD BE
THE TRAIL. 110TH ST. CANNOT HANDLE ADDITIONAL
TRAFFIC ± PARKING. VANDALISM HAS OCCURRED
WILL BE INCREASED. NO FIRE PROTECTION
EXCEPT VOLUNTEER.

EMPHATICALLY AGREE M. CONLAN

CARDWELL

LEWIS
WINDOWS SHOT OUT

LEYASMEYER
BURGLARIZED TWICE, HOUSE,
PROPERTY, BOAT & CANOE VAN-
DALIZED REPEATEDLY.

ELLERBE

CONTROL DATA

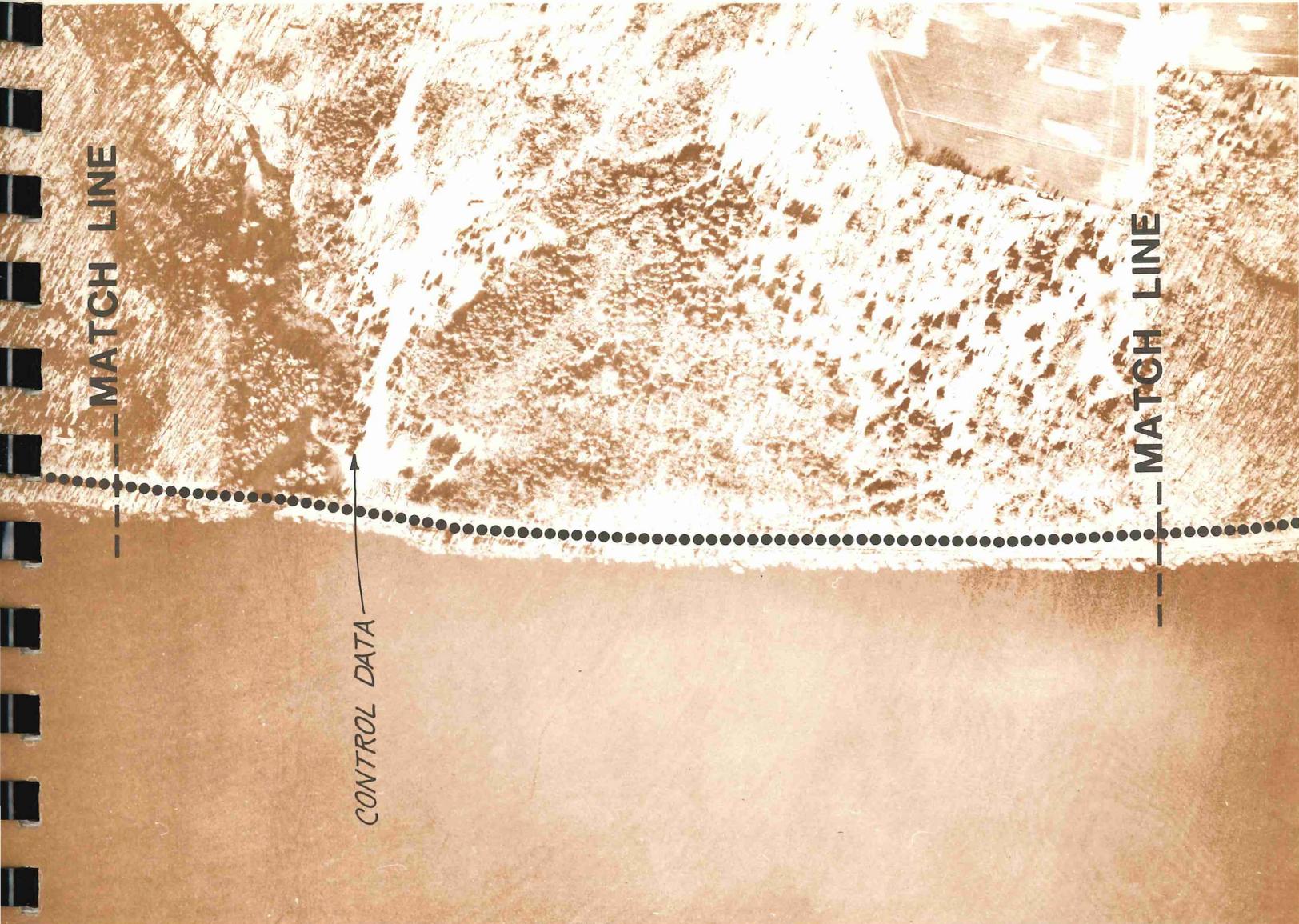
McNULTY

VERY MUCH AGAINST - HIGH VANDAL-
ISM, HIGH FIRE HAZARD, NO FIRE
DEPT. - NO POLICE PROTECTION, NO
PLACE TO GET OFF TRAIL ALL STEEP
SLOPES - PRIVATE PROPERTY

L.J. McNULTY

TRAUX
PROPERTY

MATCH LINE



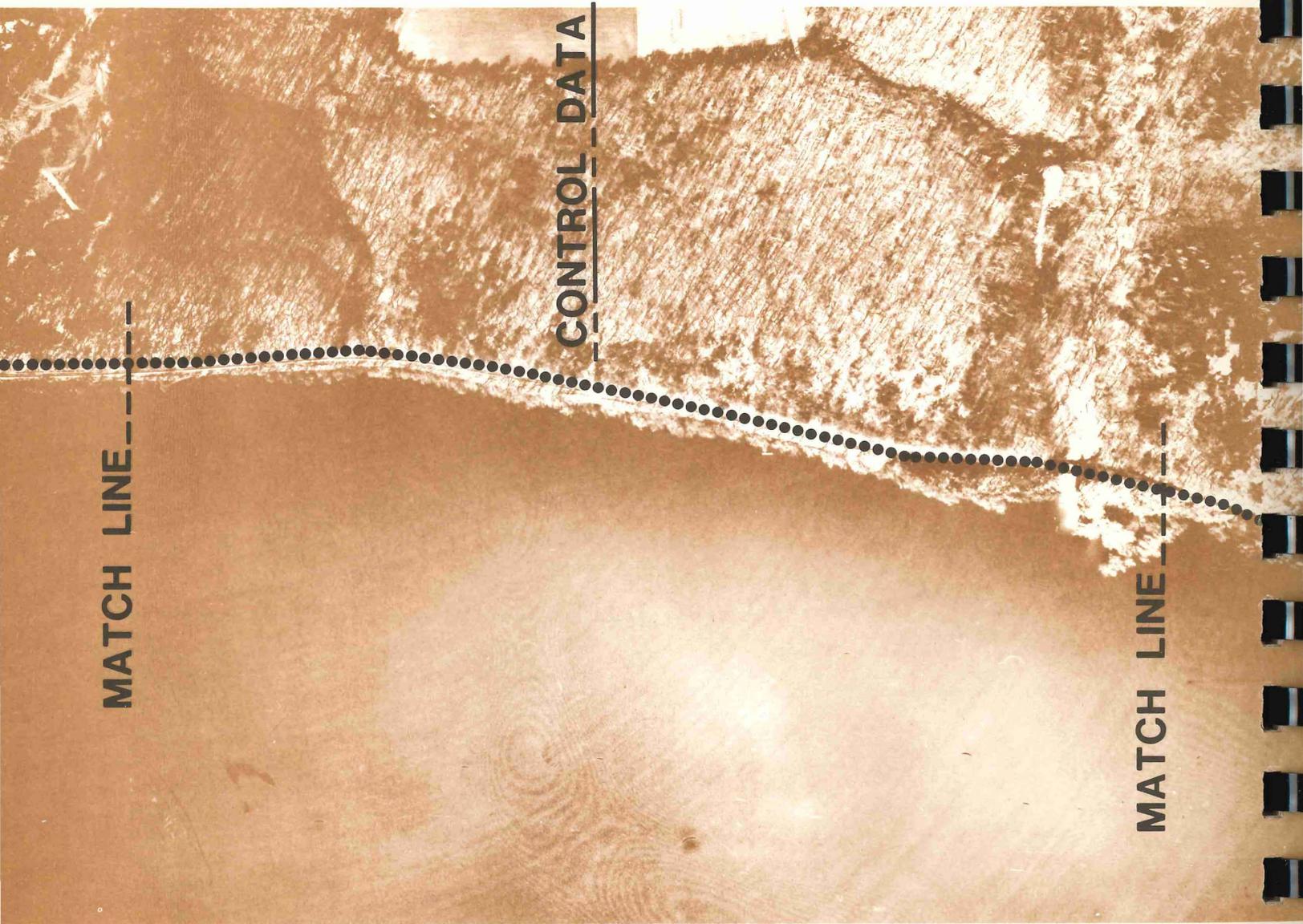
MATCH LINE

MATCH LINE

CONTROL DATA

MAP L

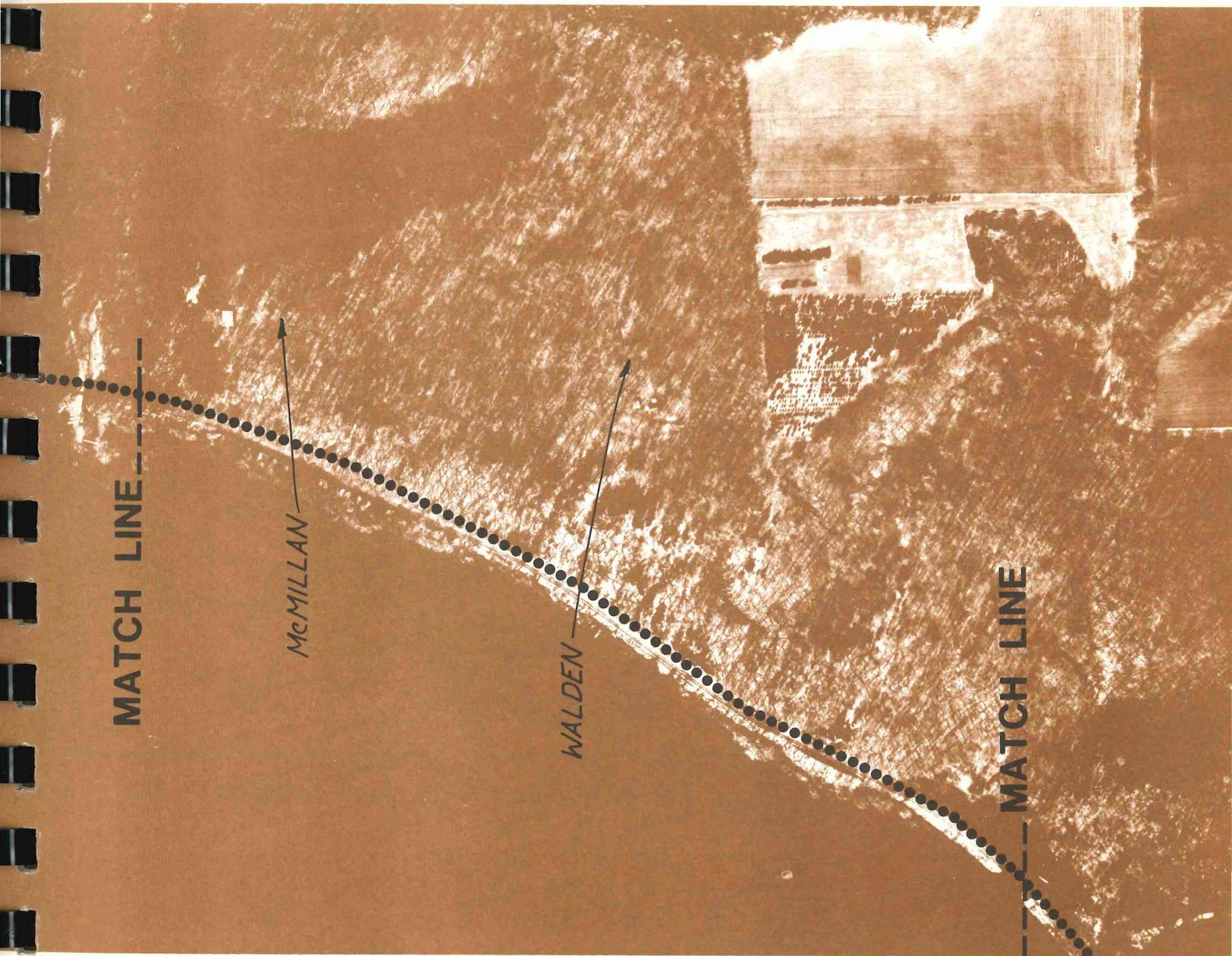
MAP M



MATCH LINE

CONTROL DATA

MATCH LINE



MATCH LINE

McMILLAN

WALDEN

MATCH LINE

MAP N

MAP O

ROAD ONLY ONE OF MANY ACCESSSES FOR
VANDALS FIRE, BEER PARTIES, ETC.

MARTIN R. HALEY III E. KELLOGG BLVD. ST. PAUL
55101

HAVE HAD VANDALISM A SUMMER HOME USED ON WEEKENDS
SO THERE IS NO ONE AROUND TO WATCH FOR FIRES - EASY PREY
FOR VANDALS - PROPERTY IS USED FOR BUSINESS WRITING -
NOISE WOULD BE A GREAT PROBLEM - PROPERTY WOULD LOSE
GREAT VALUE BECAUSE TRAIL WOULD CUT IT ALMOST IN HALF -
PROPERTY IS NEAR ROAD & INASMUCH AS SOMEONE IS NOT
THERE TO POLICE, PEOPLE WOULD BE CROSSING THE PRO-
PERTY TO ENTER OR LEAVE THE TRAIL. THE PROPERTY
IS ALREADY ABUSED IN THIS WAY. THE RIVER AL-
READY PROVIDES ACCESS TO THE AREA. AFTON STATE
PARK (1600 TO 1700 ACRES) AFFORDS THE SAME SCENIC
AREA TO PEOPLE NOW. THERE ALREADY IS AVAILABLE
THE AFTON-LAKELAND TRAIL FOR 'YOUR MASSES' TO
USE. WHY MORE? WHAT PROTECTION CAN BE GAUR-
ANTEED BY POLICEMAN. IT APPEARS THAT THE
LOCAL POLICE CANNOT NOW HANDLE WHAT IS
HAPPENING (BURGLARY, BEER PARTIES, ETC.)
HOW WILL THE FIRE DEPARTMENT (AND HOW
WILL IT BE DETERMINED WHO IS RESPON-
SIBLE) GET TO THE TRAIL WHEN IT IS
HEAVILY WOODED & UNACCESSABLE? HOW
LONG WILL IT TAKE TO GET FROM 0.0
TO 12.2 ON ANY PART OF IT? BEING THE
AREA IS SO WOODED & THERE WILL BE
SO MANY MORE PEOPLE THE POTENTIAL
HAZARD IS UNBELIEVABLE! WHO WILL
PICK UP THE TRASH LEFT BY THE
TRAILERS? 12 MILES IS A LONG TRAIL,
WITHOUT ANY ACCESS TO THE TRAIL

MATCH LINE

- 1. NO PROTECTION AGAINST FIRE FROM TRACKS
- 2. STATE WOULD HAVE TO PAY UPCHGE IN INSURANCE.
- 3. STATE WOULD HAVE TO BE RESPONSIBLE FOR LIABILITY FOR FIRE STARTED ON GRADE.
- 4. VANDALISM - EVEN WITH LIMITED ACCESS & KNOWLEDGE.

87th ST.

QUANT
AVE.

QUADRANT
AVE.

MATCH LINE

CONT.

WHAT WOULD BE THE DILEMMA OF THE PERSON WHO COULD NOT MAKE IT ALL THE WAY - HEART ATTACK, BLISTERS, EXHAUSTION & THE LIKE?

MATCH LINE

CONT.

- 5. NO POLICE PROTECTION
- 6. PROPERTY BELONGS TO ABUTTING LAND OWNERS NOT RAILROAD.
- 7. STATE & DNR SUBJECT TO LITIGATION ON ABOVE POINTS.
- 8. ACCESS TO RIVER AVAILABLE IN AFTON STATE PK TRAIL SYSTEM POSSIBLE &/OR AVAILABLE IN AFTON STATE PK FOR HIKING, XCOUNTRY SKIING, SNOWSHOEING & CONNECTION TO BIKE TRAIL IF NECESSARY.
- 9. NOISE IS A SEVERE PROBLEM.
- 10. READ MINN-WISC. BOUNDARY COMMISSION REPORT ON PROTECTION OF RIVER!!

SCHAFFER

KINNICKINNIC
SANDBAR

DAVIE'S AGAINST ANY TRAIL

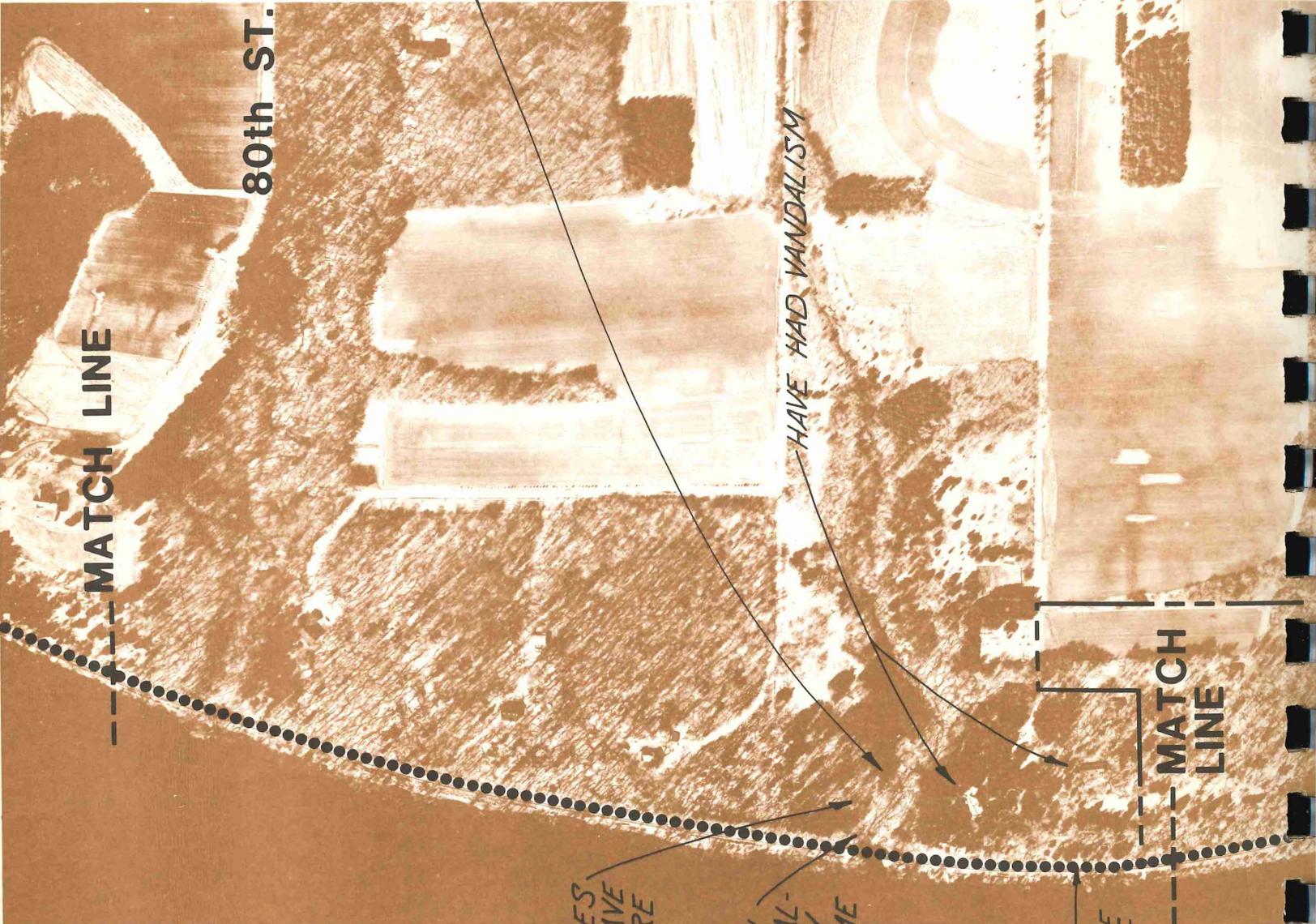
MARCIA ROBERT

87TH & QUANT. AVE. VANDALISM, NOISE, FIRE HAZARDS. NEED FOR MORE POLICE PROTECTION, DEVALUATION OF PROPERTY, EASY ACCESS FOR PUBLIC TO ENTER OUR PROPERTY; THERE IS NO PUBLIC ACCESS! MORE LACK OF PRIVACY IF TRAIL GOES IN

MATCH LINE

MAP P

MAP Q



MATCH LINE

80th ST.

NOT YEAR ROUND
HOUSES - HAVE NO
PROTECTION AGAINST
TRESPASSERS

HAVE HAD VANDALISM

MOTORCYCLES
ALREADY HAVE
ACCESS HERE

PUBLIC BEACH
LITTER VANDAL-
ISM. ALREADY
USED BY SOME
RIVER USERS
AS "LATRINE"

WALKWAY
DOWN TO EDGE
OF SHORELINE

MATCH LINE

MATCH
LINE

AFTON STATE PARK

KINKEAD'S &
MIKULAY'S
TOO MUCH UNDER-
BRUSH - HEAVILY
WOODED FIRE
HAZARD - STEEP
BANK BUT EASY
ACCESS TO PROPER-
TY & HOMES

MILLS

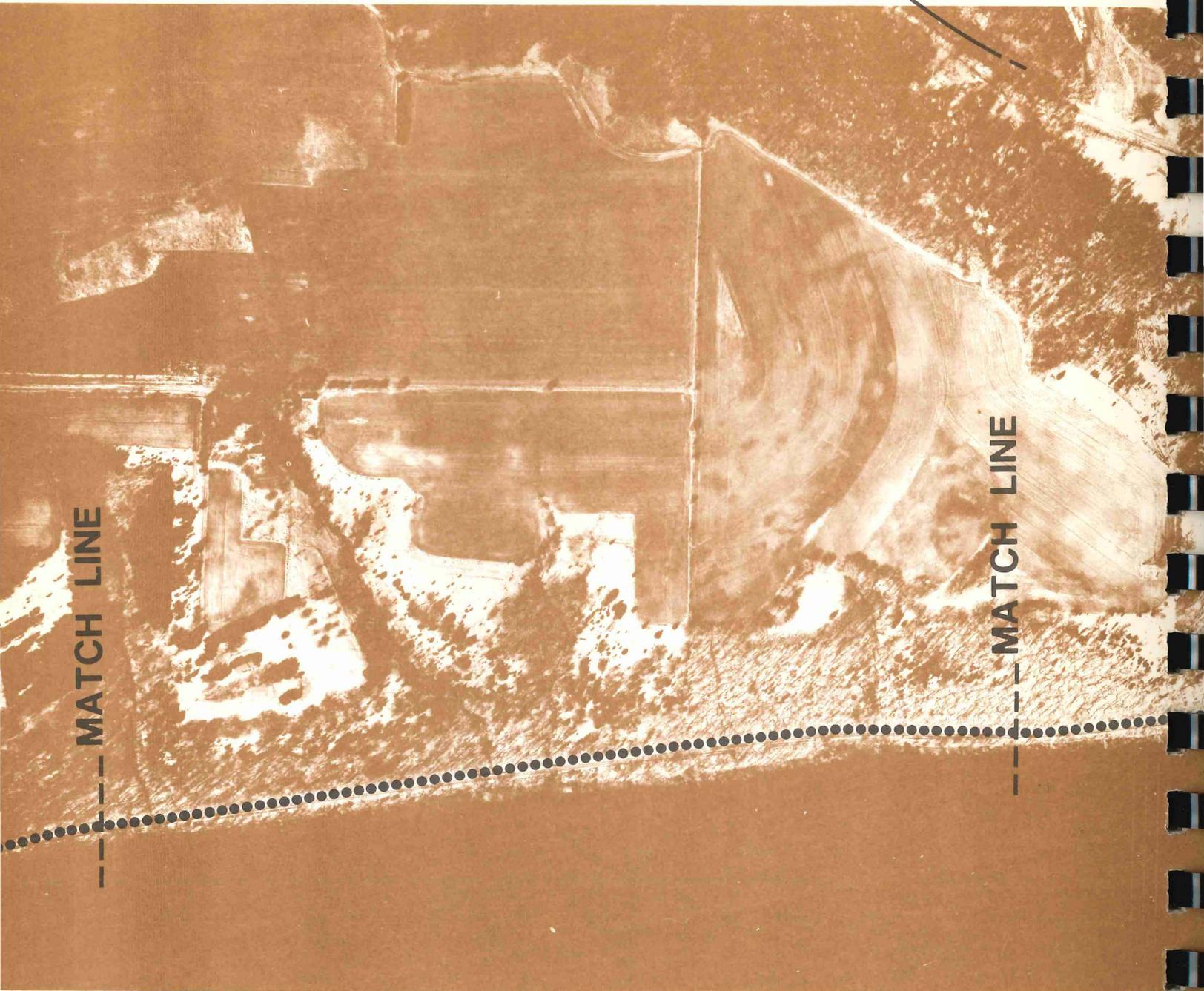
SAME AS SCHRADER PLUS
WE HAVE A BENCH ON THE
OTHER SIDE OF THE RR
TRACKS - HOW DO WE KEEP
IT PRIVATE! WE HAVE A GOOD
PATH TO OUR HOUSE - HOW DO
WE KEEP PEOPLE OFF?
WHERE ARE YOU GOING TO
PARK ALL THE CARS? HOW WILL
PEOPLE GET OFF THE TRAIL
THAT DON'T WANT TO WALK 12
MILES - THRU PRIVATE
PROPERTY?

QUANT
AVE.

SCHRADER
MORE VANDALISM
DANGER OF FIRE, YOU
WOULD HAVE TO MAIN-
TAIN A FIRE BOAT SUCH
AS NYC HAS! LITTER,
TOO CROWDED - WILL
SPOIL NATURAL BEAUTY

MATCH LINE

MAP R



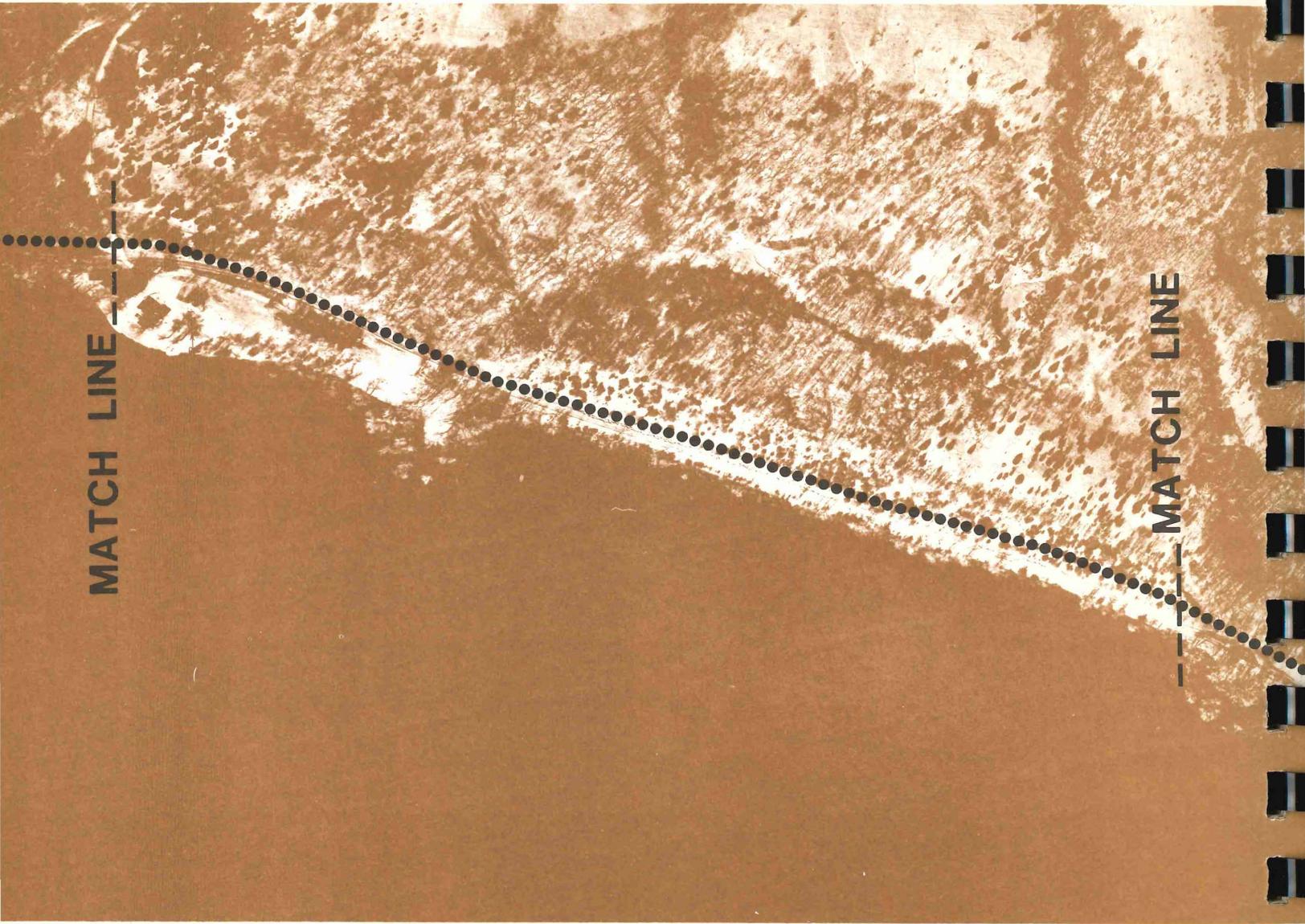
MAP S

AFTON ALPS
SKI AREA

MATCH LINE

MATCH LINE

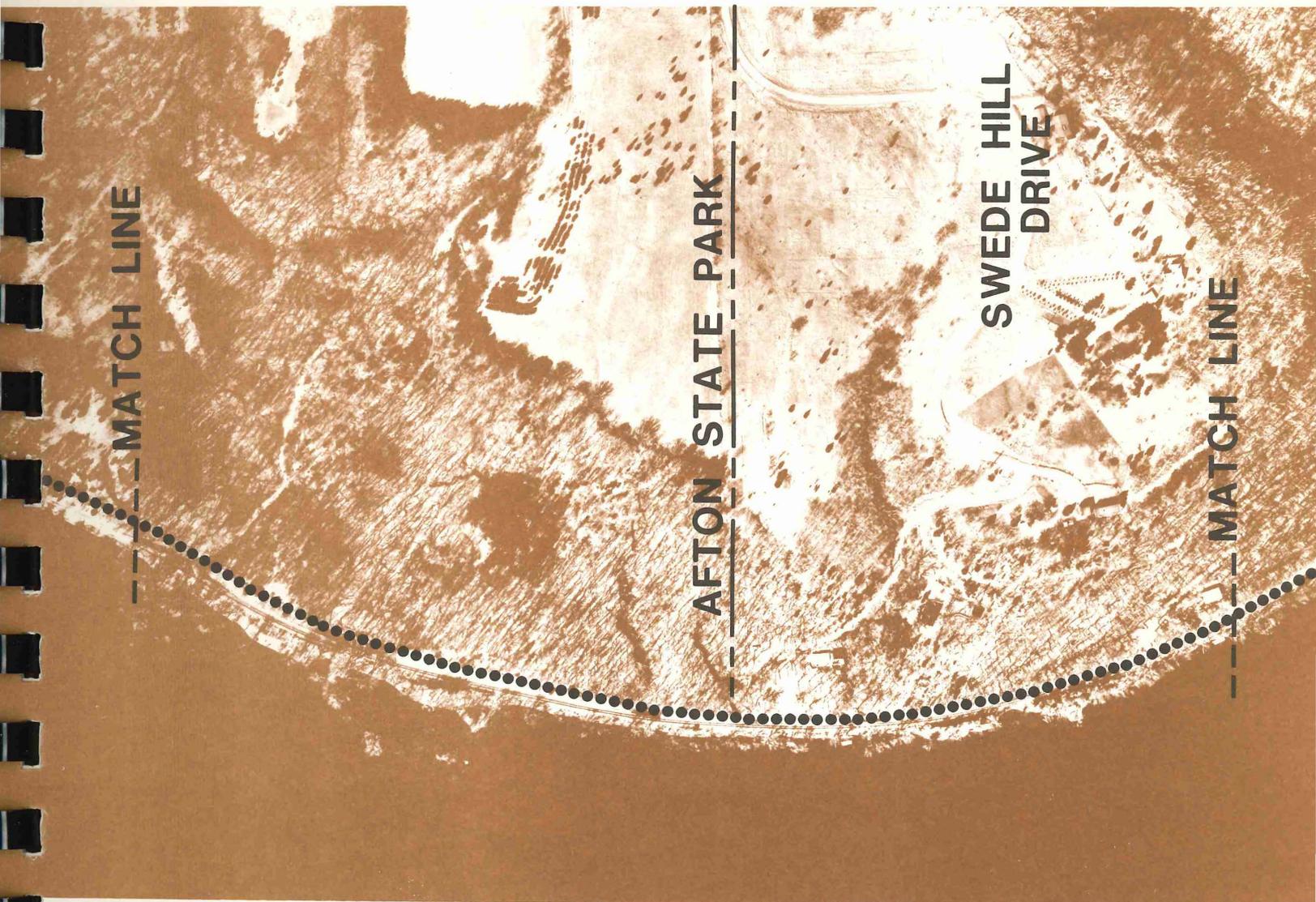
MAP T



MATCH LINE

MATCH LINE

MAP U



MATCH LINE

AFTON STATE PARK

SWEDE HILL
DRIVE

MATCH LINE

MAP W

MATCH LINE

- D & R YUREK
1. PARKING - NOW - NO MORE
 2. TRESPASSING ON BEACH & YARD
 3. VANDALISM - EXISTING NOW - NO MORE
 4. DECREASED PROPERTY VALUE BY 1/2
 5. LITTER EXISTING NOW
 6. FINE WITHOUT ACCESS
 7. POLICE AREN'T ADEQUATE
 8. ANOTHER ACCESS TO PARK WHEN ONLY ONE ACCESS IS AUTHORIZED FROM WEST
 9. CONTROL OF AFTON S.P. WILL BE LOST

RIVER ROAD

1. PARKING
2. VANDALISM
3. ROAD INSUFFICIENT TO TAKE TRAFFIC AT TRAILS END.
4. OPENS PROPERTY - ESPECIALLY DOCKS, MOTORS ETC TO VANDALISM AND THEFT
5. PARK IS NOT FINISHED - COULD NOT BE A PARKING AREA FOR TRAIL
6. LITTER CONTROL IMPOSSIBLE
7. NO POLICE PROTECTION
8. DECREASED VALUE

OWN TWO PIECES OF PROPERTY

MATCH LINE



MATCH LINE

NO PARKING

MAP X





STATE OF
MINNESOTA
DEPARTMENT OF NATURAL RESOURCES

CENTENNIAL OFFICE BUILDING • ST. PAUL, MINNESOTA • 55155

DNR INFORMATION
(612) 296-6157

July 17, 1978

Jack Lynch
Bather, Ringrose and Wolsfeld, Inc.
7101 York Ave., S.
Minneapolis, Minnesota

Dear Jack:

As you are aware, the Minnesota Department of Natural Resources, and the consulting firm of Bather, Ringrose, Wolsfeld, Jarvis, Gardner, Inc., are developing a management plan for a proposed trail in Washington County. The trail is proposed for an abandoned railroad right-of-way on the St. Croix River between Afton and Point Douglas.

In order to develop the management plan, an advisory task force is being set up. The purpose of this task force as defined by law, is for members of the public to render advice on a specific and clearly defined subject. I am requesting that you serve on this task force.

The task force will not decide whether or not a trail will be developed on the abandoned railroad grade. That decision is not within the scope of the task force responsibilities as defined by law. The management plan which the task force will help develop, however, will assist the DNR in making a decision on the proposed trail project.

The committee's primary charge throughout the planning process will be - "If there is to be a trail, then we and the consultant will help the DNR arrive at the best alternative which addresses our concerns, while remaining environmentally sound." The task force will consider alternatives, and one of those may be to refrain from developing the trail.

The group will meet at least four times, and will visit the site of the proposed trail to get a good understanding of all aspects of it. The plan is scheduled for completion in early September.



The mission of the task force is extremely important in developing the management plan. There is a notice enclosed informing you of the first meeting. Thank you very much for your cooperation.

Sincerely,

A handwritten signature in cursive script that reads "Joseph N. Alexander". The signature is written in dark ink and is positioned above the typed name.

Joseph Alexander
Acting Commissioner of Natural Resources

JA/la
Enclosure



*Office Memorandum*DEPARTMENT Natural Resources-Metro Forestry

TO : Bill Morrissey
Trail Planning Supervisor

DATE: July 6, 1978

FROM : Larry Westerberg
Hastings District Forester

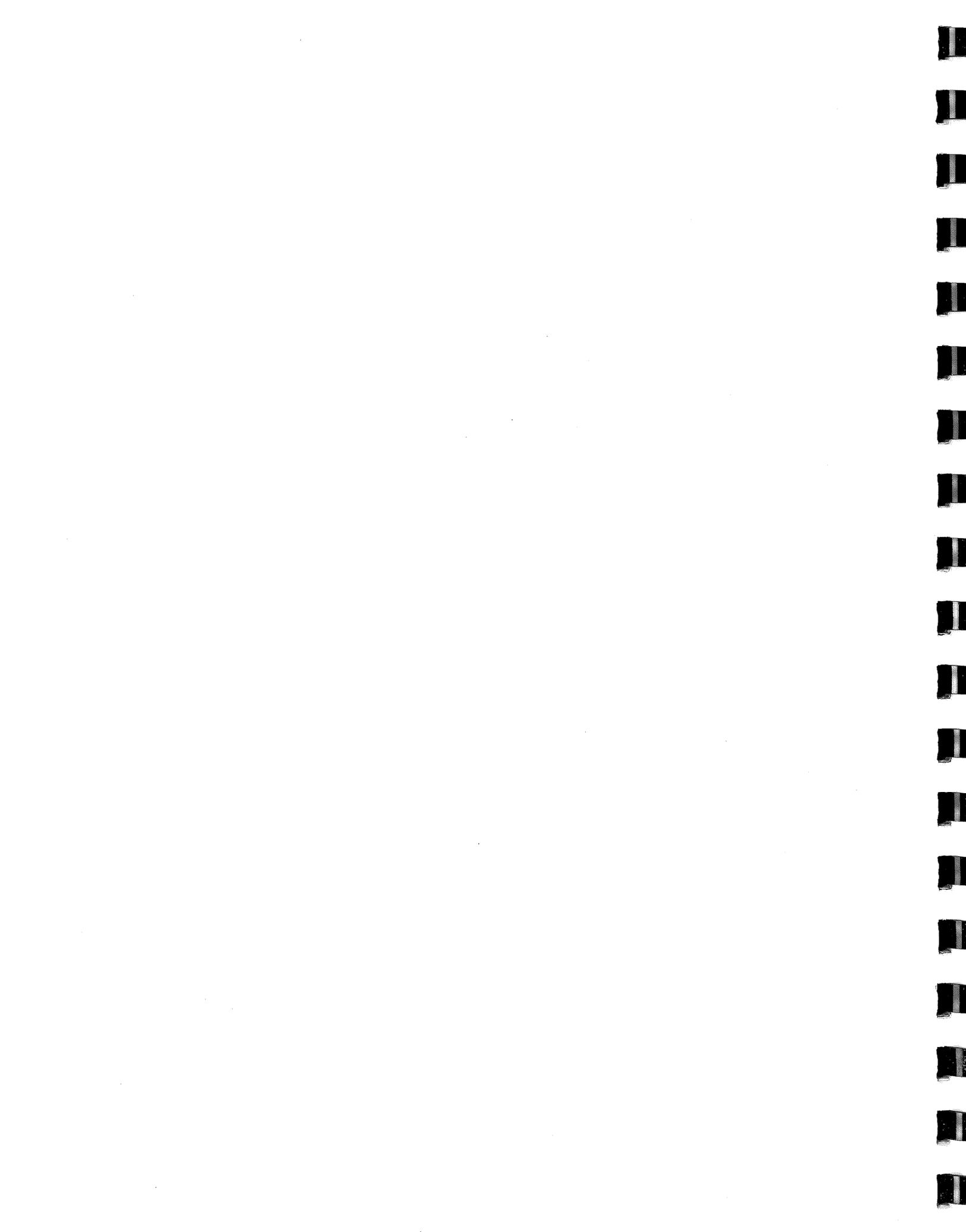
SUBJECT: Wildfire Potential along Proposed St. Croix Trail

The area involved is from Bayport southerly to highway 61 by Hastings and can be divided into two rather distinct areas; from Bayport to Afton the terrain is relatively level and built up and from Afton to highway 61 where the terrain is steep, wooded and quite wild. The former area should pose little danger in that the area is highly accessible and most of the discussion in this report will deal with the latter area.

The vegetative cover along the railroad right-of-way is mainly mixed hardwoods with highly scattered areas of grass and red cedar. The few grass areas are generally by homes that are close to the track. Because of the scenic river designation and the end of right-of-way maintenance the tendency will be to more hardwoods and less grass.

Hardwood stands have a low fire danger rating for several reasons:

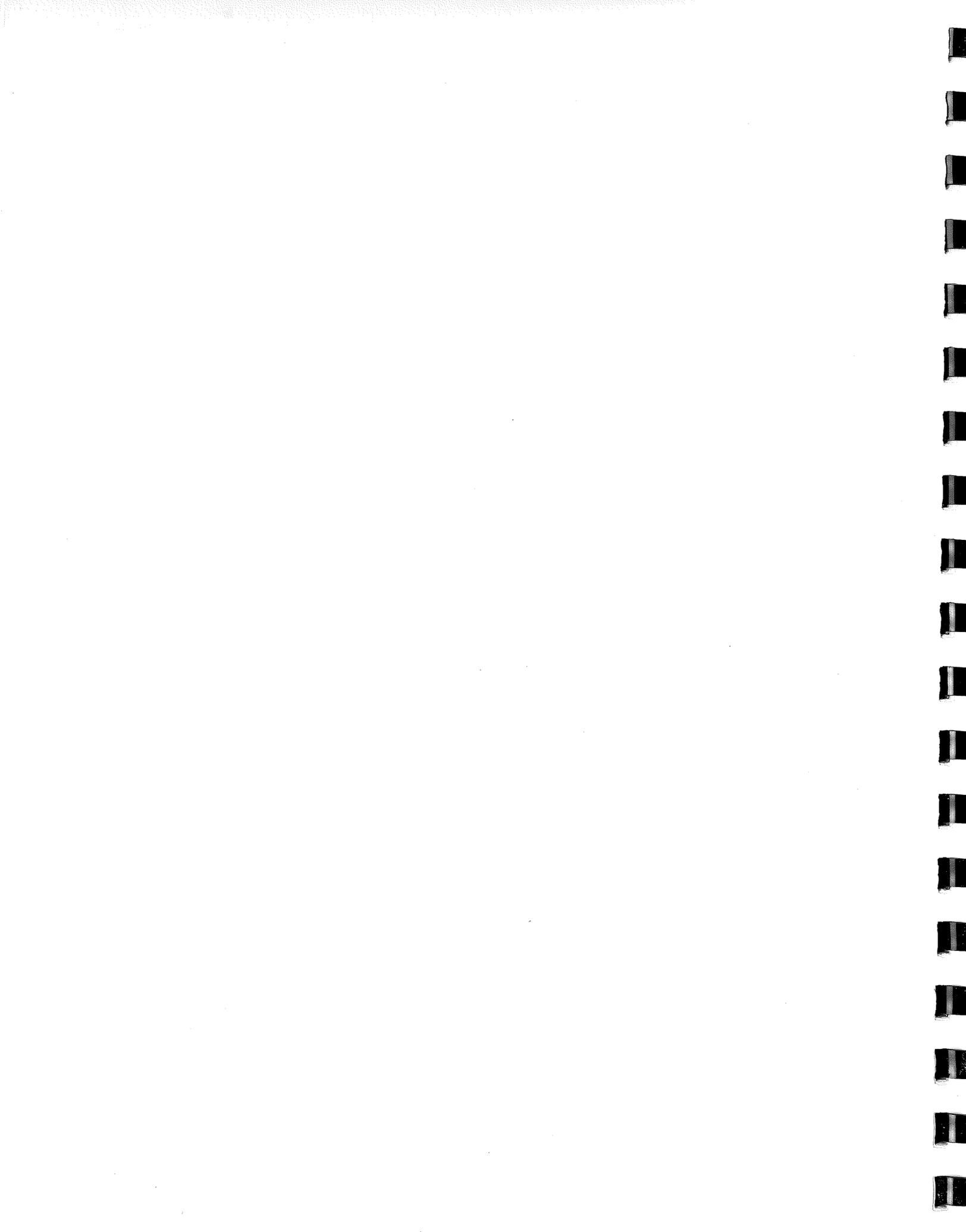
1. They do not have volatile resins in the leaves like conifers do.
2. The crowns are less continuous and do not carry a crown fire very well if at all.
3. The fuel ladder necessary to get a crown fire going is usually not present.
4. The soils are generally better and any ground vegetation is more lush and moist.



Hardwoods are being planted to break up large pine areas to create fuel breaks. If a crown fire gets started it will drop to the ground when it hits the hardwoods and be more easily put out. Except for the stretch from highway 61 to Point Douglas the slopes along the proposed trail are generally east facing. This slope is much cooler and more moist than south or west slopes because it is shaded by the time the sun gets up high and is exposed for a shorter time also.

Fire fighting along the proposed trail may be easier than at present because access will be improved. At present it is very difficult to drive trucks on the railroad but the trail will provide an excellent access road. Hand tools are the most efficient method of fire fighting on the steep slopes. In the more level areas north of Afton, hose and nozzles can be used much easier than on steep slopes. The most common fire in this area is a surface fire with rakes and shovels being an excellent means of putting out this type of fire. The main fuel is leaves and ground litter and these must be turned over anyway if water is to be effective. Water should be used whenever possible but too often it is thought of as being the only way to fight fire. Mop up is very important and water should be used along with hand tools to make sure all the heavier fuels are out before leaving. Fires that start between the lake and track generally will not cross the track because they do not have enough momentum. If fires cross the track it is usually due to an extreme fire condition. If the proposed trail is put in and these extreme conditions occur the trail can be closed. Another possibility is to post the current fire danger at trail access points and key permitted activities to the fire danger rating.

In the past fire has not been a problem along the railroad right-of-way. Hastings fire department has had 9 fires in the past 5 years (1973-1977) along the stretch from highway 61 to 60th Street North. Lower St. Croix Valley fire department did not report any unusual problems along the trackage and reported one fire along the bicycle path between Afton and Lakeland. This is not saying fire cannot become a problem but in the areas of the seven county metro area that DNR has gotten fire reports from railroads account for 38% of the fires and "children" only 15%. Cottage Grove has slightly more than double "children" caused fires over railroad fires but most of these occur near the child's home or play area.

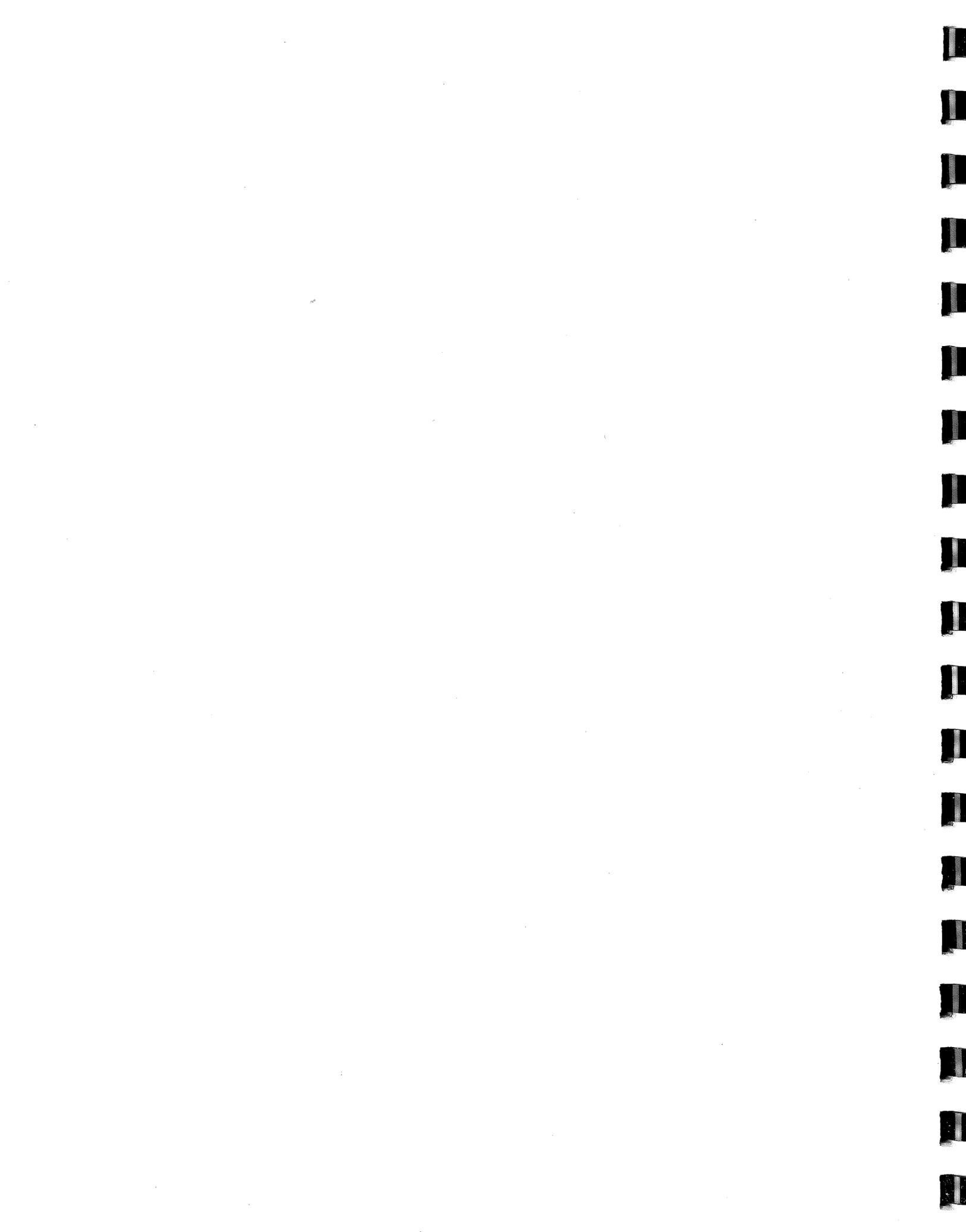


In summary, I do not think that creating a trail along the railroad right-of-way will significantly change the fire occurrence from what it is now. I recommend that the following precautions be taken:

1. Maintenance crews and vehicles be equipped with some fire equipment.
2. These crews should have radio communication to allow contact with headquarters.
3. The trail should be maintained so it is drivable by emergency vehicles. As a minimum grass fire trucks and preferably pumpers and tankers also.
4. Fire danger signs be posted at access points.
5. During periods of extreme fire danger the trail be closed to use, and possibly the prohibition of smoking on the trail during periods of high fire danger.
6. Probably the most important item, local residents take an active part in preventing fires.

LEH:bb

cc: Bill Weir
Larry Seymour
Darwin Anderson



STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES

Rules and Regulations for
State Recreational Trails

NR 20—State Recreational Trails

(a) PURPOSE

It is the purpose of these statewide rules and regulations to provide for public use of designated state recreational trails while protecting the quality of the trail environment to promote long term trail use and enjoyment.

(b) JURISDICTION AND SCOPE

These rules and regulations are promulgated under the authority of Minnesota Statutes, Section 84.03, and Minnesota Statutes, Section 84.86, and apply to state recreational trails, which are (aa) those trails established by the Legislature in Minnesota Statutes, Section 85.015 when designated by the Commissioner of Natural Resources by order filed with the Secretary of State; and (bb) those other trails designated by the Commissioner by order filed with the Secretary of State after a public hearing conducted pursuant to Minnesota Statutes, Chapter 15, in a county through which the proposed trail passes. These rules and regulations shall not apply to any person lawfully engaged in the performance of his duties in the development, maintenance and operation of such trails, including but not limited to, the Commissioner of Natural Resources, his agents, employees, those persons operating under contract with the Department of Natural Resources and law enforcement officers.

(c) SEVERABILITY

The provisions of these rules and regulations shall be severable, and the invalidity of any paragraph, subparagraph, or subdivision thereof shall not make void any other paragraph, subparagraph, subdivision or any other part.

(d) DEFINITIONS

For the purpose of these rules and regulations, the terms defined in this section have the meanings given them.

- (1) "Bicycle" means any land based vehicle powered by human muscle.
- (2) "Commissioner" means the Commissioner of Natural Resources, State of Minnesota, acting directly or through his authorized agent.
- (3) "Drug" means any drug, controlled substance, or immediate precursor found in Schedules I through V of Minnesota Statutes, Section 152.02, and marijuana, as defined in Minnesota Statutes, Section 152.01, Subd. 9.
- (4) "Horseback riding" includes all modes of human travel produced at least in part by non-human muscle.
- (5) "Intoxicating liquor" for the purposes of these rules means liquors which are intoxicating pursuant to Minnesota Statutes, Section 340.07, and malt liquor containing not less than one-half of one percent alcohol by volume nor more than 3.2% alcohol by weight.
- (6) "Motor vehicle" means any self-propelled vehicle and any vehicle propelled or drawn by a self-propelled vehicle including, but not limited to, automobiles, trucks, dune buggies, mini-bikes, motorcycles, trail bikes and all terrain vehicles (ATV's).
- (7) "Person" means any individual, partnership, corporation or association.
- (8) "Snowmobile" means any self-propelled vehicle designed for travel on snow or ice and steered by skis or runners.
- (9) "Special event" means an organized rally, race, exhibit, demonstration or other similar activity of limited duration which is conducted according to a prearranged schedule and in which general public interest is manifested.
- (10) "Trail" means all of that land contained within the area designated as a state recreational trail by the Commissioner.
- (11) "Treadway" means that part of the trail constructed for travel.

(e) USE OF A TRAIL

- (1) Trail Uses
Subject to the limitations imposed by these regulations and other duly enacted statutes, rules and ordinances, or unless specifically prohibited by the Commissioner, trails may be used for snowmobiling and all non-motorized forms of recreation, including but not limited to hiking, bicycling, horseback riding, snowshoeing, cross-country skiing, camping and picnicking.
 - (2) Motor vehicles
No motor vehicle, other than a snowmobile, shall be operated within a trail, except upon a legal road or highway as those terms are defined in Minnesota Statutes, Section 160.02, Subdivision 7, and except as authorized by the Commissioner.
 - (3) Snowmobiles
No snowmobile shall be operated within a trail except upon treadways designated for such use and under conditions considered adequate for the protection of the trail by the Commissioner.
 - (4) Horses
No one shall ride, lead or drive a horse or other beast of burden upon a trail except upon treadways designated for such use.
 - (5) Trail hours
Any specific use of a trail may be limited to hours designated by the Commissioner and any use in violation of such limitation is unlawful.
 - (6) Traffic control
 - (aa) Trail signs shall be obeyed.
 - (bb) When on a trail treadway, all trail users must stay on the right half of the treadway when meeting or being passed by another trail user.
 - (cc) When passing another trail user traveling in the same direction a trail user must pass on the left half of the treadway and may pass only when such left half is clearly visible and is free of oncoming traffic for a sufficient distance ahead to permit such overtaking and passing to be completely made without interfering with the safety of any trail user approaching from the opposite direction or any trail user overtaken.
 - (dd) Any trail user who is about to enter onto or cross a trail treadway, shall yield the right of way to any trail user already on the treadway to be entered or crossed.
 - (ee) When at approximately the same time, two trail users are about to enter an otherwise unmarked treadway intersection from different treadways or are approaching an otherwise unmarked merger of two treadways from any two directions, the trail user on the left shall yield the right-of-way to the trail user on the right.
 - (7) Special events
No special events shall be held within a trail except with a written permit of the Commissioner previously obtained. Such permit may exempt the holder and other participants from the operation of any of the rules contained herein, and may be revoked or suspended by the Commissioner at any time.
- (f) USE OF CAMPING AND REST AREAS
- (1) Camping
 - (aa) Overnight camping is restricted to designated camping areas.
 - (bb) The duration of the stay of any person at said areas shall be no more than two consecutive nights except where otherwise posted.
 - (cc) A fee may be prescribed by order of the Commissioner for use of the camping areas and facilities, and if such a fee is prescribed, it shall be paid before the area or facility is used.
 - (dd) There shall be no digging or trenching within the camping or rest areas.
 - (ee) No persons or group of persons shall unreasonably exclude others from campgrounds or rest areas.

(2) Fires
It is unlawful to build a fire within a trail except in a fireplace or a fire ring provided for that purpose. However, portable gas or liquid fueled camp stoves may be used within a camping or rest area if such use does not create a hazard or danger to the trail or to others.

(g) HUNTING AND TRAPPING

- (1) Hunting
No firearm or bow and arrow shall be discharged within the trail at any time, except for the purpose of lawful hunting during the period from September 15th to March 30th only. No rifle, shotgun with slug, or bow and arrow shall be discharged upon, over or across the trail treadway at any time.
- (2) Trapping
The Commissioner may forbid the placement of any manner of animal trap in any area of a trail by order.

(h) PROTECTING THE TRAIL

- (1) Environment
No person shall disturb, destroy, injure, damage or remove any property within trails including but not limited to vegetation, ruins, wildlife, geological formations, signs, or facilities except edible fruit and wild animals legally taken under the provisions of Section (g) subdivisions (1) and (2) of these rules, and vegetation unavoidably damaged or destroyed by the ordinary uses of the trail as specifically permitted by these regulations. Collections for scientific and educational purposes may be made with the written consent of the Commissioner previously obtained.
- (2) Bill posting
No persons shall post, paste, fasten, paint or affix any placard, bill, notice or sign upon any structure, tree, stone, fence or enclosure in a trail.
- (3) Obstructions
No person shall place or cause to remain within any trail, any snowmobile, trailer, horse, bicycle or other object so as to obstruct the free use and enjoyment of said trail. Any such obstruction shall be removed at the owners expense if not claimed and payment of expenses offered within a reasonable time, which in no case shall be more than thirty days; it shall be disposed of according to the provisions of Minnesota Statutes, Section 16.0231 concerning the disposal of lost or abandoned property.
- (4) Refuse
No person shall burn or dispose of garbage, refuse, litter or trash within a trail except in receptacles provided for that purpose.

(i) PROTECTING OTHER USERS

- (1) Personal conduct
Within a trail, no person, knowing or having reasonable grounds to know that it will, or will tend to, alarm, anger or disturb others, or provoke an assault, shall breach the peace by engaging in the following conduct:
 - (aa) Brawling, fighting or other violent conduct directed toward another; or
 - (bb) Offensive, obscene, or abusive language or boisterous and noisy conduct which might be reasonably expected to arouse alarm, anger or resentment in others.
- (2) Intoxication
No person while within a trail shall be in a state of intoxication brought about by the consumption of intoxicating liquor.
- (3) Drugs
No person shall use, be in the possession of, or be under the influence of drugs within a trail unless such use, possession or influence is pursuant to and in compliance with a prescription from a licensed physician.
- (4) Pets
No persons shall allow any pet animal to be unrestrained or unattended except dogs used for hunting during legal hunting seasons in accordance with Section (g) paragraph 1 of these rules. Such pets shall be restrained by a leash not exceeding six feet.

(5) Peddling

No person shall peddle or solicit business of any nature, within a trail, or use any of the lands or structures as a base for commercial operations.

(6) Safety

While being ridden or operated within a trail, horses, bicycles and snowmobiles must be under the control of the operator at all times.

(j) ADJACENT LAND

- (1) Access
A trail shall not be used as an access to private lands without the consent of the landowner, lessee, occupant or his agent.
- (2) Posting
Failure to post private lands does not imply such consent for trail users.

(k) OTHER LAWS

- (1) Safety regulations
All uses of trails will be subject to:
 - (aa) Commissioner's Orders;
 - (bb) Snowmobile rules, regulations and safety laws; and
 - (cc) Bicycle rules, regulations and state laws.
- (2) Conflict with other laws
 - (aa) Each component of the designated State Recreational Trail System shall be subject to the provisions of these rules and regulations, provided that in the event of conflict with some other law, rule or regulation of this state, the more restrictive provision will apply.
 - (bb) No regulation or ordinance adopted by a local unit of government, may be inconsistent with these rules and regulations, except that local regulations or ordinances concerning the use of firearms, bows and arrows, and traps may be more restrictive than these rules and regulations.

(l) SUSPENSION OF RULES

The Commissioner may provide exceptions to the general rules for a specific trail by order filed with the Secretary of State, if such exceptions authorize activities which are not inconsistent with the purposes for which the trail is established or better serve the public interest.

(m) PENALTY

Any person who shall violate any rules promulgated herein shall be guilty of a misdemeanor and subject to arrest.

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