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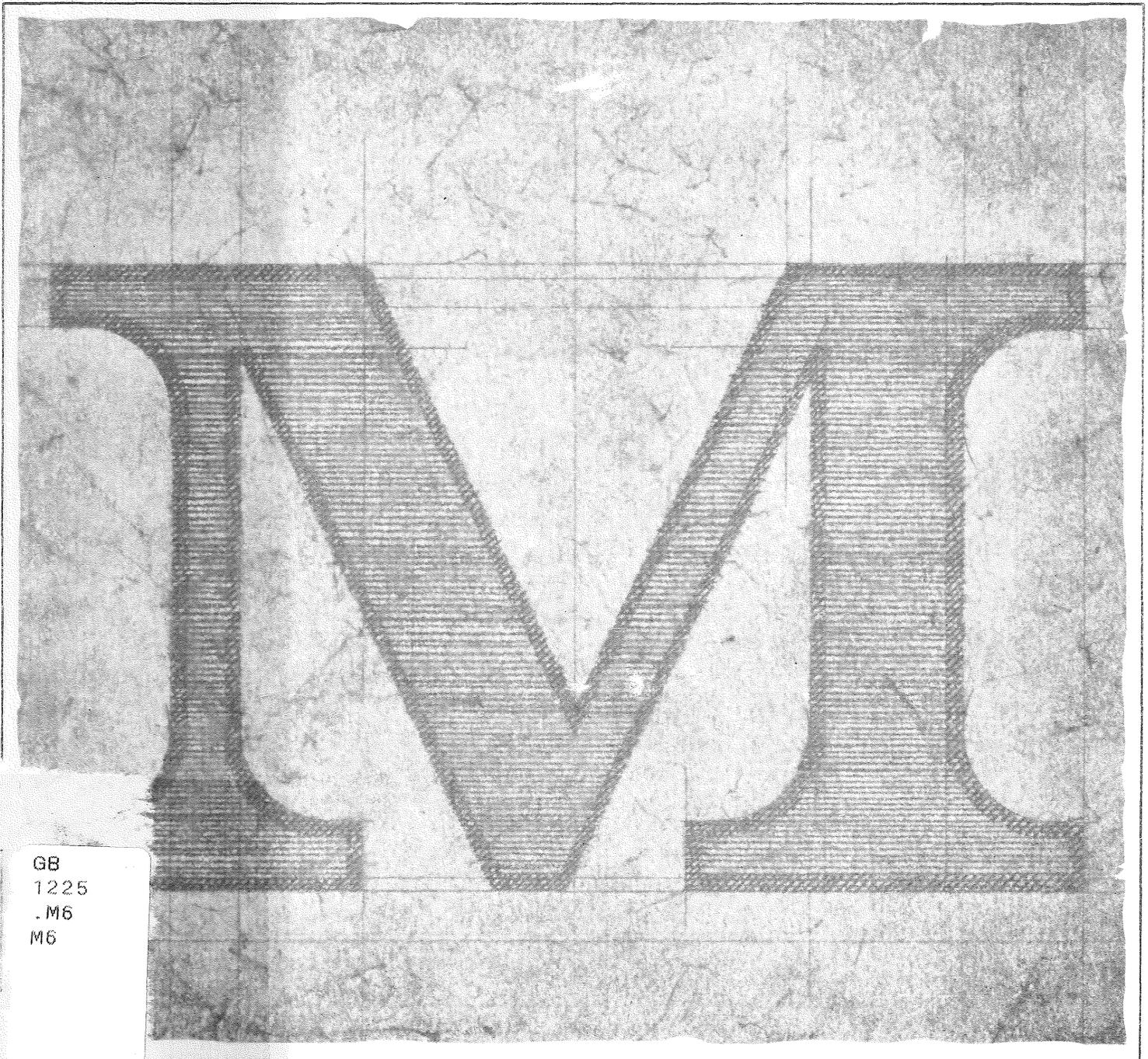
a management plan for the
MISSISSIPPI RIVER

st. cloud to anoka

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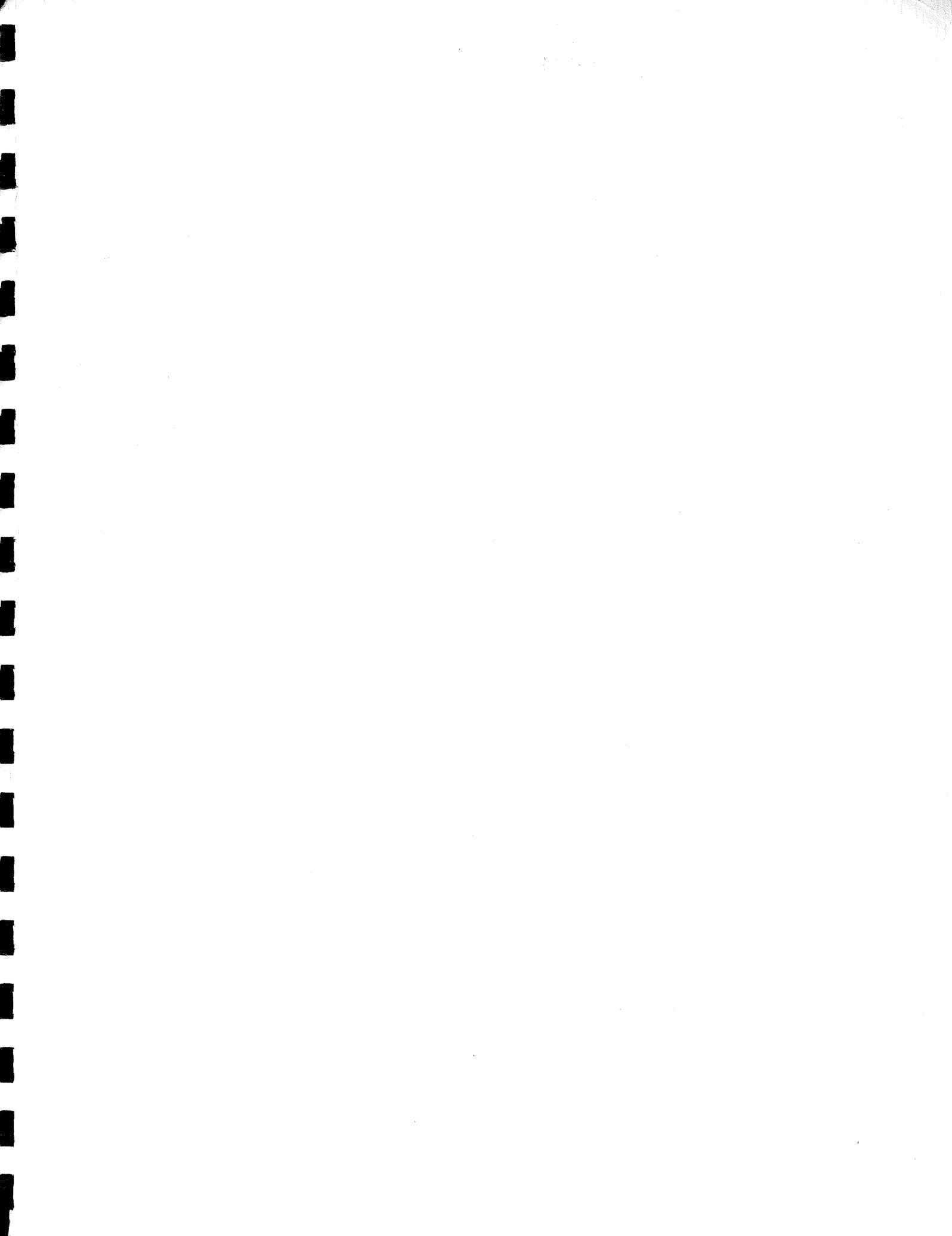
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INTRODUCTION

This proposed management plan for the Mississippi Recreational River has been prepared in accordance with Minn. Stats. 104.35 and the Statewide Rules and Regulations relating to the Wild, Scenic and Recreational Rivers system. As specified in Minn. Regs. NR 78 (g) (2), the management plan includes:

- a) The proposed classification of the river or appropriate segments.
- b) The proposed land use district boundaries which shall not exceed 320 acres per each mile of river on both sides (not each side) of the river.
- c) The proposed methods for preserving the river and its adjacent lands.
- d) The proposed regulations for local land use control.
- e) The proposed regulations, if any, for water surface use of the river.
- f) The proposed plan for recreational management within the land use district.
- g) The proposed plan for administration of the management plan.

If the Mississippi River between St. Cloud and Anoka is designated as a State Scenic and Recreational River, the final management plan would consist of:

- a) the rules and regulations,
- b) the land management maps,
- c) recreation management maps,
- d) recreation site typicals, and
- e) the land use district and acquisition acreages

The final management plan would then be reprinted and made available from the Documents Section, 140 Centennial Building, St. Paul, MN 55155.

Copies of the Statewide Rules and Regulations relating to the Wild, Scenic and Recreational Rivers System are also available from the Documents Section.

In addition to the management plan, this report includes a summary of how this segment of the Mississippi River between St. Cloud and Anoka meets the criteria necessary for inclusion in the Wild, Scenic, and Recreational Rivers System, an analysis of the physical and social characteristics of the area and information on related programs and agencies.

The proposed management plan has been prepared in final draft form, as it would appear if the river were designated. However, the plan is subject to change based on public input received from the public informational meetings and the preparation of the "findings of fact" from the public hearings to be conducted in the county seat of each affected county.

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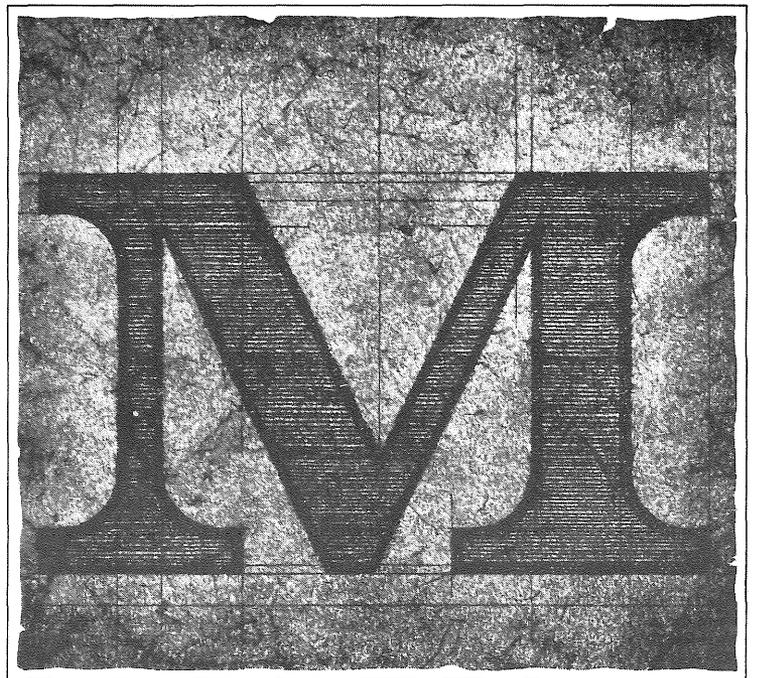
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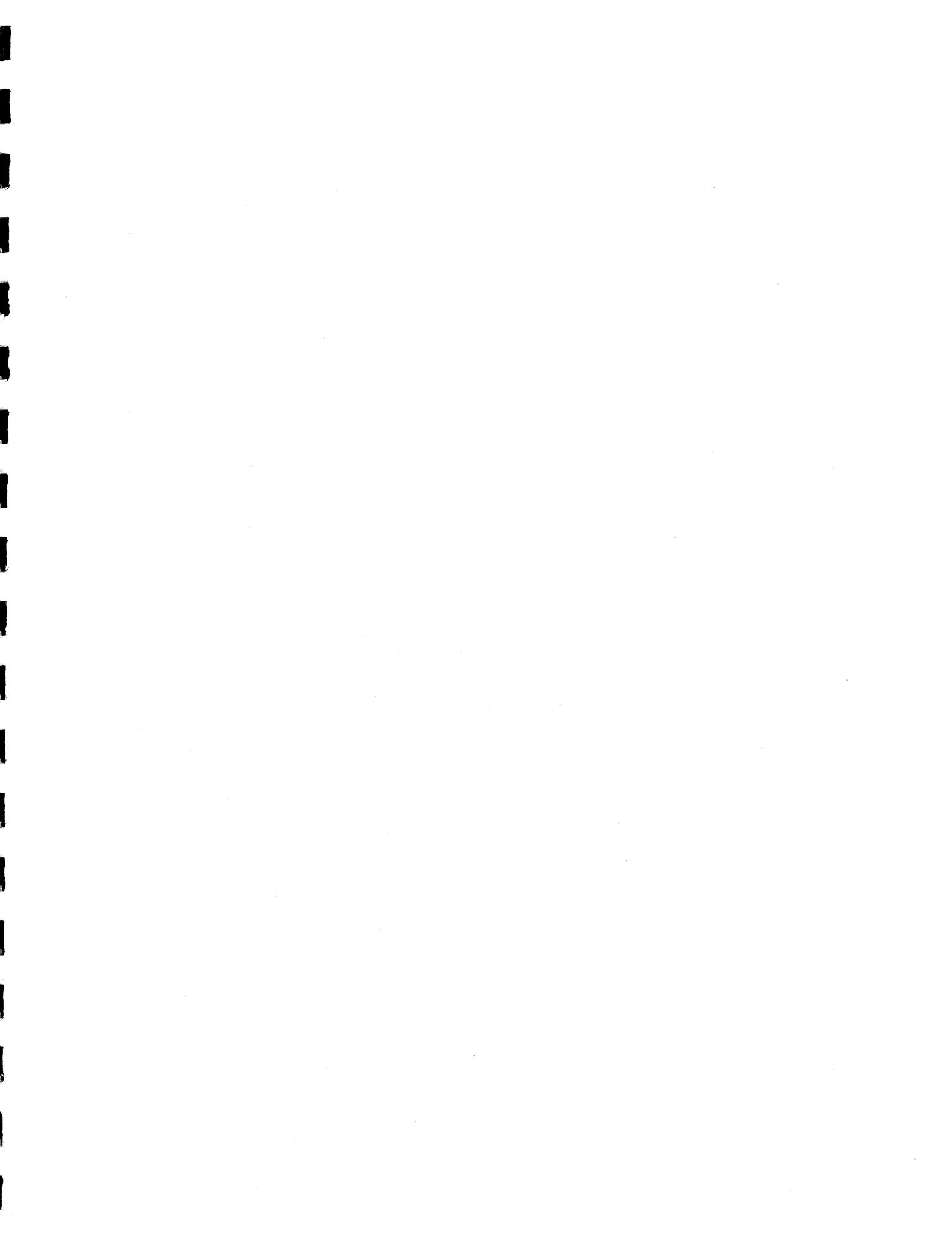
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**MANAGEMENT
PLAN**





SUMMARY

This report includes an analysis and management plan for the 55 mile segment of the Mississippi River between St. Cloud and Anoka. The management plan portion of this report has been prepared pursuant to Minn. Stats., Section 104.35 (1974), for designation of the Mississippi River (St. Cloud to Anoka) as a component of the Minnesota Wild, Scenic and Recreational Rivers System. The management plan proposes that the portion of the Mississippi River from the Northern States Power Company (NSP) dam at St. Cloud to State Highway #24 bridge crossing at Clearwater, be designated as a Scenic River; and that the portion of the Mississippi River from the State Highway #24 bridge crossing to the State Highways #52 and #169 bridge at Anoka be designated as a Recreational River.

Specific management regulations and recommendations are contained in the management plan section of this report. In addition, land use controls and other management policies and regulations are contained in Minn. Regs. NR 78-81 (Wild, Scenic and Recreational Rivers System). Any related state regulations which are recommended, are referenced in this report/management plan.

STUDY CONCLUSIONS

The Wild and Scenic Rivers Act, Chapter 271, Section 3, Subdivision 1, states that: "The whole or a segment of any river and its adjacent lands in this state that possess outstanding scenic, recreational, natural, historical, scientific or other similar values shall be eligible for inclusion within the Minnesota Wild and Scenic Rivers System."

It is our finding that the portion of the Mississippi River described in the preceding summary, and its adjacent lands, possess a number of outstanding values referred to in Minn. Stats., Section 104.32. A brief description of these outstanding amenities is provided below.

Historical

The Mississippi River between St. Cloud and Anoka has a rich historical heritage. Reference to historical events, people, and places along the river are contained in innumerable sources. A complete and thorough history of the river in the management plan area could well occupy a large volume in itself. The following brief account may serve to indicate the richness and scope of this historical resource. A more detailed description is provided in the "History" section of the Analysis.



Before the coming of the white man to the Upper Mississippi area, it was the home of several Indian nations including the Cheyenne and later the Dakota and Ojibway. The Indians, like the later white settlers, used the river as a water highway, hunting grounds, and place for settlement. It is not surprising that the Mississippi was often the scene of conflict between the tribes, particularly the Dakota and Ojibway.

The first white men to enter the area were trappers, traders, and explorers. Numerous trading posts were built between what are now the location of St. Cloud and Anoka. Some of the famous explorers who traveled through this area include Father Hennepin, Jonathan Carver, Zebulon Pike, J. C. Beltrami, and Henry Schoolcraft.

As the fur trade began to diminish, the lumber industry became more important. Several towns between St. Cloud and Anoka had large sawmills which processed an enormous amount of lumber during the mid and late 19th century. Other industry, such as flour milling and rock quarrying gained importance.



With increasing settlement, transportation networks evolved. The famous Red River Ox Cart trail paralleled the river on the east side. Remnants of this trail can still be seen. Steamboat traffic was important in the 1850's and 1860's.

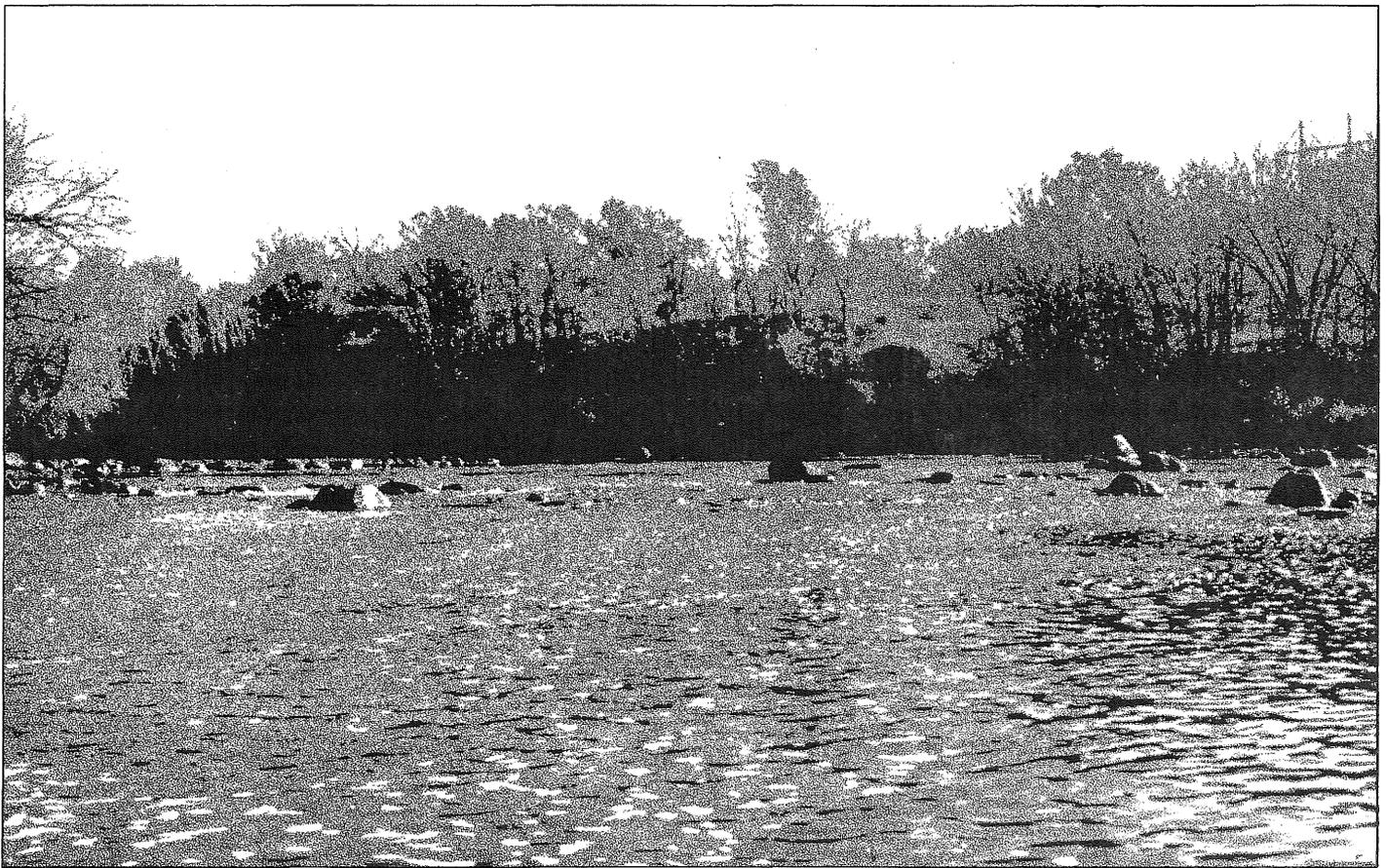
Farming later became the dominant industry. Some of the earliest settlers in the area homesteaded near the river. In 1850, Oliver H. Kelley, founder of the National Grange, staked a claim on the river between Elk River and Anoka. His farm is now preserved by the State Historical Society.

Soon settlements began to be established. Though some of the early villages are now ghost towns, most have survived and are viable and growing communities today.

The historical values of this area are of statewide significance because of the integral part which the river has played in the exploration, settlement, and development of Minnesota. Protection and preservation of this portion of the Mississippi River through inclusion in the Wild, Scenic, and Recreational Rivers System reflects both the recognition and preservation of this heritage.

Scenic

The Mississippi River valley between St. Cloud and Anoka is a uniquely scenic area of Minnesota. The Mississippi is by far the largest river in the central portion of the state. Between St. Cloud and Anoka, it flows through a broad valley averaging several hundred feet in width. In several places, the bluffs rise 50 to 100 feet or more from the water's edge. Over 100 islands, varying in size from sandbars to over a mile in length, are located within this 55 mile stretch of river. The river bed itself contains rock rapids and large boulders.



Much of the river corridor is wooded and either used for pasture or is undisturbed. The floodplain and bluff areas are largely undeveloped and, in general, retain a natural character. Remnants of the original "Big Woods" and prairie vegetation have survived along some of the bluff areas. The diversity of vegetation presents a particularly pleasing scene, especially in autumn when the colorful foliage of red cedar, oak, aspen, birch, maple, elm, basswood, cottonwood, ash, dogwood, sumac and many other species combine to lend a special beauty to the river corridor.

Although a glimpse of this scenic beauty can be obtained at several points along the river's edge, it is best viewed from the river itself. There you can travel through large sections of the river which appear virtually unchanged from their original condition. Some of the more scenic areas, however, are being threatened by residential development which often results in removal of vegetation and alteration of the banks or shorelines.

Many of the early explorers were very impressed with the scenic values of this portion of the Mississippi River. Management of this area as a State Scenic and Recreational River will help to preserve at least a part of these values for future generations to enjoy.



Recreational

Outstanding recreational opportunities are available along the Mississippi River from St. Cloud to Anoka. The river is excellent for fishing, canoeing, and boating. Some of the finest fishing opportunities in the region are available on the Mississippi River. Small boats can be operated along the entire 55 miles between St. Cloud and Anoka. It is ideal for family type canoeing because the rapids are mild and the current is quite moderate. A choice of several one-day trips is available, including St. Cloud to Clearwater, Clearwater to Monticello, Monticello to Elk River, and Elk River to Anoka. In addition, the entire stretch can be motored easily in two days, making it suitable for a weekend outing.

A number of recreational sites, including city and county parks, are located along this portion of the river. A more detailed listing and description of these recreational areas is given in the "Recreational Features" section of the Analysis. In addition to those areas providing for picnicking, boat launching, etc., there are historical points of interest, such as the Kelley Farm; the Red River Ox Cart trail and site of old Itasca Village at the Highway Rest Area at Anoka; the site of the historic Clearwater Ferry; and the monument describing the Beaver Islands at Riverside Park in St. Cloud.

An interesting bike trip is available along the west side of the river from Anoka to St. Cloud utilizing county and state highways roughly paralleling the river. (Most automobile traffic is now carried by Interstate 94 on the West and U.S. 10 and 52 on the East side of the river). Towns along the way provide convenient rest stops.



At the present, there appears to be adequate access facilities to the river. Though there is a lack of large public-use recreational sites, such as state parks or recreation areas, the river itself provides the primary attraction and recreational opportunities. Because of its location between the large population centers of St. Cloud and the Twin Cities metropolitan area, the Mississippi River will likely experience an increasing recreational demand. Designation of this area as a state

Scenic and Recreational River will provide for the regulation of this public use, where necessary, to insure the preservation of the existing recreational amenities, as well as the other outstanding values of the river.

Natural and Scientific

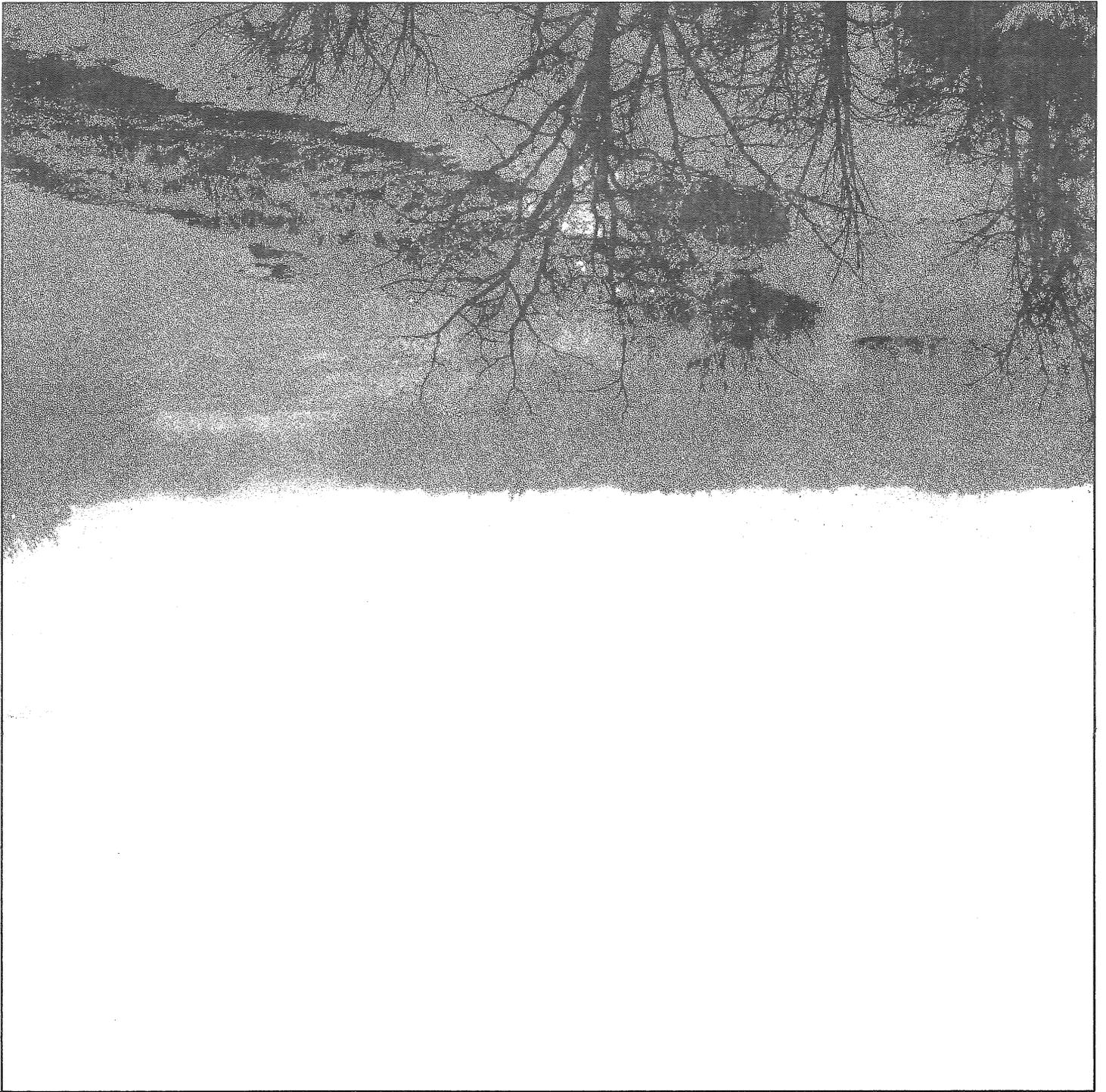
Lands adjacent to the river reflect a wide variety of natural amenities that, in combination, make this portion of the river a valuable natural area. Perhaps the most important resource of the shoreland area is the vegetation. One of the most striking aspects of this portion of the Mississippi River and adjacent lands is that its vegetation has remained essentially the same as when white explorers first described it. Approximately 70% of the shoreland is wooded, in addition to the numerous, heavily wooded islands. The upland areas still harbor remnants of the original "Big Woods" with some excellent examples of vegetation such as basswood, ash, elm, maple, ironwood, and others. Bluff areas retain some of the original prairie and oak savannah species. The islands and floodplain areas that have not been pastured are probably very similar to those that Pike and other explorers observed over 150 years ago.

This fact is made even more intriguing because the study area is sandwiched between the large population centers of St. Cloud and the Twin Cities. With so much settlement, it would be expected that more alteration should have taken place. It is also significant because other rivers in the state have not always fared as well. For example, original pine forests which once bordered many northern rivers have in many cases been replaced by aspen, mixed hardwoods, or a mixture of conifers and hardwoods.

An explanation of this interesting situation probably lies in the characteristics of the vegetation itself. Unlike the great white and red pine forests of the north, trees along this portion of the Mississippi did not constitute such a vast economic asset. It was of value to the local settlers to meet their immediate needs for fuel, building materials, etc. Though settlement of various forms has altered the vegetation in some areas, it has also served to preserve many areas of original vegetation types, especially along the bluffs and lowlands.

One of the threats to existing vegetation is in expanded growth of residential housing. In many cases, trees are cleared to provide for houses, driveways, lawns, and/or an unobstructed view of the river. On an individual basis, this reduction may seem insignificant. Taken as a whole, however, this development does indeed pose a threat to vegetation. Only the steeper bluffs, wetter lowland areas, and islands can be considered relatively safe from such alteration.

The Talahi area at St. Cloud, which is owned by St. Cloud State College, preserves some excellent examples of prairie oak savannah, and a small area of floodplain. This area is used as a outdoor classroom and research area by the college. It is typical of many areas along the river which retain significant remnants of the original vegetation resources.



One particularly notable plant species, bladdernut, has been identified on one of the islands between Monticello and Elk River. Bladdernut was formerly thought to extend no farther north than the Twin Cities. Its discovery on this island represents the northwestern most occurrence, and as such is worthy of protection.

The vegetation resource provides immeasurable scenic, historical and scientific values, in addition to wildlife habitat. Therefore, it is in the interest of present and future generations to preserve and protect this vegetation to the greatest extent possible.

The wildlife resource is another important natural amenity of the Mississippi River. The river itself has an excellent population of game fish, including bass, walleye, northern pike, and catfish. White-tailed deer are quite common in the wooded areas adjacent to the river. Perhaps the most frequently observed animals are the many species of wetland birds, shorebirds, song birds, hawks, and owls. The great blue heron is very common, and nests at some locations along the river. Some of the species rare to this part of Minnesota that have been observed along the river include mule deer, northern bald eagle, and osprey.

As previously stated, the river flows through a broad valley and is bordered in many areas by high bluffs. In some areas, natural terraces were formed along these bluffs as water levels receded during post-glacial times. The Talahi area preserves an excellent example of this terracing. The river flows through a large glacial outwash plain composed of sand and gravel. This same material, along with some large boulders, is found in the river bottom as well.

In summary, the combination of historical, scenic, recreational, natural and scientific values; the location of this area between large population centers; and the increasing pressure on the above mentioned values qualifies the Mississippi River from St. Cloud to Anoka for inclusion within the Minnesota Wild, Scenic, and Recreational Rivers System.

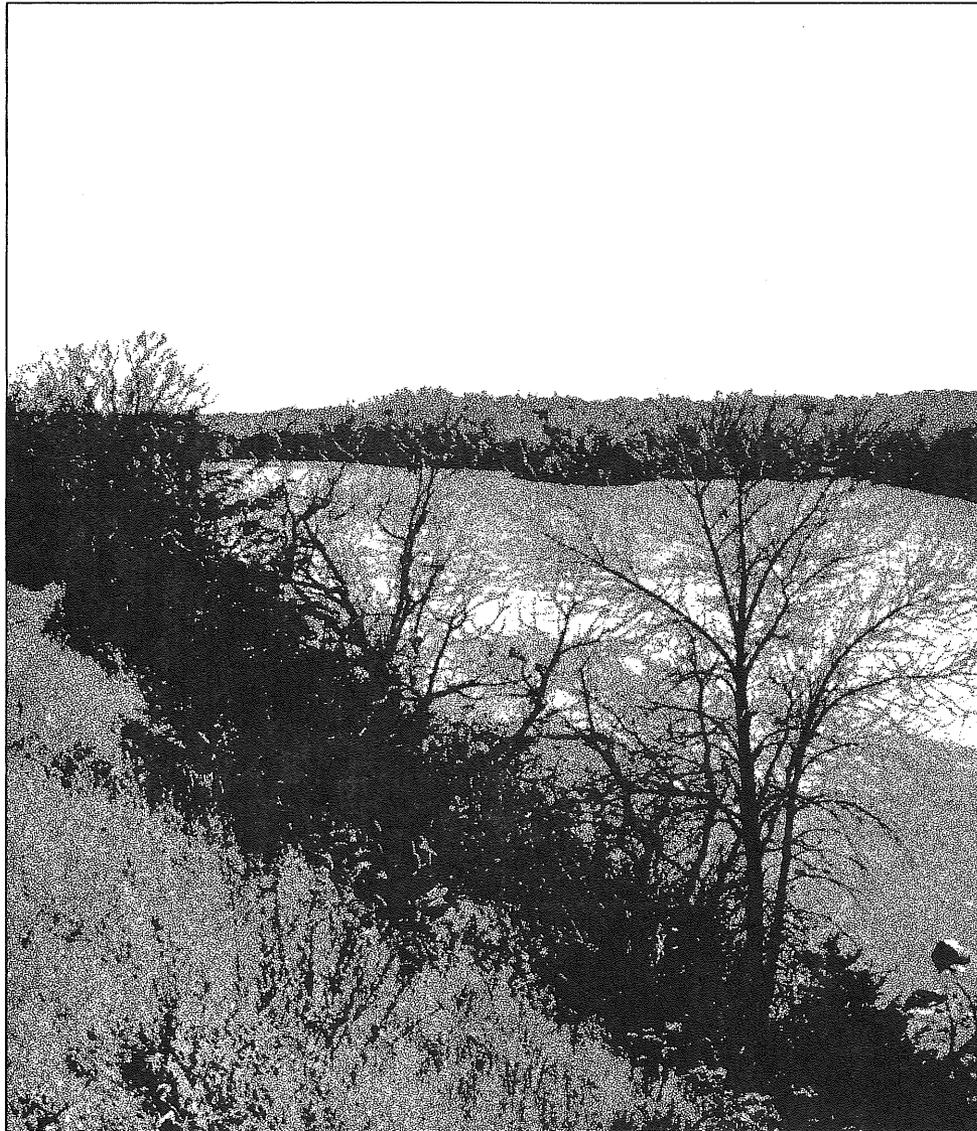
OBJECTIVES

1. To protect and preserve the outstanding scenic, recreational, natural, historic, scientific and similar values of the management portion of the Mississippi River and adjacent lands for present and future generations.
2. To recommend how to best protect the Mississippi River and its adjacent lands in accordance with the Minnesota Wild and Scenic Rivers Act.
3. To define the boundaries of the area to be administered according to the established statewide standards and criteria.
4. To provide the basic analysis and subsequent recommendations for use by state and local governments in making decisions regarding the Mississippi River Land Use District.

MANAGEMENT AREA

The management area consists of 15,501.84 acres along the Mississippi River, extending a distance of approximately 55 miles, from the Northern States Power Company dam at St. Cloud to the state highway #52 and #169 bridge at Anoka. The river flows through, or forms the boundary of, five counties along this route. They are Stearns, Sherburne, Wright, Anoka, and Hennepin. Width of the management area varies, but in accordance with provisions of the Wild and Scenic Rivers Act, does not exceed 320 acres in extent for any river mile.

Policies and guidelines contained in the statewide standards and criteria (NR 78-81) are supplemented and complemented by the provisions of this plan which provide for establishment of a Scenic and Recreational River Land Use District.



STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES

Rules and Regulations

CHAPTER TWENTY FOUR: NR 2400

DESIGNATION, CLASSIFICATION AND MANAGEMENT OF THE
MISSISSIPPI RIVER IN STEARNS, SHERBURNE,
WRIGHT, ANOKA AND HENNEPIN COUNTIES

NR 2400 DESIGNATION

(a) THE RIVER

That portion of the Mississippi River from the Northern States Power Company (NSP) dam at St. Cloud to the Highway #52 and #169 bridge crossing at Anoka is hereby designated a component of the Minnesota Wild, Scenic and Recreational Rivers System.

(b) AUTHORITY

This designation is made by the Commissioner of Natural Resources pursuant to the authority of the Minnesota Wild and Scenic Rivers Act, Minn. Stats. 1974, Sections 104.31 to 104.40.

(c) SHORELAND INCLUDED

The designation and these rules apply to the river and the adjacent lands as provided in the Land Management Maps Plates 1 through 9 and the property descriptions for the Land Use Districts.

NR 2410 CLASSIFICATION

That portion of the Mississippi River and adjacent lands from the Northern States Power Company (NSP) dam at St. Cloud to the county line at the Clearwater River between Stearns and Wright counties, and State Highway #24 in Sherburne County, are classified as Scenic.

That portion of the designated river and adjacent lands from the county line at the Clearwater River between Stearns and Wright counties, and State Highway #24 in Sherburne County, to the Highway #52 and #169 bridge crossing at Anoka are classified as Recreational, in accordance with the provisions of Minn. Stats., Section 104.33 Subd. 2, and Minn. Regs. NR 78 (f)

NR 2420 MANAGEMENT

(a) RECREATION MANAGEMENT

(1) As provided for in the Management Plan, the recreation management policy is to provide for the orderly use of public lands and waters within the Scenic and Recreational River Land Use District. The development of selected land and river oriented recreational facilities and the maintenance of these

will help "protect the rights of private landowners, ensure quietude, prohibit trespassing, and maintain the essential quality of wild and scenic river land use districts as provided in NR 80 (a) (1).

(2) As provided for in NR 79 (b) (2) and the Management Plan the development of public or private recreational facilities within the Scenic and Recreational River Land Use Districts shall conform to the design specification guidelines as shown on Figures 1-6.

(3) No public river-oriented camping facilities will be provided in close proximity to private recreational developments which are designed to serve the public demand for these.

(4) The recreational use of the Mississippi Scenic and Recreational River and adjacent public lands will be regulated where necessary to insure that the use does not adversely affect the values for which the river qualified for designation.

(5) The Commissioner of Natural Resources adopts the Recreation Management maps, plates 1-9, for the protection, recreational use and management of public lands or interests in land, for the Mississippi Scenic and Recreational River and its adjacent lands within the Recreational River Land Use Districts.

(6) The Division of Parks and Recreation shall allocate funds for maintenance of the Department of Natural Resources' recreational facilities within the Mississippi River Land Use Districts from the Department's river development and maintenance account.

(7) The Department's Enforcement Division shall enter into discussions with the local units of government concerning delineation of responsibilities for enforcement of applicable wild, Scenic and recreational river regulations.

(8) All islands acquired by or transferred to the Department of Natural Resources, shall be managed in a manner consistent with the policy established in the Minnesota Wild and Scenic Rivers Act, Minn. Stats., Sections 104.31 - 104.40 (1974).

(b) LAND MANAGEMENT

(1) The designated tributaries referred to in the Minnesota Regulations NR 79 (c) (3) (bb) (iii) and Minnesota Regulations NR 79 (d) (2) shall be:

1. St. Augusta Creek (Johnson Creek on U.S.G.S. quadrangles)
2. Plum Creek
3. Clearwater River
4. Bend Creek (Fish Creek on U.S.G.S. quadrangles)
5. Silver Creek
6. Otter Creek
7. Creek at Otsego
8. Elk River
9. North Fork Crow River

(2) The Commissioner of Natural Resources hereby adopts the Land Management maps, plates 1-9, to the area identified in the legal description and according to NR 78 (g) (2) (bb) for the protection and management of lands within the Scenic and Recreational River Land Use Districts.

(aa) The regulations contained in Minnesota Regulations NR 78-81 shall be applicable to all unincorporated lands, at the time of designation, within the Scenic and Recreational River Land Use Districts, except for those under Federal jurisdiction.

(bb) The lands or interests in land recommended to be acquired in this plan will be acquired where funds are available for such purchases, in the manner as provided for in Minn. Stats., Section 104.37 (1974).

(cc) The land use regulations contained in Minnesota Regulations NR 82-84 shall be applied to all incorporated lands, and shall be administered in conformity with the provisions of NR 81, as applicable.

(dd) Because acquisition of land, or interests in land, is from willing sellers, at the appraised value, some lands recommended for scenic easement acquisition may be purchased in fee title. This change from the recommended acquisition would be based on the mutual agreement by and between the State of Minnesota and the landowner(s). Furthermore, additional lands, or interests in land, may be purchased in order to further the policies established in Minn. Stats., Section 104.32 (1974) and this Management Plan.

(ee) Land exchanges will be expedited, wherever feasible, in order to acquire lands within the land use district boundaries. These exchanges will be expedited in the manner described by law. However, land exchanges will not be recommended if such exchanges would adversely affect other Department of Natural Resources management programs.

(c) ADMINISTRATION

(1) Stearns County shall enact or amend such ordinances and maps as necessary:

(aa) Establish a Scenic River Land Use District, as identified on the Land Management Maps Plates 1-9 and the Land Use District property descriptions for Stearns County.

(bb) Conform to the provisions of Minn. Regs. NR 78-81.

(2) Sherburne County shall enact or amend such ordinances and maps as necessary to:

(aa) Establish Scenic and Recreational River Land Use Districts, as identified on the Land Management Maps Plates 1-9 and the Land Use District property descriptions for Sherburne County.

(bb) Conform to the provisions of Minn. Regs. NR 78-81.

(3) Wright County shall enact or amend such ordinances and maps as necessary to:

(aa) Establish a Recreational River Land Use District, as identified on the Land Management Maps, Plates 1-9 and the Land Use District property descriptions for Wright County.

(bb) Conform to the provisions of Minn. Regs. NR 78-81.

(4) Anoka and Hennepin Counties shall enact or amend such ordinances and maps as necessary to:

(aa) Establish a Recreational River Land Use District as identified on the Land Management Maps, Plates 1-9 and the land use district property descriptions for Anoka and Hennepin Counties.

(bb) Conform to the provisions of Minn. Regs. NR 82-84 and administer these provisions according to Minn. Regs. NR 81, as applicable.

(5) The municipality of St. Cloud shall enact or amend such ordinances and maps as necessary to:

(aa) Establish a Scenic River Land Use District as identified on the Land Management Maps, Plate 1 and the land use district property descriptions.

(bb) Conform to the provisions according to Minn. Regs. NR 82-84, as applicable.

(cc) Conform to the provisions and administrative procedures of Minn. Regs. NR 78, 79 (e)-(j), and Minn. Regs. NR 80-81.

(6) The municipalities of Clearwater, Monticello, Elk River, Dayton, Ramsey and Anoka shall enact or amend such ordinances and maps as necessary to:

(aa) Establish a Recreational River Land Use District as identified on the Land Management Maps, Plates 1-9 and the land use district property descriptions.

(bb) Conform to the provisions of Minn. Regs. NR 82-84 and administer these provisions according to Minn. Regs. NR 81, as applicable.

(cc) Conform to the provisions and administrative procedures of Minn. Regs. NR 78, 79 (e)-(j), and Minn. Regs. NR 80-81.

(d) INTERAGENCY RECOMMENDATIONS

(1) Federal-State relations

(aa) As authorized under Minn. Stats. 1974, Section 161.142, Subd. 4, the Commissioner of Highways "...may act as agent for any other department of state, public corporation, or political subdivision of the state in accepting Federal Aid in their behalf for the purposes expressed in subdivisions 1 to 7." (This relates to the planning, acquisition, development, maintenance and overall administration of the Great River Road). Accordingly, it is recommended that a portion of any Federal Funds made available to the State of Minnesota for expenditure on the Great River Road be accepted by the Commissioner of Highways, on behalf of the Department of Natural Resources, for the purposes of land acquisition related to preservation of areas adjacent to the designated Recreational River and the Great River Road.

(bb) It is further recommended that any proposed development, acquisition, or related action concerning the Great River Road be conducted and administered in accordance with this management plan and the provisions of Minn. Regs. NR 78-81.

(cc) Since the Department of Natural Resources is responsible for administering the Mississippi as a Scenic and Recreational River, it is recommended that the State of Minnesota, through the appropriate application process, apply for those islands presently administered by the Bureau of Land Management to be transferred to the Department of Natural Resources under the authority granted the Commissioner of Natural Resources in Minn. Stats. 1974, Section 104.35.

(2) Other Governmental Units

(aa) In order to further the purposes of the Minnesota Wild and Scenic Rivers Act, it is recommended that all State Highway Department lands within the Recreational River land use districts be administered in accordance with the provisions of Minn. Regs. NR 78-81 and this management plan. In particular, it is stated in NR 79 (b) (2) (cc) that public accesses within the Recreational River land use district will be subject to management plan specifications, and will be considered as permitted uses.

(bb) No Department of Natural Resources "corridor" trails are proposed in this management plan for the Mississippi Scenic or Recreational River area. Local residents and landowners may desire specific recreational trails for their area. If so, it is recommended that such trails be developed through the Department of Natural Resources' trail assistance programs. Through the Department's trail assistance programs, funds for local trail development and maintenance are made available to local units of government.

(cc) It is recommended that the Minnesota Highway Department, in cooperation with the Department of Natural Resources, Governor's Trail Advisory Committee, counties, municipalities, and other agencies and groups, conduct a study to determine an appropriate route for a bicycle route paralleling the Mississippi River from the Twin Cities to St. Cloud.

(dd) To help insure that the outstanding heritage of the Mississippi River will be protected for future generations, it is recommended that the State Historical Society conduct an inventory of all historical and archeological sites within the proposed Scenic and Recreational River land use districts, and recommend appropriate methods for preservation of those having outstanding historical significance.

(ee) It is recommended that the State Pollution Control Agency be appropriated sufficient funds to conduct ongoing analysis and monitoring of water quality information, and to allow for appropriate measures to insure that water quality regulations and standards be maintained for the Mississippi River.



UTILITY CORRIDORS

There is an inherent conflict between the construction of essential services such as gas, power, telephone and other utilities and the preservation of wild, scenic, or recreational rivers. Because of the location of the study area portion of the Mississippi River between large population centers, and its central location in the state as whole, it is virtually inevitable that there will be a need for additional utility crossings in the future. This is especially true since there are currently three power generating plants within the area, and another scheduled to begin operating by 1976.

The portion of the Upper Mississippi River from Lake Itasca to Anoka has been designated for study for possible inclusion in the National Wild and Scenic Rivers System. During the study period to determine the river's suitability for inclusion in the National System, certain restrictions are in effect for any new projects subject to licensing by the Federal Power Commission. Such projects would, in general, be related to the construction of dams, reservoirs, powerhouses, transmission lines and other structures or facilities associated with the production of hydroelectric power.

In addition, as stated in the National Wild and Scenic Rivers Act, "... no department or agency of the United States shall assist by loan, grant, license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such river might be designated, as determined by the secretary responsible for its study or approval ..."

The statewide regulations and this management plan discourage any crossing or location of utility corridors within the scenic or recreational land use districts. As a complete prohibition of any new crossings would be impractical and unreasonable under the circumstances however, it is recommended that existing crossings be used as much as possible and that any routes paralleling the river be avoided so as to have the least disruptive impact on the natural character of the landscape and adjacent landowners. As stated in Minnesota Regulations NR 79 (1) (2) (bb), such crossings should be avoided whenever practicable.

MINNESOTA WILD, SCENIC AND RECREATIONAL RIVERS SYSTEM

The new minimum standards shall apply to each designated river as follows:

	RIVER CLASSIFICATION		
	<u>Wild</u>	<u>Scenic</u>	<u>Recreational</u>
Lot Area **	6 Acres (261,360 Sq. Ft.)	4 Acres (174,240 Sq. Ft.)	2 Acres (87,120 Sq. Ft.)
Water Frontage*	300 Ft.	250 Ft.	200 Ft.
Lot Width at Building Line*	300 Ft.	250 Ft.	200 Ft.
Building Setbacks From:			
Normal High Water Mark	200 Ft.	150 Ft.	100 Ft.
Designated Tributaries	100 Ft.	100 Ft.	100 Ft.
Bluffline	40 Ft.	30 Ft.	20 Ft.
Sewage System Setbacks From:			
Normal High Water Mark	150 Ft.	100 Ft.	75 Ft.
Designated Tributaries	75 Ft.	75 Ft.	75 Ft.

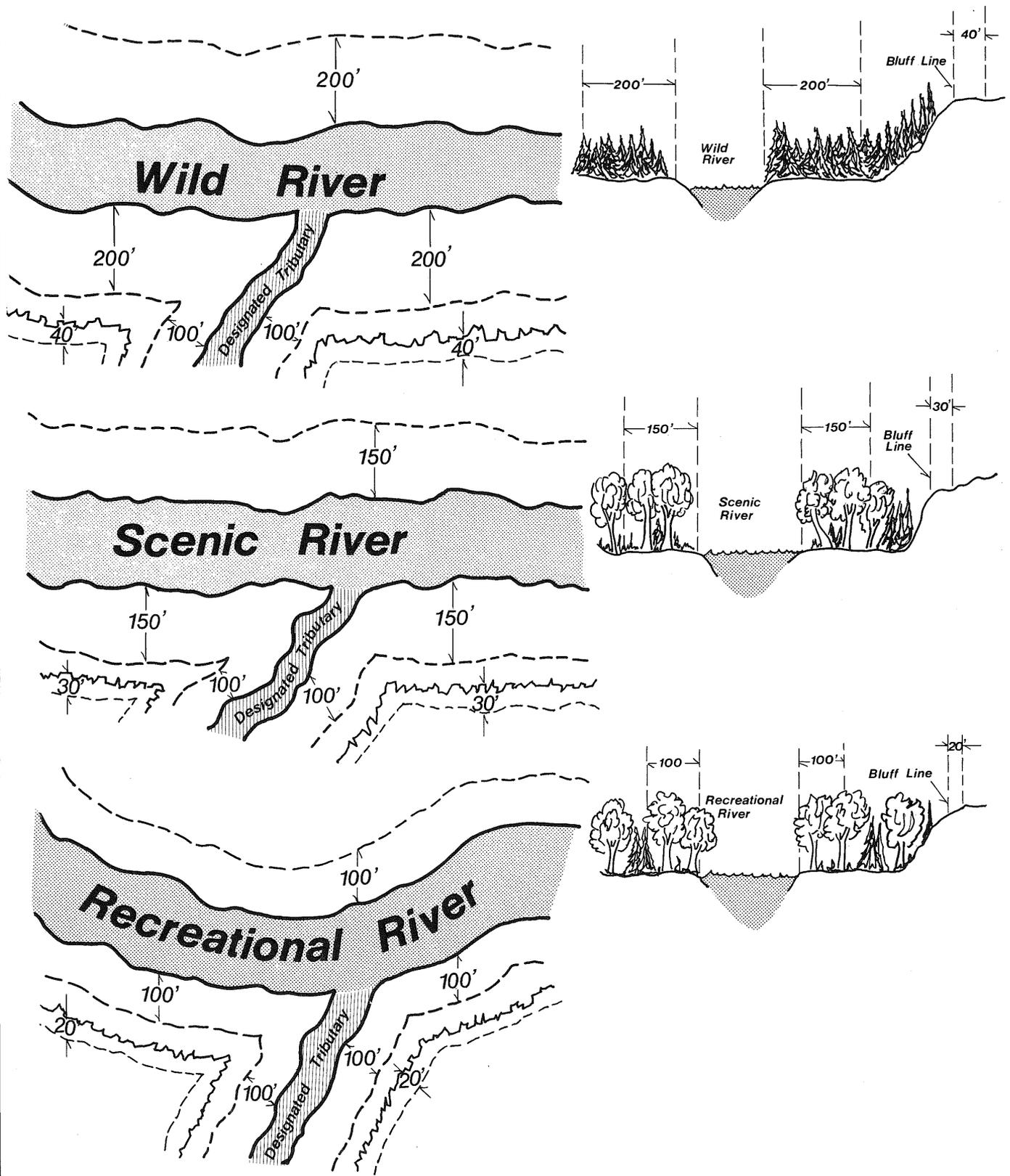
Existing State Shoreland Management Minimum Standards

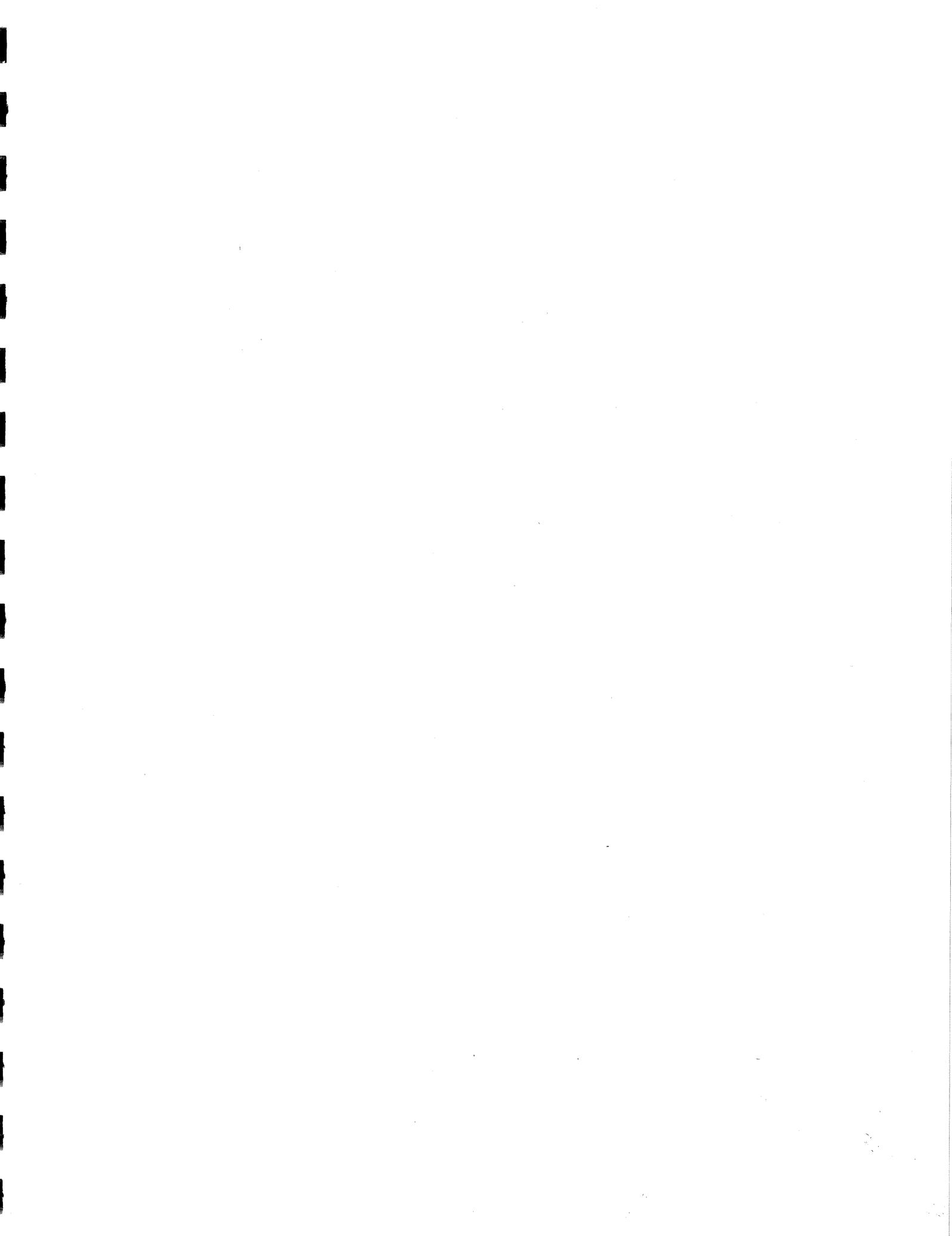
	<u>Natural Environment Lakes & Streams</u>	<u>Recreation Development Lakes</u>	<u>General Development Lakes & Streams</u>
Lot Area **	80,000 Sq. Ft.	40,000 Sq. Ft.	20,000 Sq. Ft.
Water Frontage*	200 Ft.	150 Ft.	100 Ft.
Building Setback From Shoreline	200 Ft.	100 Ft.	75 Ft.
Soil Absorption Unit Setback From Shoreline	150 Ft.	75 Ft.	50 Ft.

+Smaller lot sizes may be permitted for planned cluster developments.

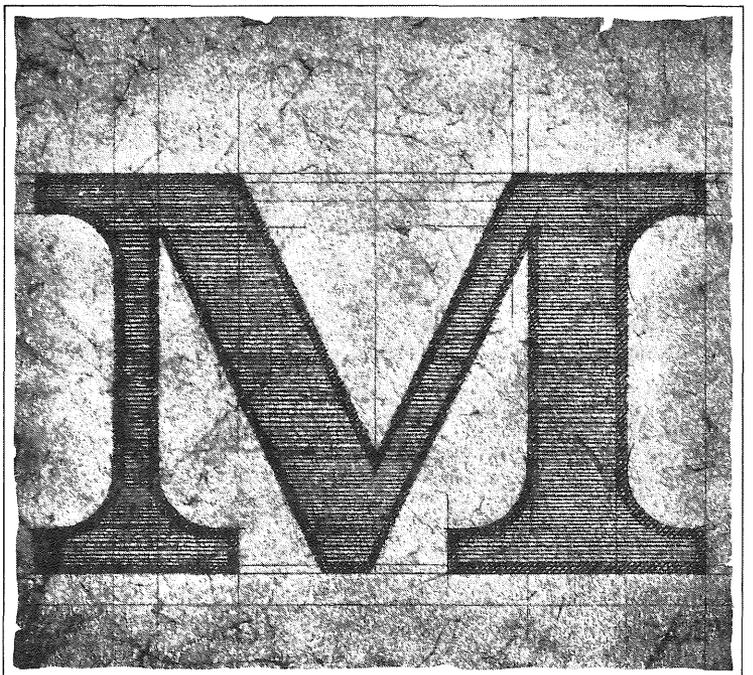
*Applies only to newly platted lots.

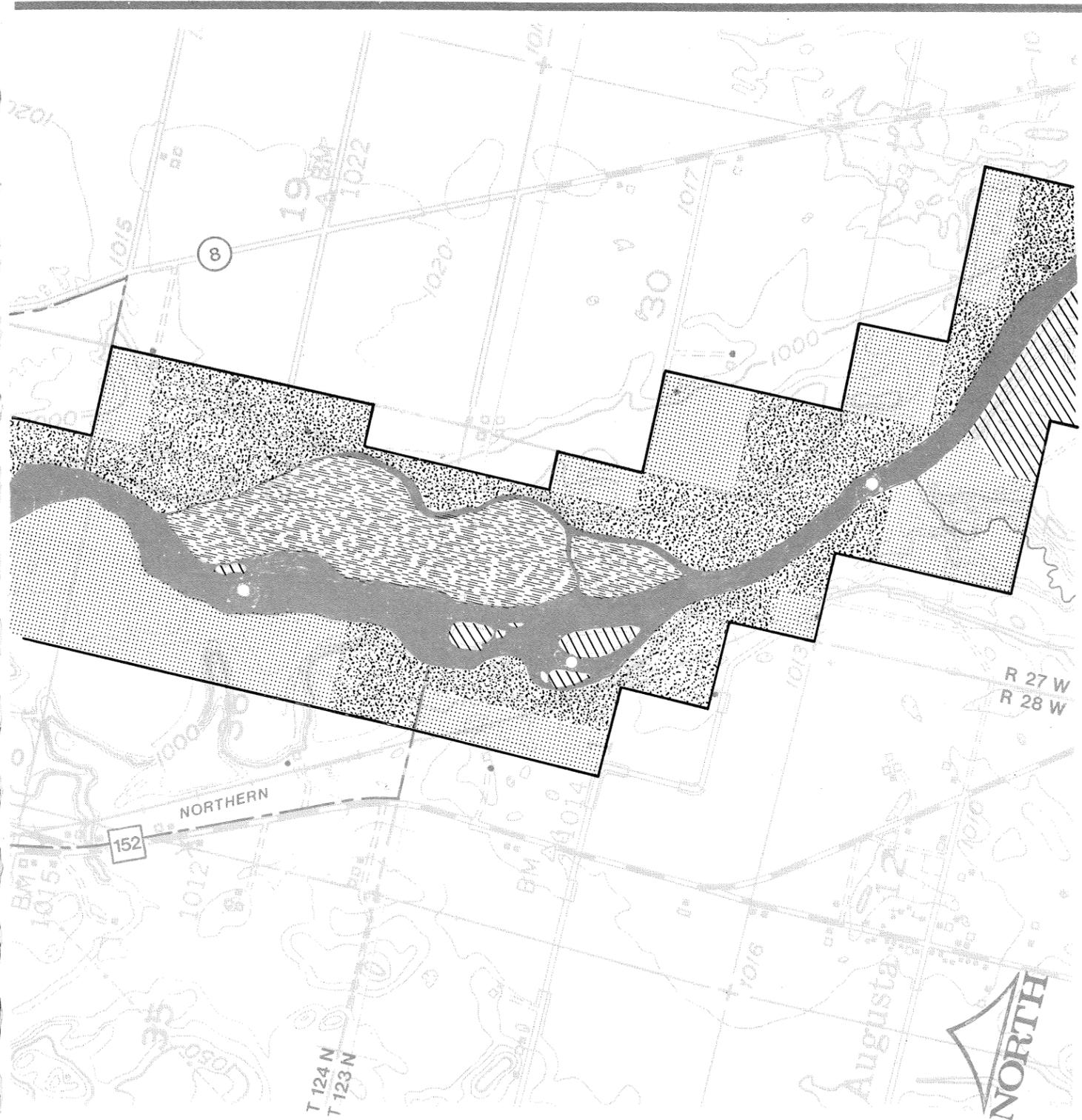
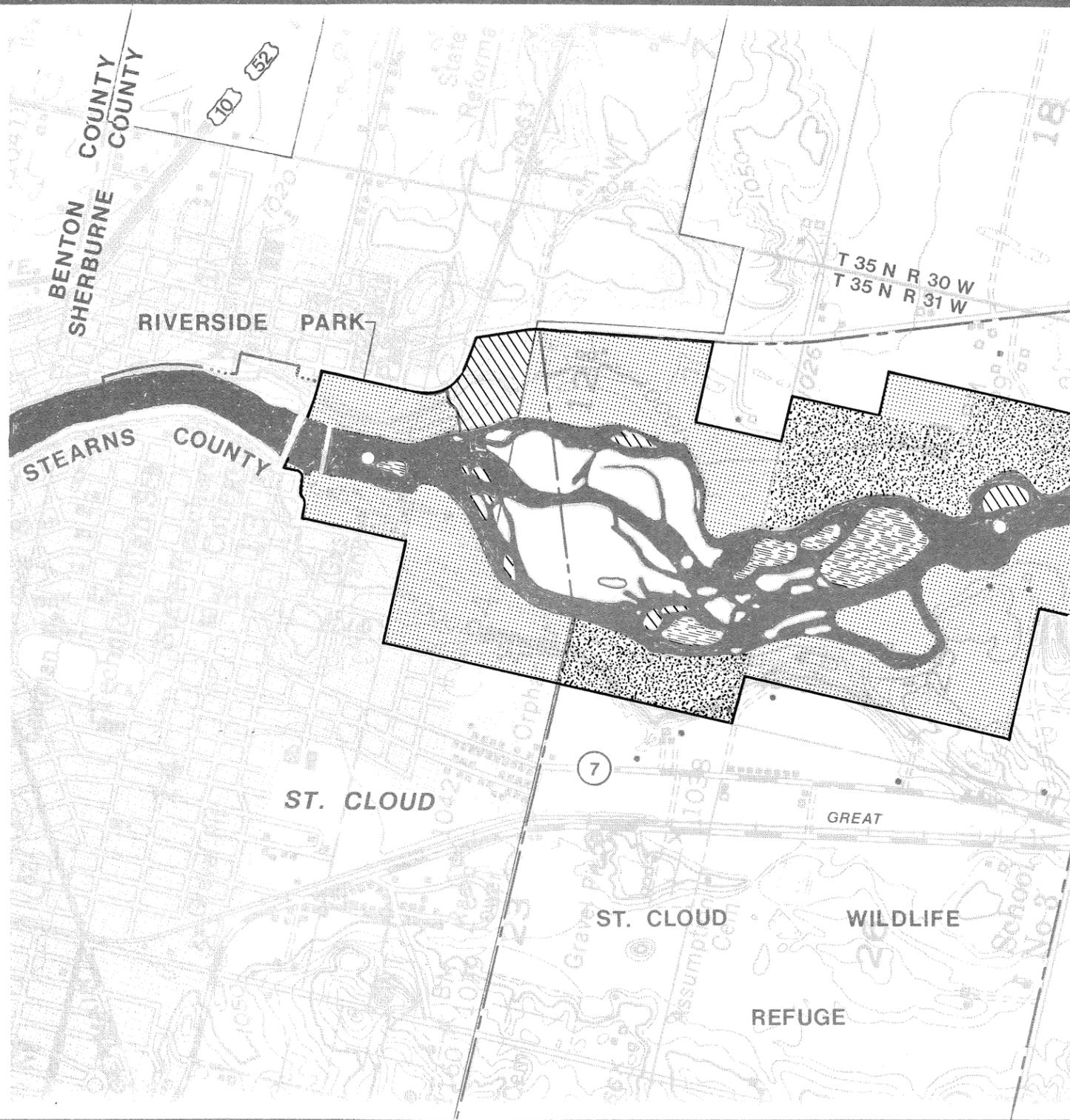
REGULATED VEGETATION CUTTING AREAS





**LAND
MANAGEMENT**





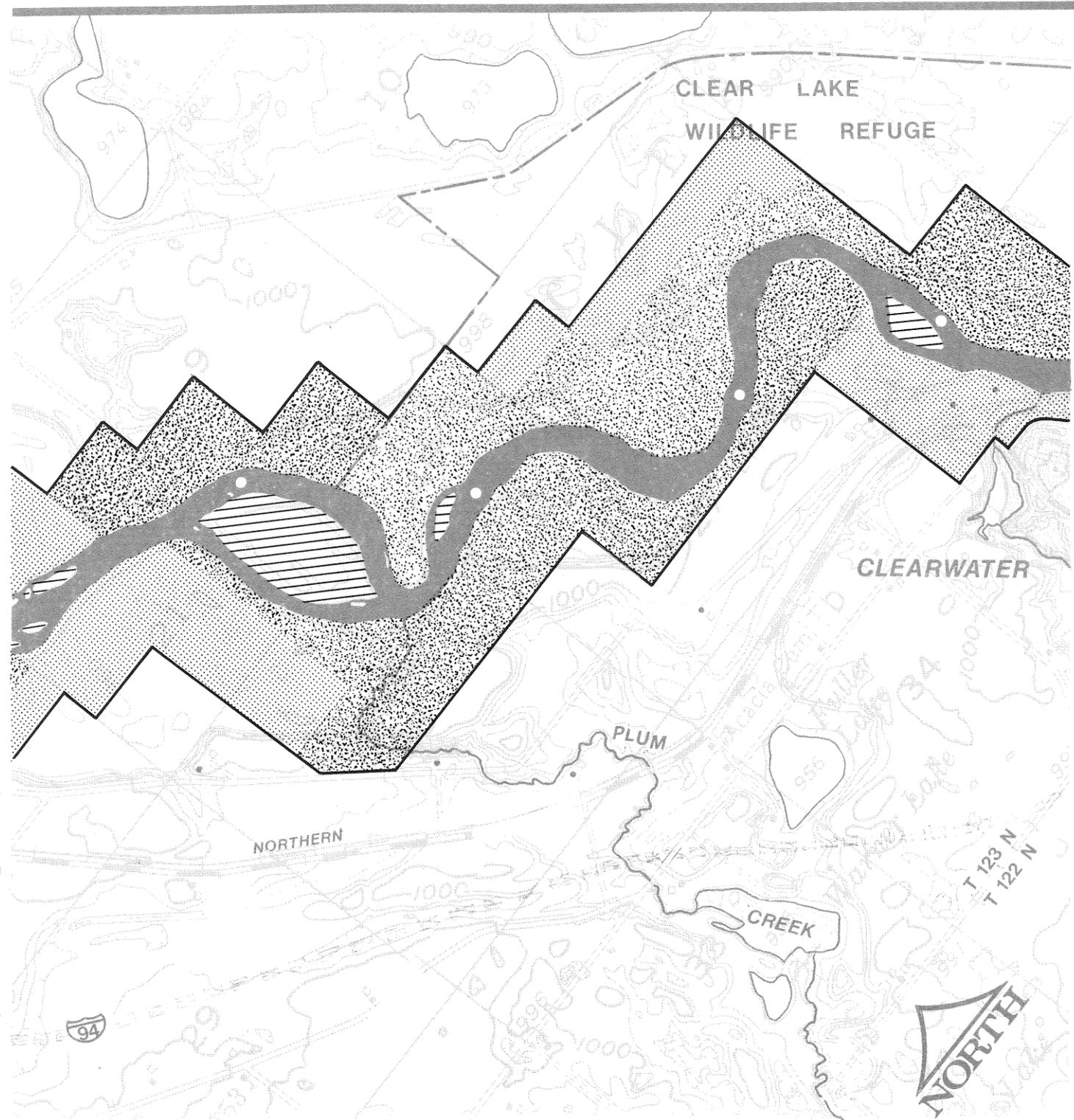
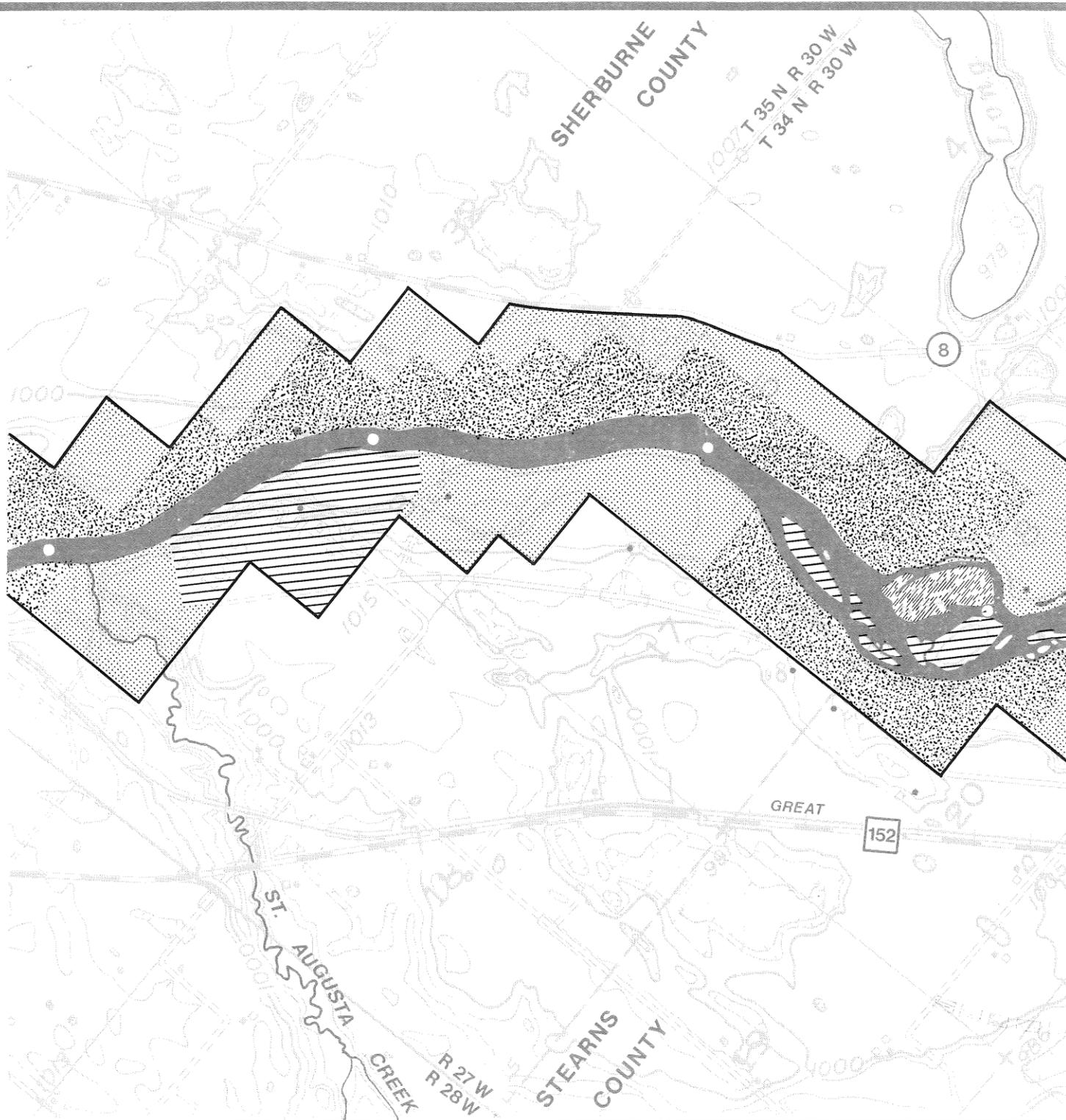
LAND

	LAND USE DISTRICT
	PUBLIC OWNERSHIP

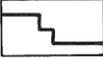
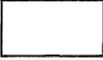
MANAGEMENT

	FEE TITLE
	SCENIC EASEMENT
	ZONING

PLATE 1
scale:
1" : 2000'



LAND

	LAND USE DISTRICT
	PUBLIC OWNERSHIP

MANAGEMENT

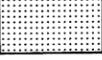
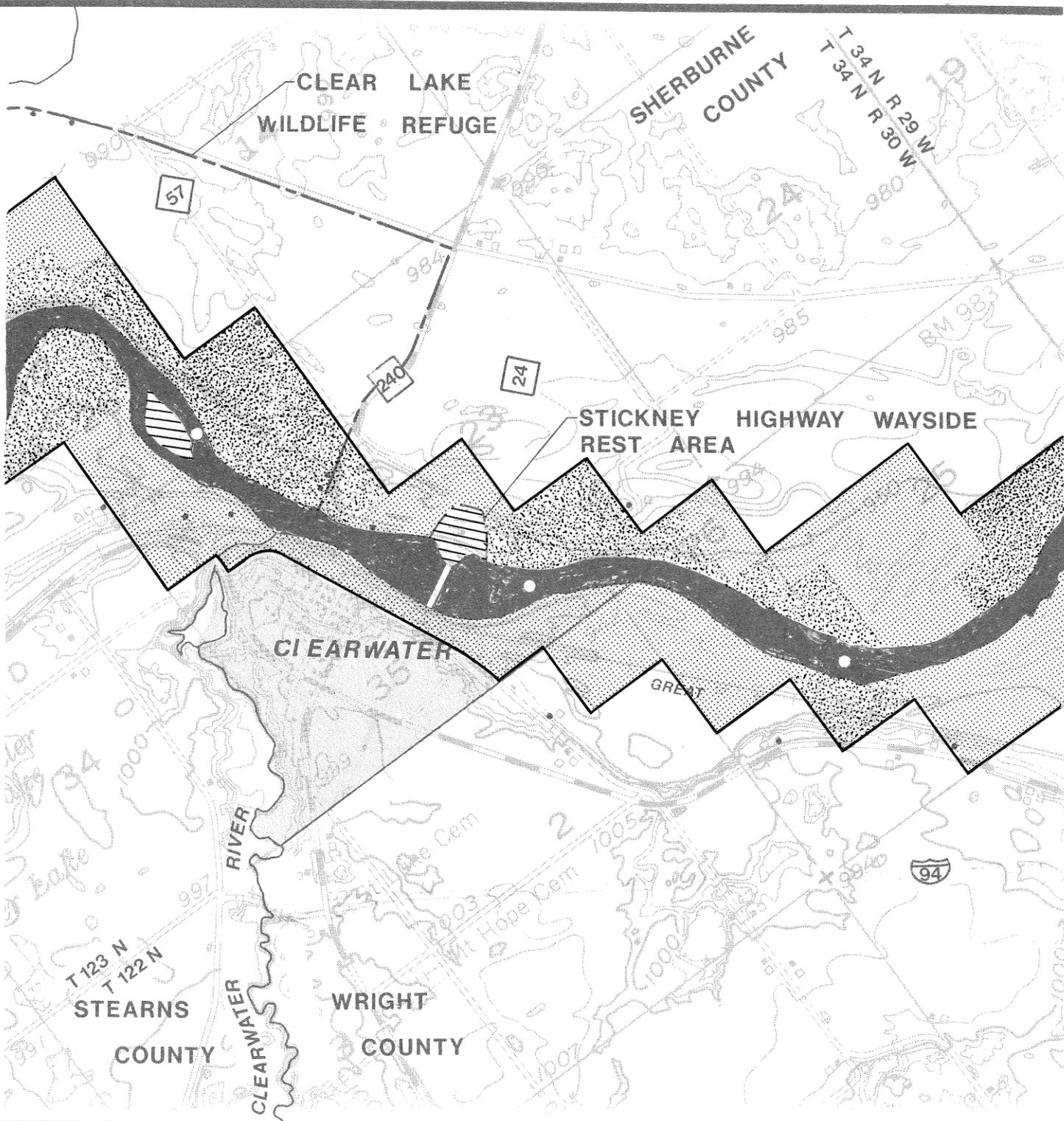
	FEE TITLE
	SCENIC EASEMENT
	ZONING

PLATE 2

scale:
1" = 2000'



LAND

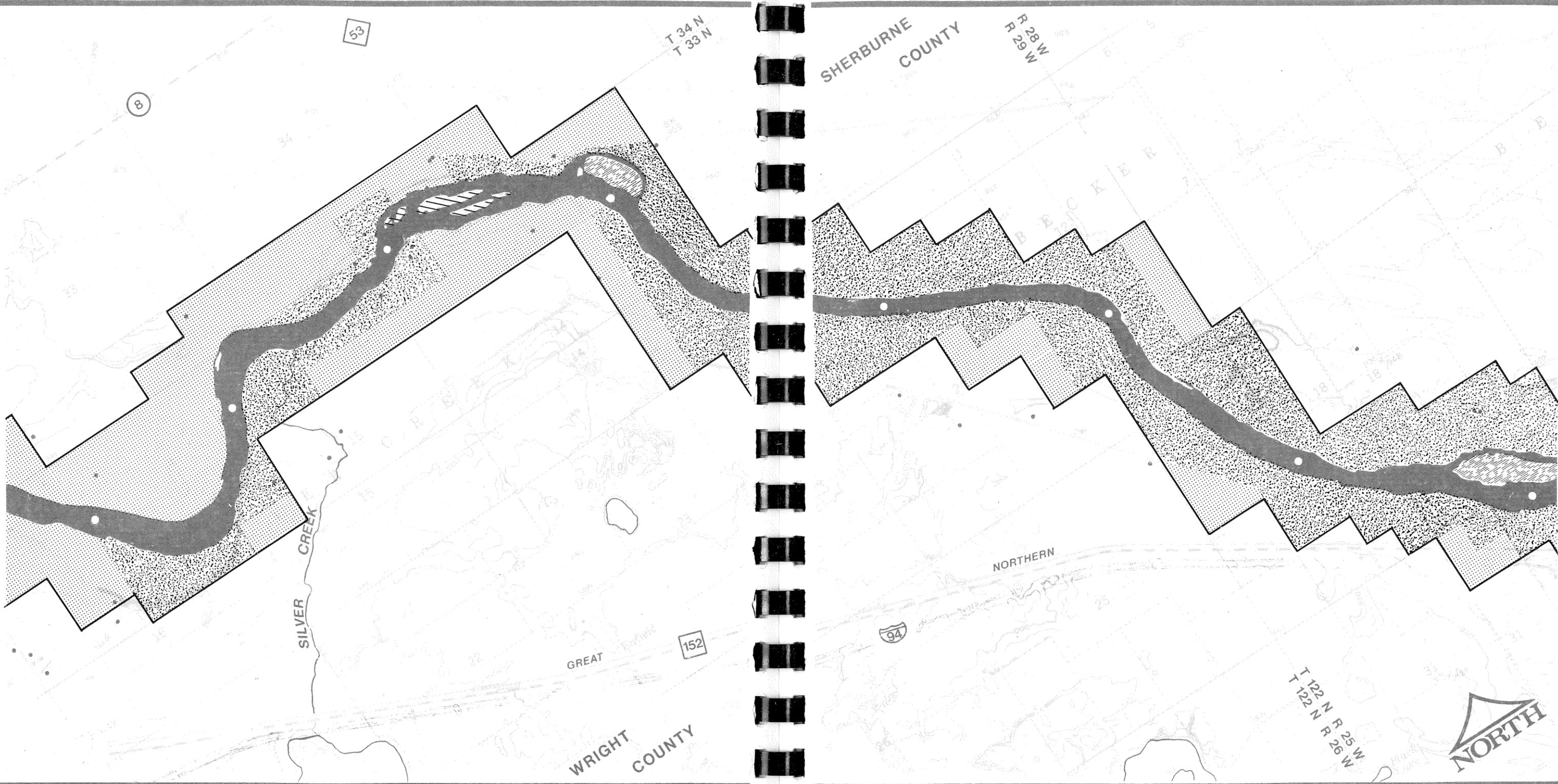
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	PUBLIC OWNERSHIP

MANAGEMENT

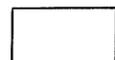
	FEE TITLE
	SCENIC EASEMENT
	ZONING

PLATE 3

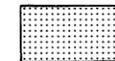
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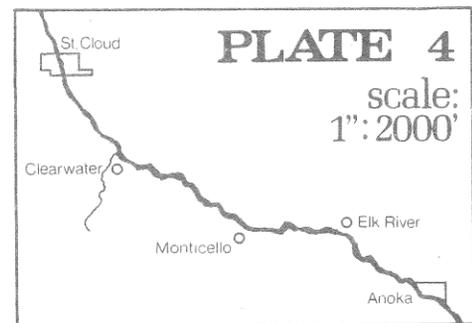


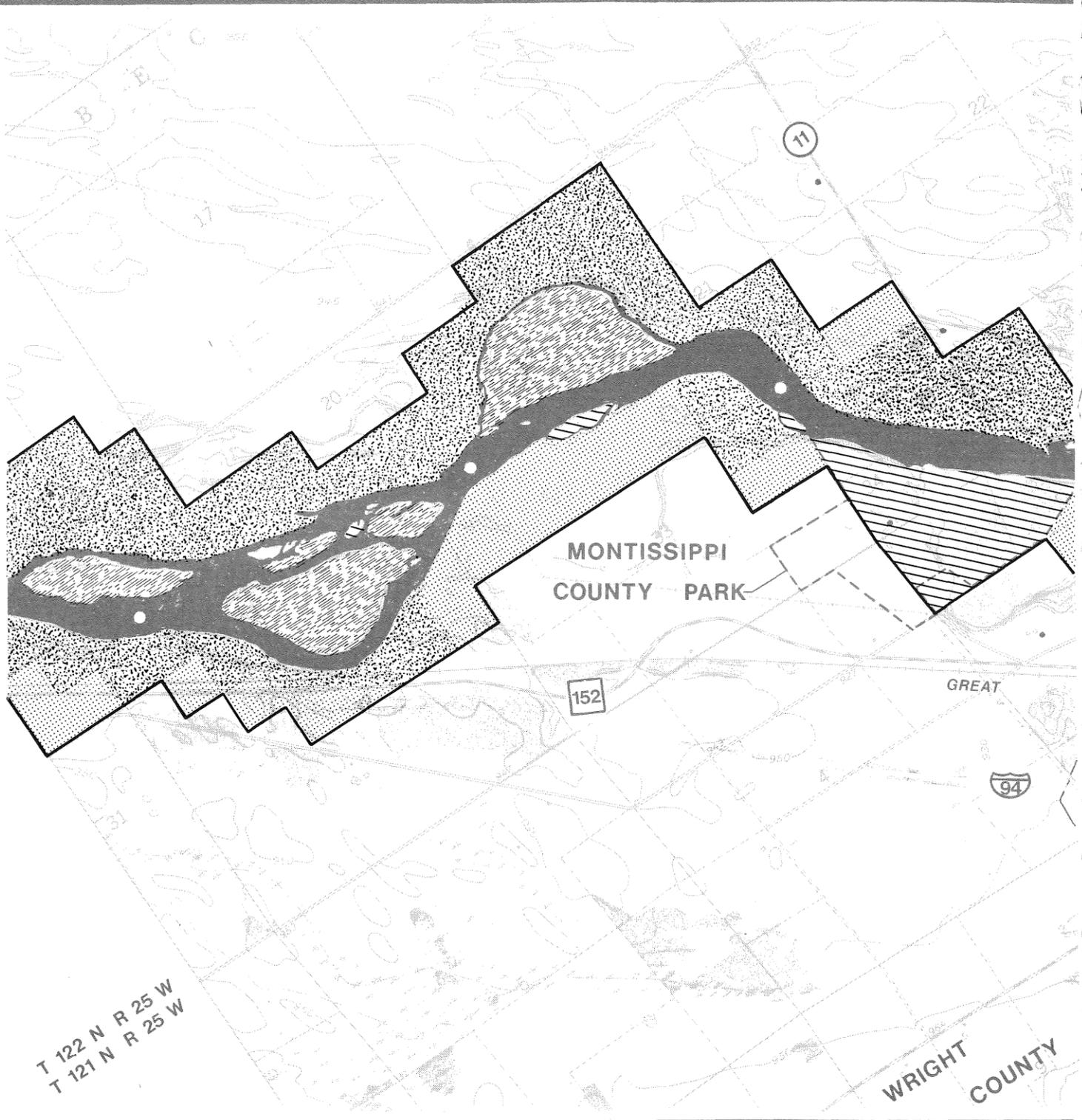
LAND

-  LAND USE DISTRICT
-  PUBLIC OWNERSHIP
-  PUBLIC OWNERSHIP

MANAGEMENT

-  FEE TITLE
-  SCENIC EASEMENT
-  ZONING





LAND

	LAND USE DISTRICT
	PUBLIC OWNERSHIP

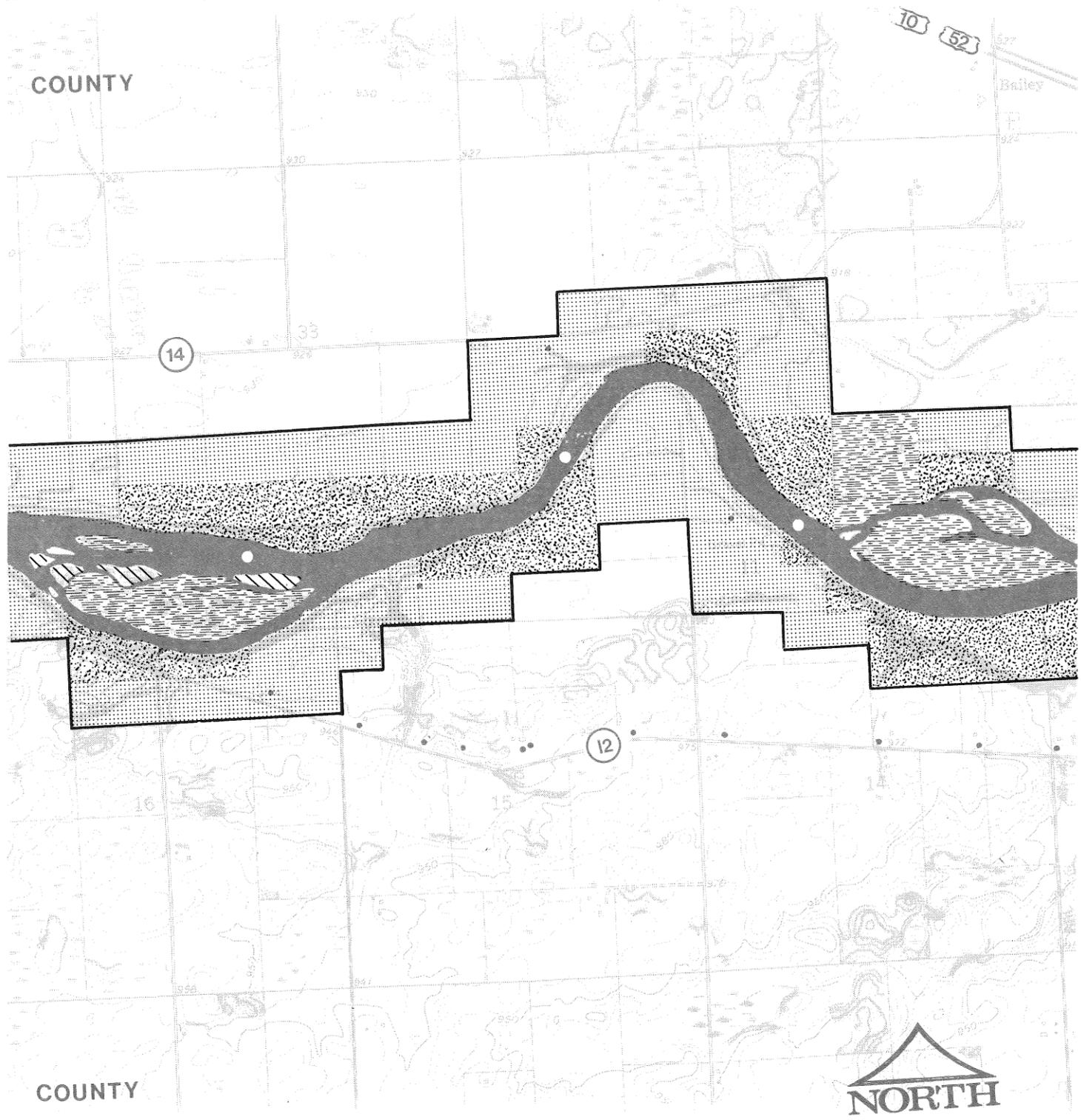
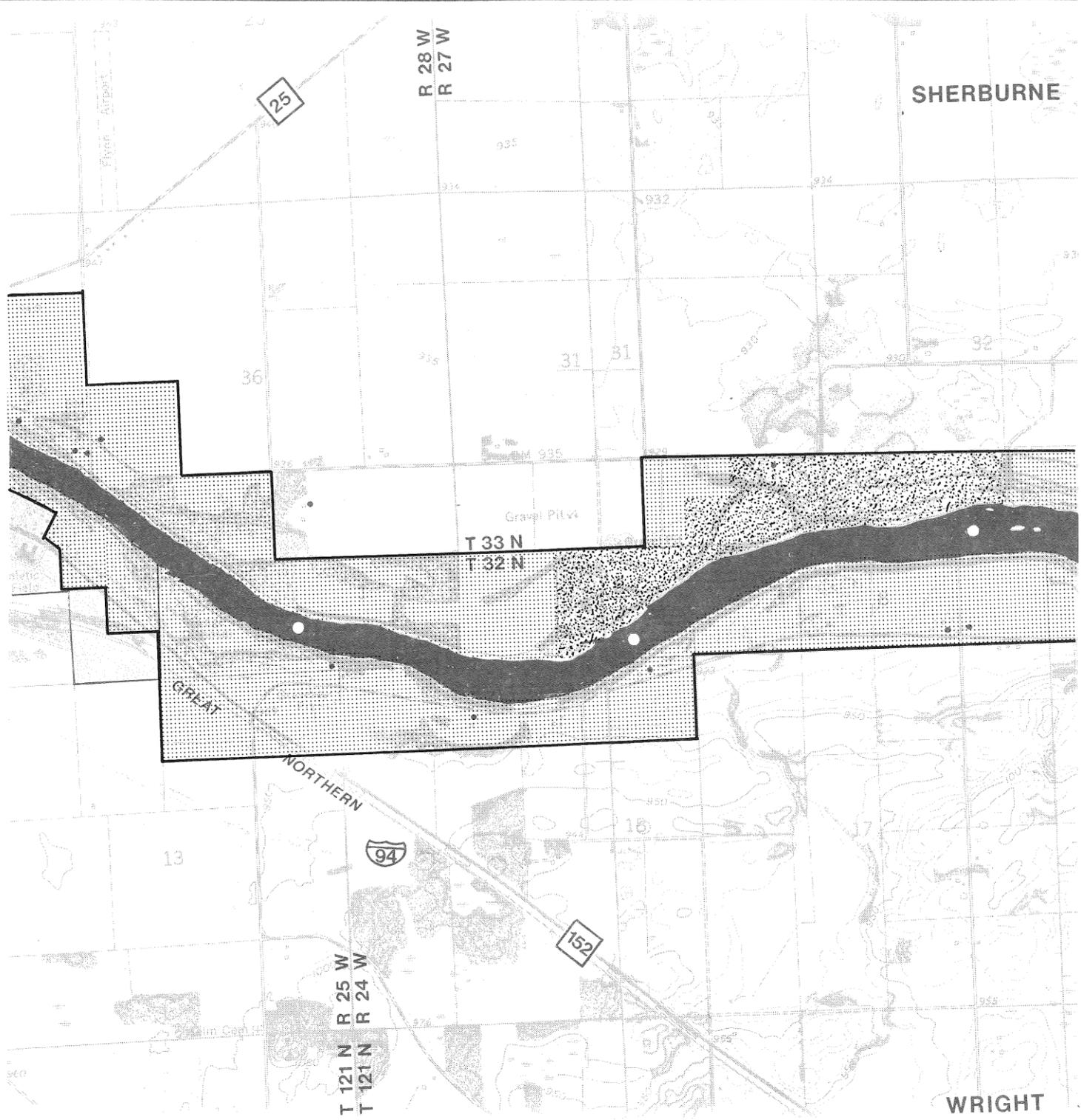
MANAGEMENT

	FEE TITLE
	SCENIC EASEMENT
	ZONING

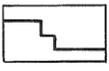
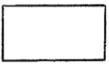
PLATE 5

scale:
1" = 2000'

St. Cloud
Clearwater
Monticello
Elk River
Anoka



LAND

	LAND USE DISTRICT
	
	PUBLIC OWNERSHIP

MANAGEMENT

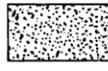
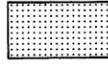
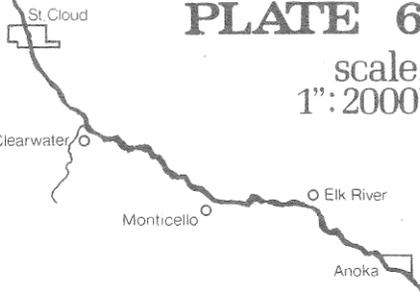
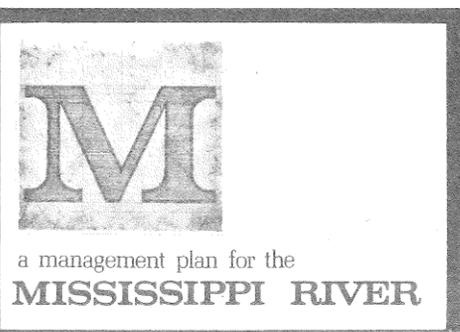
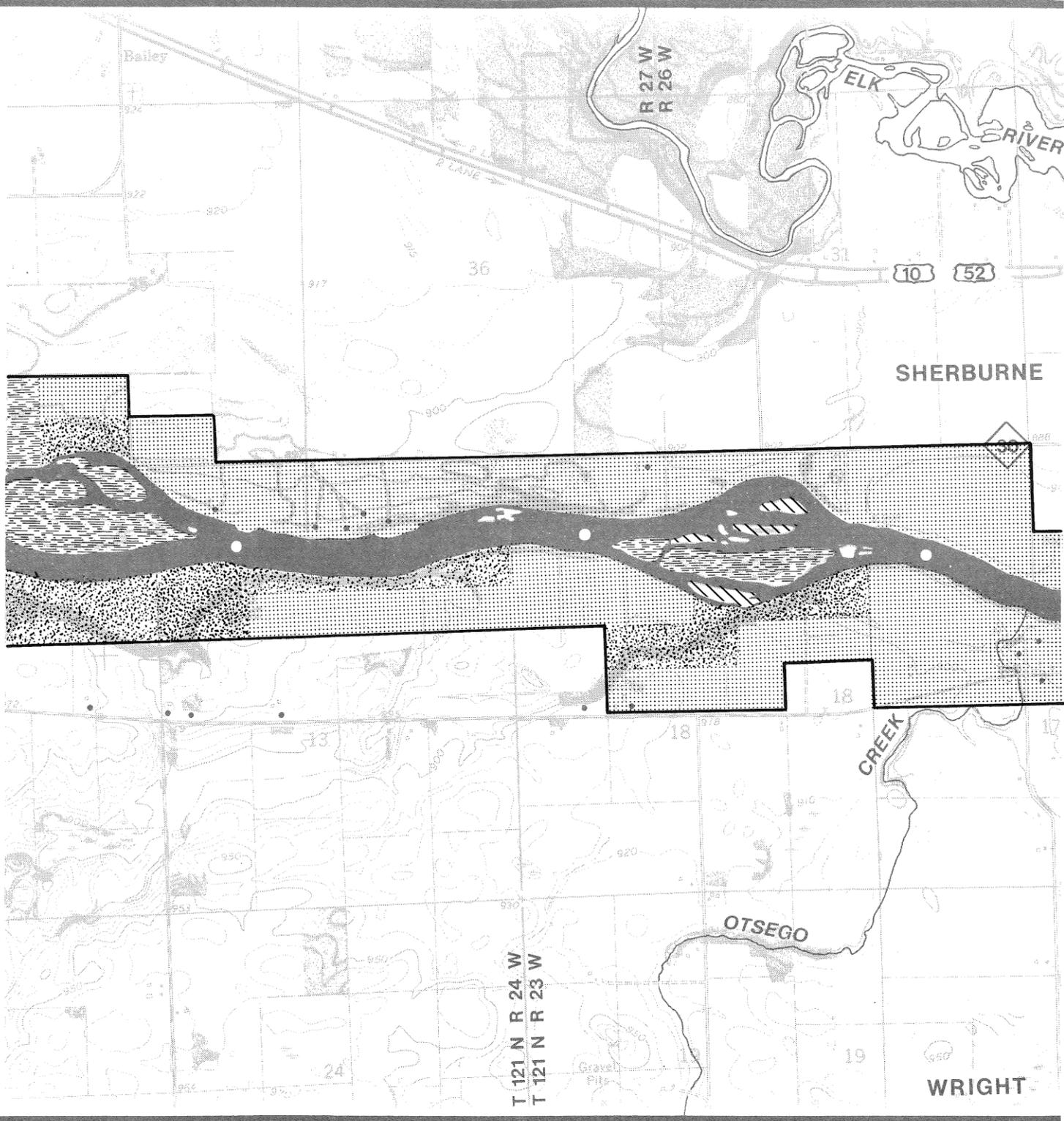
	FEE TITLE
	SCENIC EASEMENT
	ZONING

PLATE 6
scale:
1" : 2000'



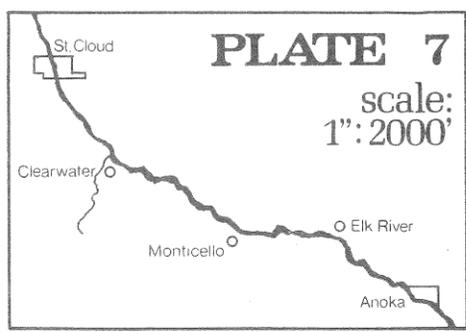


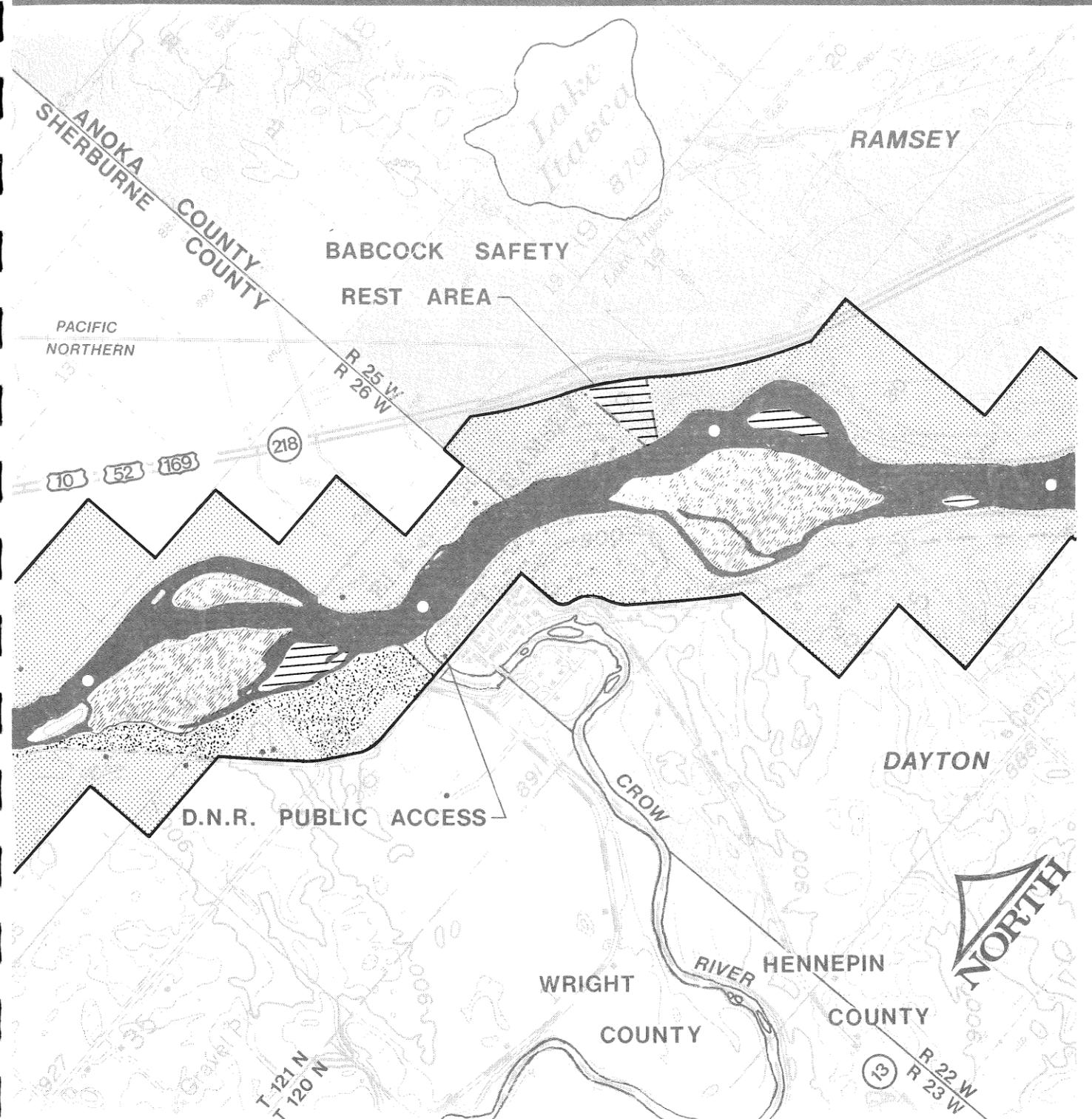
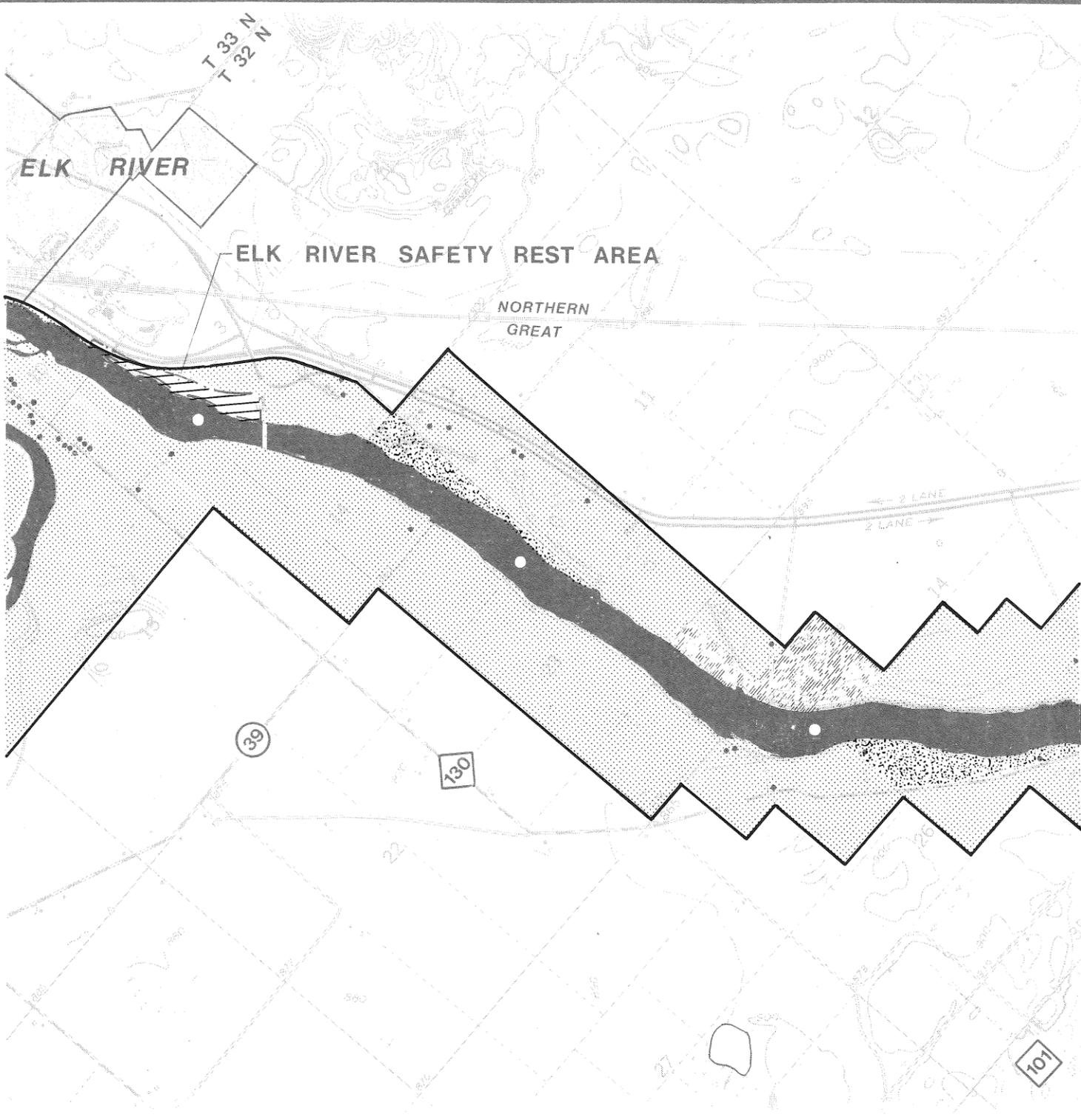
LAND

	LAND USE DISTRICT
	PUBLIC OWNERSHIP

MANAGEMENT

	FEE TITLE
	SCENIC EASEMENT
	ZONING





LAND

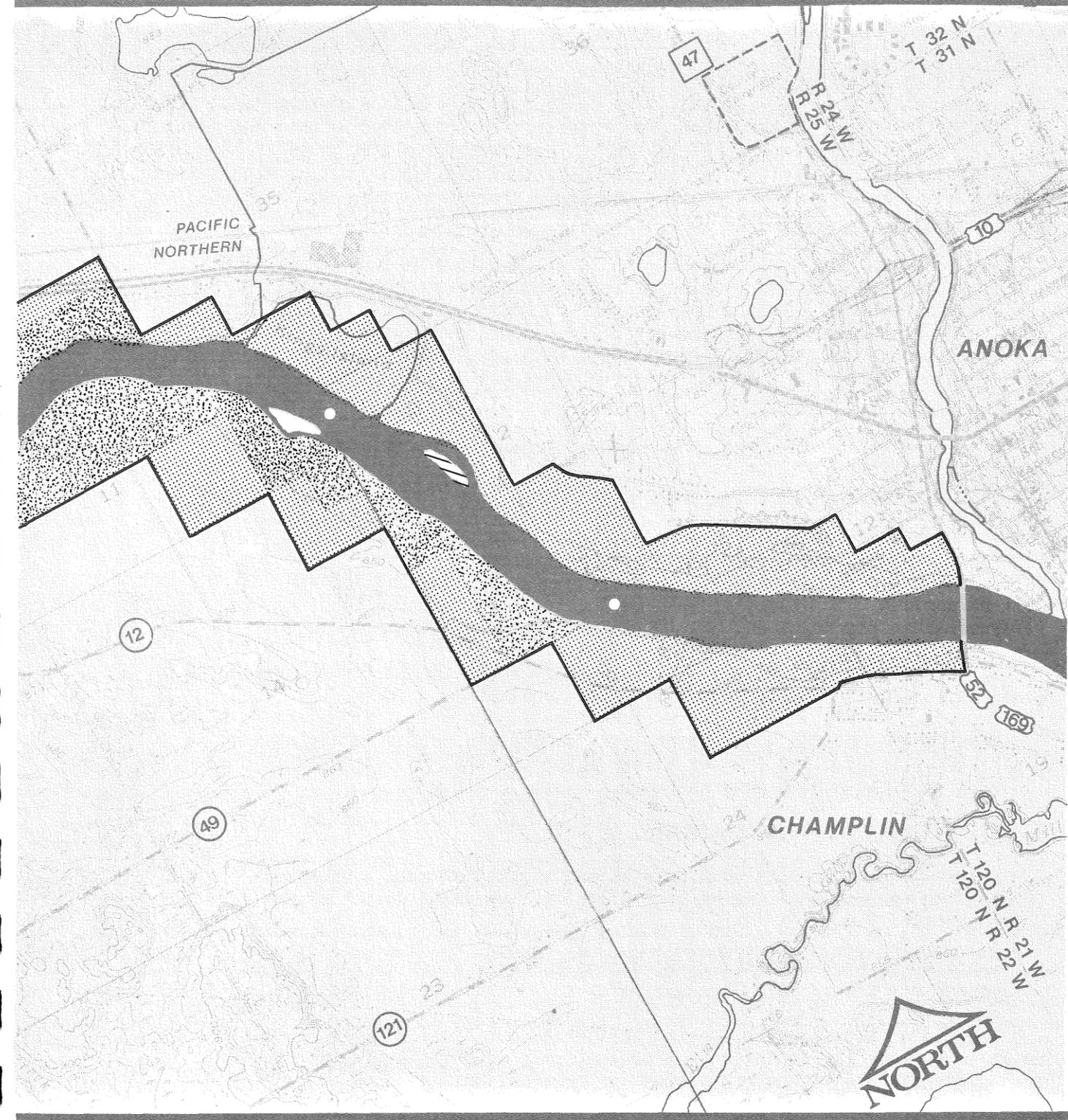
	LAND USE DISTRICT
	PUBLIC OWNERSHIP

MANAGEMENT

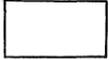
	FEE TITLE
	SCENIC EASEMENT
	ZONING

PLATE 8

scale:
1" : 2000'



LAND

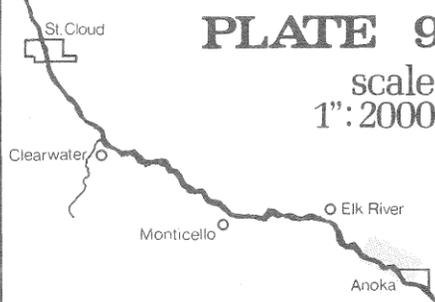
	LAND USE DISTRICT
	PUBLIC OWNERSHIP

MANAGEMENT

	FEE TITLE
	SCENIC EASEMENT
	ZONING

PLATE 9

scale:
1" : 2000'



LAND ACQUISITION

The Minnesota Wild and Scenic Rivers Act authorizes the Commissioner of Natural Resources in M.S.A. 104.34, Subdivision 2, to "promulgate statewide minimum standards and criteria for the preservation and protection of shorelands within the boundaries of wild, scenic and recreational rivers". These standards and criteria have been promulgated according to Chapter 15 procedures and are identified as Minnesota Regulations NR 78-81. Minnesota Regulations NR 79 provide the minimum land use controls for wild and scenic river land use districts.

In addition, the Commissioner of Natural Resources is authorized in M.S.A. 104.37 to acquire land or certain interests in land. It is stated: "To further the purposes of this act, the Commissioner of Administration, for the Commissioner of Natural Resources, may acquire the title, scenic easements or other interests in land, by purchase, grant, gift, devise, exchange, lease, or other lawful means." This does not authorize the Commissioner of Natural Resources to acquire land by eminent domain (condemnation).

The Land Management Maps, Plates 1 - 9, show the lands in public ownership (based on Rockford Plat Books, Highway Department Municipality Maps, and other miscellaneous maps and data), lands recommended for acquisition of fee title or scenic easement, and those lands to which the land use controls will be applied. While land use controls will be applied to all lands private and public (except federally owned lands) within the scenic and recreational river land use districts, the land management maps show the private property to which land use controls only will be applied. The specific land use controls recommended to be adopted are referred to in the Rules and Regulations Section and Minn. Regs. NR 78-81.

In accordance with M.S.A. 104.37, some of the criteria for the selection of lands to be acquired in fee are provided as follows:

1. Lands which possess outstanding scenic, natural, recreational, scientific, historical and other similar values which can best be protected by placing such lands in public ownership.
2. All islands in private ownership.
3. Lands which would consolidate existing "blocks" of public ownership providing for the recreational use of such lands and the preservation of its natural character.
4. Lands to be used for active recreation as recommended in the recreation management plan. This does not refer to existing recreation area.

Lands not meeting these specific criteria, but still capable of being managed so as to further the intent and purpose of this management plan and the Wild and Scenic Rivers Act, may be considered for acquisition.

Scenic Easements

The Wild and Scenic Rivers Act also specifically authorizes the acquisition of scenic easements along designated Wild, Scenic and Recreational Rivers. As defined in the Act, a scenic easement means: "an interest in land, less than the fee title, which limits the use of such land for the purpose of protecting the scenic, recreational, or natural characteristics of a wild, scenic or recreational river area. Unless otherwise expressly and specifically provided by the parties, such easement

shall be (a) perpetually held for the benefit of the people of Minnesota, (b) specifically enforceable by its holder or any beneficiary; and (c) binding upon the holder of the servient estate, his heirs, successors and assigns. Unless specifically provided by the parties, no such easement shall give the holder or any beneficiary the right to enter on the land except for enforcement of the easement."

There are 5 primary advantages to acquisition of scenic easements:

1. By limiting only continued development of the parcel, it permits a continuation of pre-existing, often economically valuable, uses while leaving the management and maintenance of the lands as a private responsibility.
2. Monetary savings are realized from compensating for less than full fee value, and still accomplishing the management objectives.
3. The land remains on the tax rolls and produces revenue for the local taxing authority.
4. It is flexible and allows retention of property rights not in conflict with preservation objectives, in the public interest.
5. The easement interest is in perpetuity, it offers permanency which land use controls cannot.

In accordance with M.S.A. 104.37, some of the criteria for the selection of lands on which to acquire scenic easements are provided as follows:

1. Lands highly visible from the water surface.
2. Lands adjacent to, or across the river from, state-owned parks, forests, and other units.
3. Environmentally-sensitive lands which would be adversely effected by development.
4. Lands which possess outstanding scenic, scientific, natural, historical, and other similar values.

Scenic easement acquisition will be dependent on willing sellers, as will all acquisition. The lands recommended for scenic easement acquisition and fee title acquisition within the proposed scenic and recreational land use districts are shown on the Land Management Maps, Plates 1 - 9. Because acquisition of land, or interest in land, is from willing sellers, at the appraised value, some lands recommended for scenic easement acquisition may be purchased in fee title. This change from the recommended acquisition would be based on the mutual agreement by and between the State of Minnesota and the landowners(s). Furthermore, additional lands, or interests in land, may be purchased in order to further the policies established in Chapter 271 and this management plan.

Land Exchange

Land exchanges will be expedited, wherever feasible, in order to acquire lands within the land use districts boundaries. These exchanges will be expedited in the manner prescribed by state law.

However, land exchanges will not be recommended if such exchanges would adversely effect other Department of Natural Resources management programs.

Figure A.



RECREATION DEVELOPMENT

Public Use

As referred to in this management plan, the term "public use" is concerned solely with the use of public lands and waters within the designated river land use district. It cannot be overemphasized that private lands will remain private in every sense.

The nature of public use of the river is expected to remain essentially the same as at present. Major recreational uses of the river will probably continue to be fishing, boating, and canoeing. On public lands adjacent to the river, picnicking and related activities should continue. Canoe camping will be provided for at designated water access only campsites, as described in the recreation management section of the plan.

Proposed Recreational Development

In addition to the existing public recreational facilities, the plan recommends the development and maintenance of new river-oriented recreational facilities. There are three types of river-oriented developments recommended in this plan: primitive canoe campsites, rest areas, and river orientation centers. Each of these recreational facilities are described and illustrated below.

The primitive canoe campsite is designed to accommodate overnight use by river users. As the name implies, the actual development of the site will be kept to the minimum necessary to insure public health and safety and to have the least intrusive impact on the natural surroundings. These sites would include such things as tent pads, fire rings or grates, rustic tables, and pit type privy where feasible. The campsite will be a cluster of 2 - 3 camping units as shown in Figure # 1. These sites will be constructed so that they can accommodate more than one party and still provide privacy for the individual units.

Primitive rest areas are similar in nature to the campsites, except that overnight camping will not be provided for (see figure #2). Clearing of brush will be kept to the absolute minimum necessary to accommodate such things as rustic tables and benches, fire rings or grates, and pit type privy where feasible. These areas are intended primarily for day users, such fishermen or canoeists, who may use them for a rest stop or for picnicking.

The third type of public recreational facility recommended in the Recreation Management Plan is the river orientation center. Three river orientation centers are proposed for construction. One is proposed to be located at the northern end of the study area at Riverside Park in St. Cloud. A second center is proposed for the Stickney Highway Safety Rest Area at Clearwater, and a third is proposed for the Department of Natural Resources public access at Dayton. These centers would include informational display boards, maps, and informational materials. They will be unattended, and will be used to inform the river user of the regulations relating to the use of public lands and waters. Informational brochures related to the river may be available at these centers. The display boards will show the locations of the public accesses, campsites, and other lands available for public use. One of the main objectives of these centers is to inform the user that lands not specifically identified as public, are not to be used without the landowner's permission. A design for a typical river orientation center is shown in figure # A.

The specific locations of all proposed public recreational facilities are shown on the Recreation Management Maps, Plates 1 - 9.

Maintenance

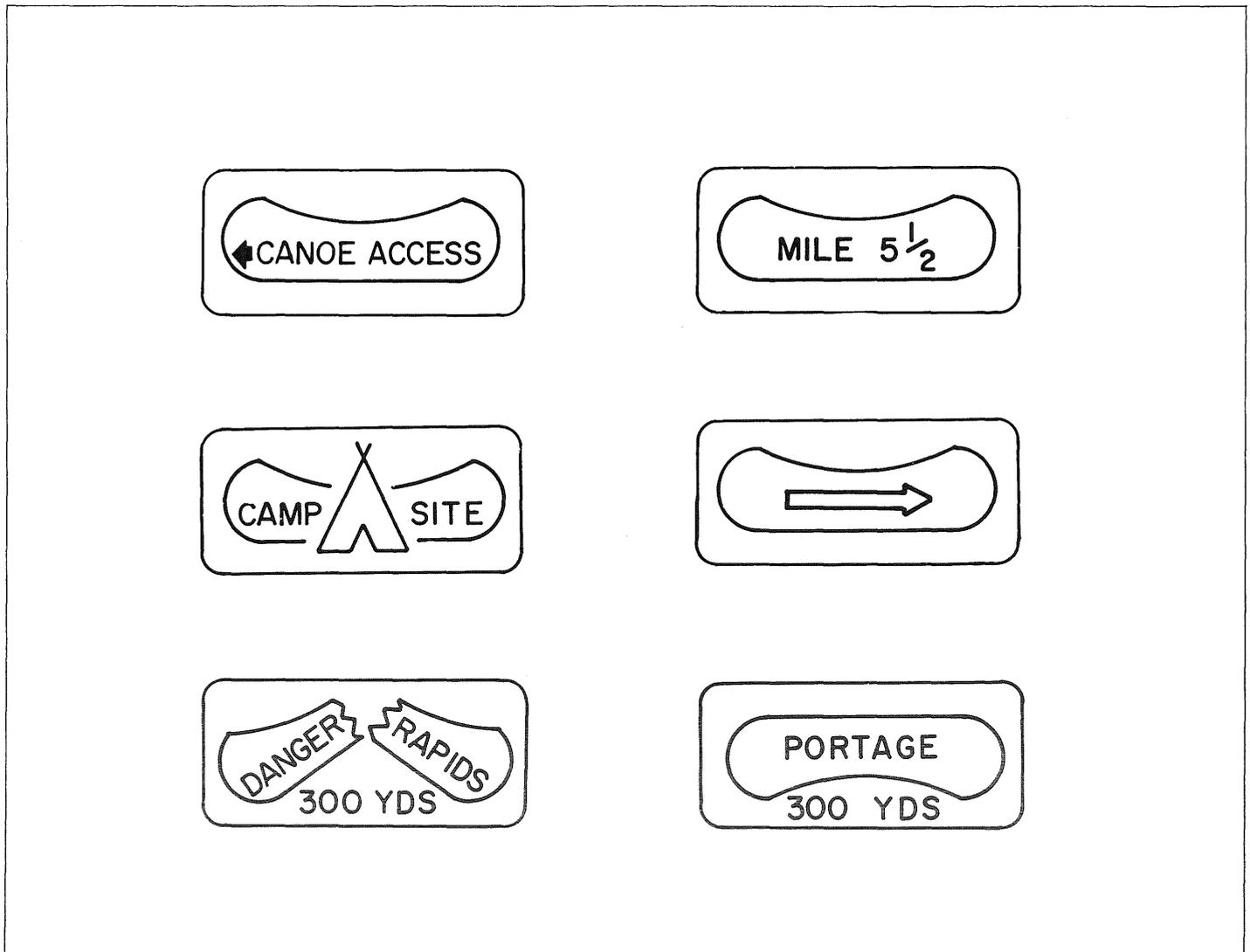
An integral part of any recreation management plan is the maintenance of public facilities. It is assumed that private landowners will maintain their property, since it is in their interest to do so. The provisions of Minnesota Regulations NR 80 are designed to minimize the extent of maintenance by controlling public use. The Department of Natural Resources has, through public education programs, informed recreationists about the proper use of public land and water and the respect for private property. While most river users are very conscientious about such use, there will be a need to maintain the recreational facilities. The

Division of Parks and Recreation will have general responsibility for the maintenance of these Department of Natural Resources facilities. The other related responsibilities are outlined in the Administrative Action Plan. Each unit of government will be responsible for the maintenance on their respective lands, as they have in the past.

Signs

As authorized under the State Canoe and Boating Route Legislation (M.S.A. 85.32), the Department of Natural Resources can, in cooperation with local units of government and private individuals and groups when feasible, mark points of interest, portages, campsites, and all dams, rapids, waterfalls, whirlpools, and other serious hazards. Sites available for public use will be identified. The placement of signs will be kept to a minimum necessary to provide the user with the information for a safe, interesting trip. The river oriented recreational signs are of the wood-routed variety, brown and yellow in color. Examples of some of these river signs are provided below.

Figure B.



Bike Trail

With the increasing interest in, and need for, energy conservation, a number of low-energy consumption type recreational activities are becoming increasingly popular. One of these activities is bicycling.

A number of state agencies and private groups are in the process of assessing the present resources available for bicycling throughout the state, including long distance routes along highways. One of the routes under study is between the Twin Cities and St. Cloud. This route would parallel the Mississippi River along existing state and county roads.

One tentative route that may be proposed as a designated bicycle route is as follows:

Champlin to Dayton - Hennepin County State Aid Highway #12.

Wright County State Aid Highway #36 to junction with Trunk Highway #101.

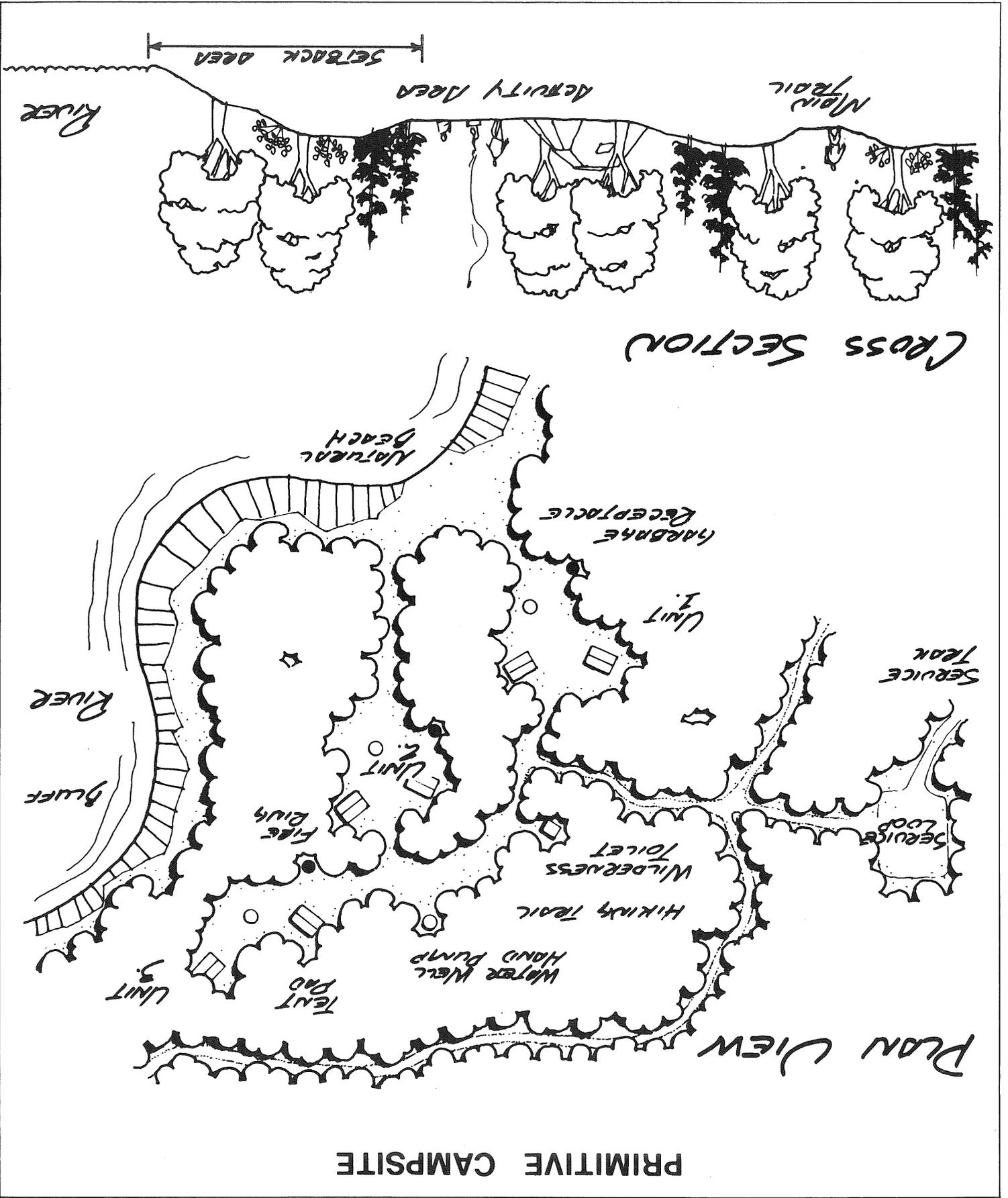
Trunk Highway #101 to junction with Wright County State Aid Highway #39.

Wright County State Aid Highway #39 to Monticello and junction with Trunk Highway #152.

Trunk Highway #152 to St. Cloud.

(Much of the through traffic between the Twin Cities and St. Cloud is now carried by Interstate 94 and U.S. Highway 10 and 52).

This route closely approximates that of the proposed Great River Road. If this system of highway is determined to be suitable for such a bike route, it may be appropriately marked to provide guidance for the users.



PRIMITIVE CAMPSITE

PLAN VIEW

CROSS SECTION

RIVER

ACTIVITY AREA

MAIN TRAIL

SEIBACK AREA

NATURAL BEACH

HARBOR RECEPTACLE

UNIT 1

SERVICE TRAIL

RIVER

BLUFF

UNIT 2

FIRE RING

WILDERNESS TOILET

SERVICE TRAIL

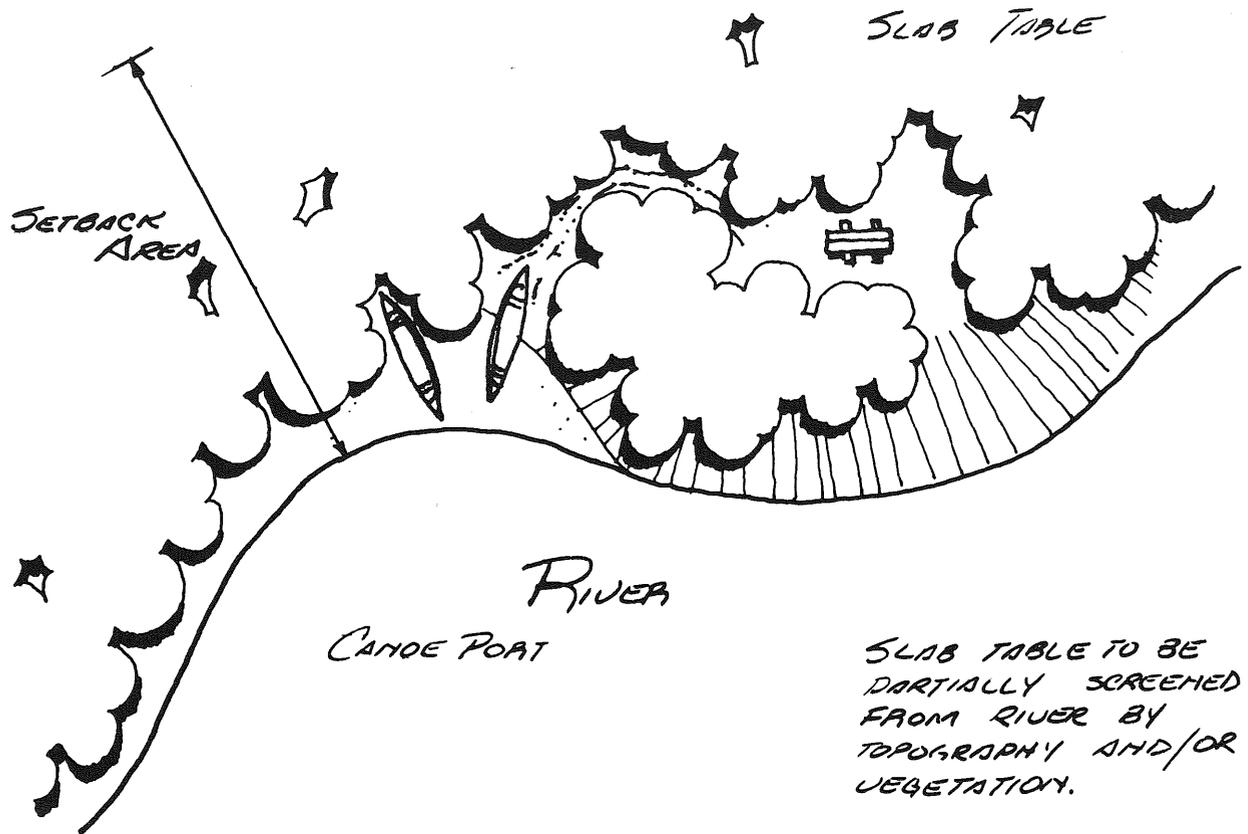
HIKING TRAIL

WATER WALL HAND PUMP

UNIT 3

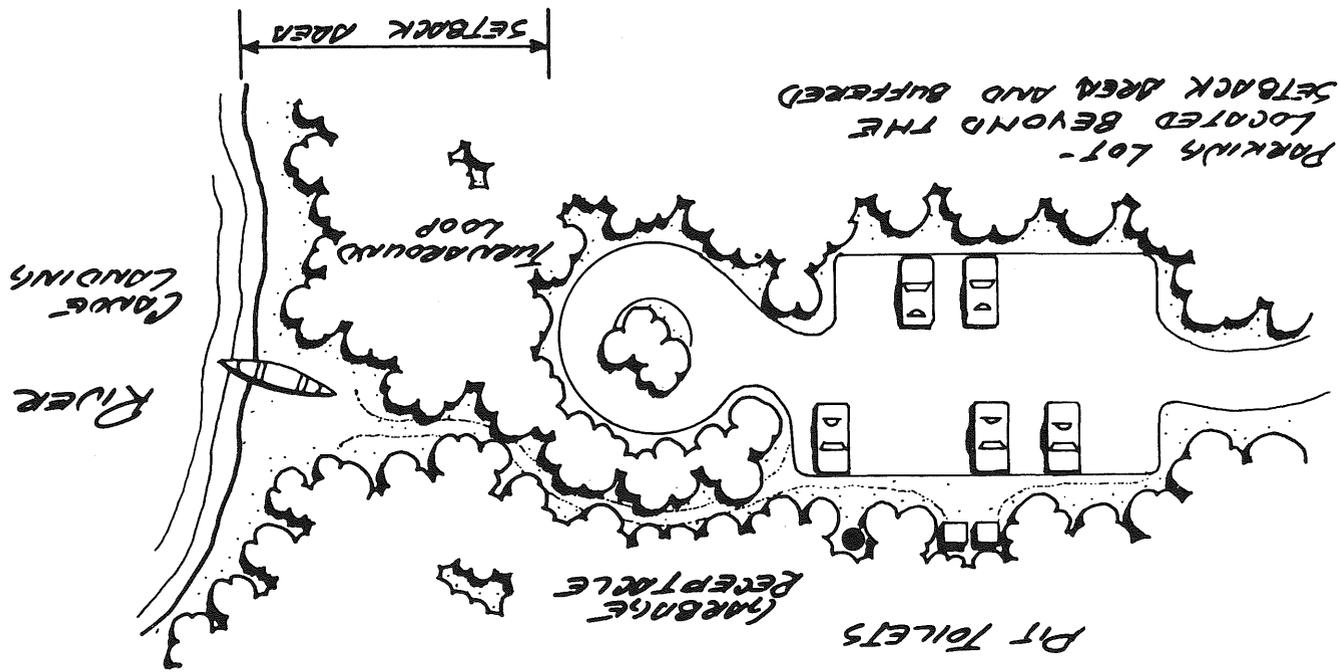
TENT PAD

REST AREA

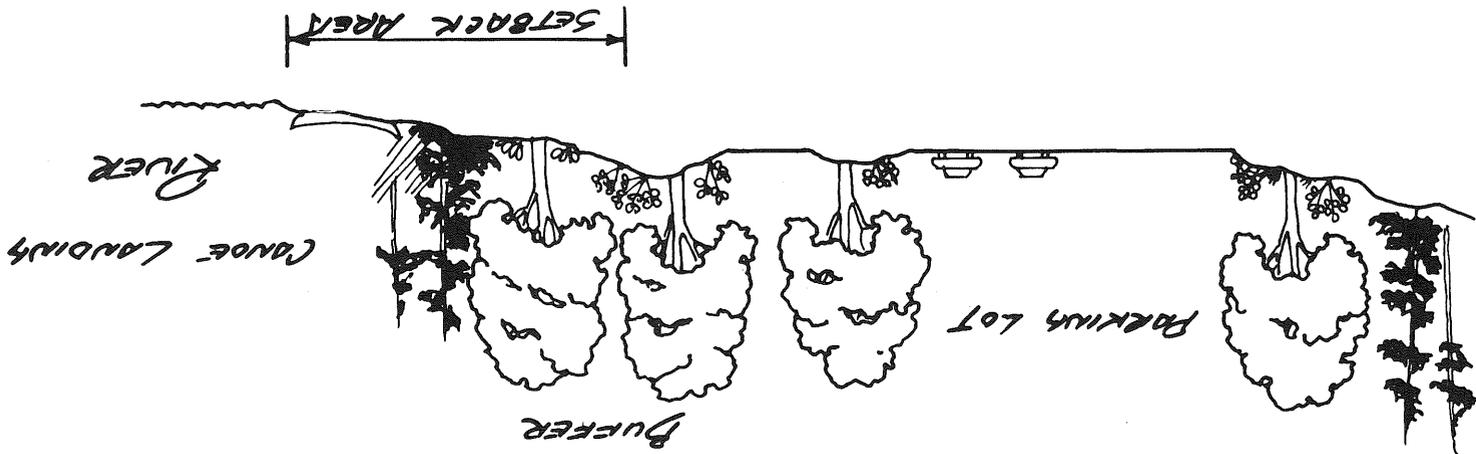


CANOE ACCESS

PLAN VIEW

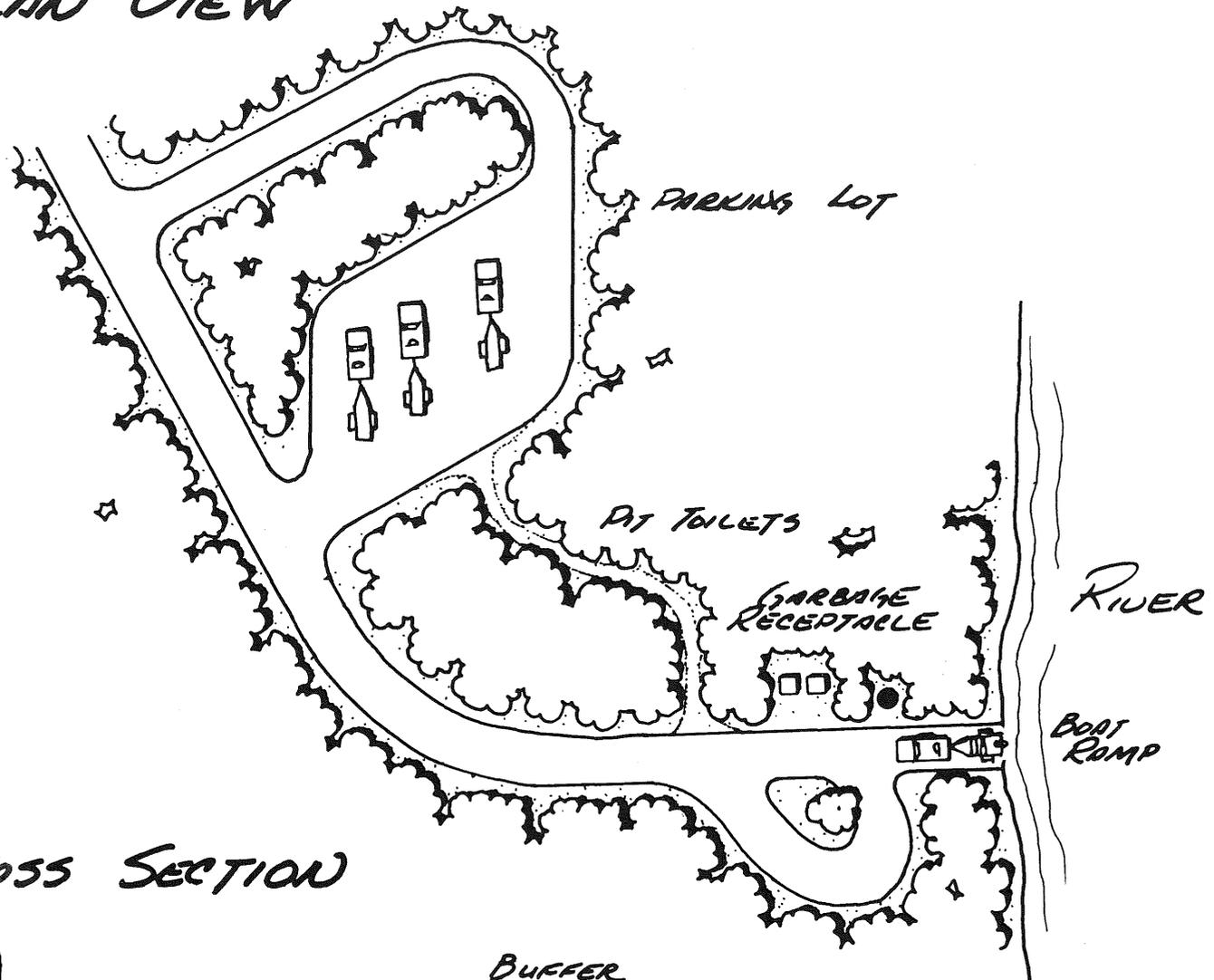


CROSS SECTION

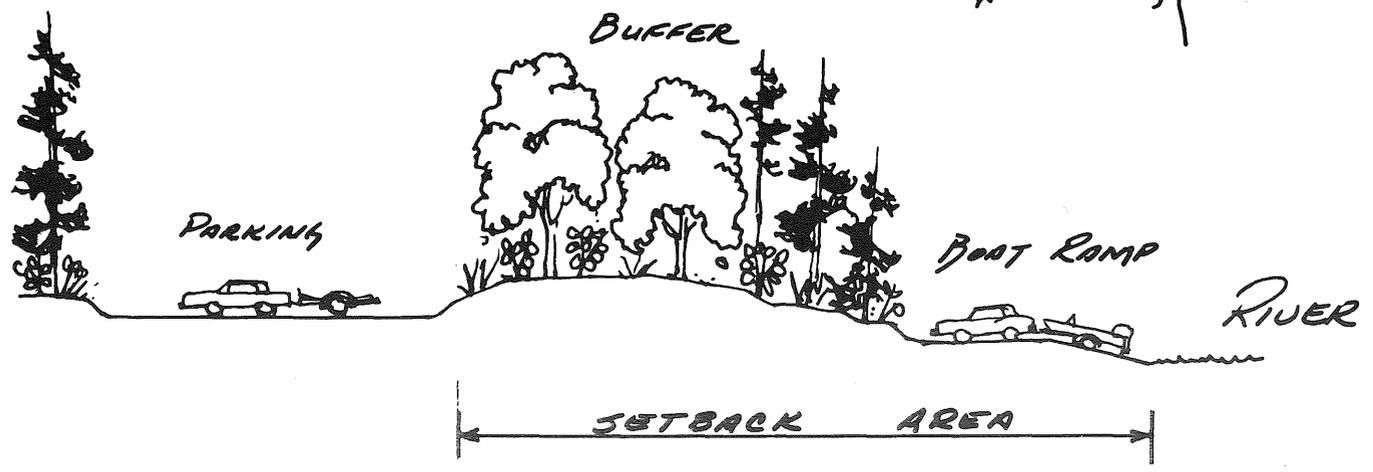


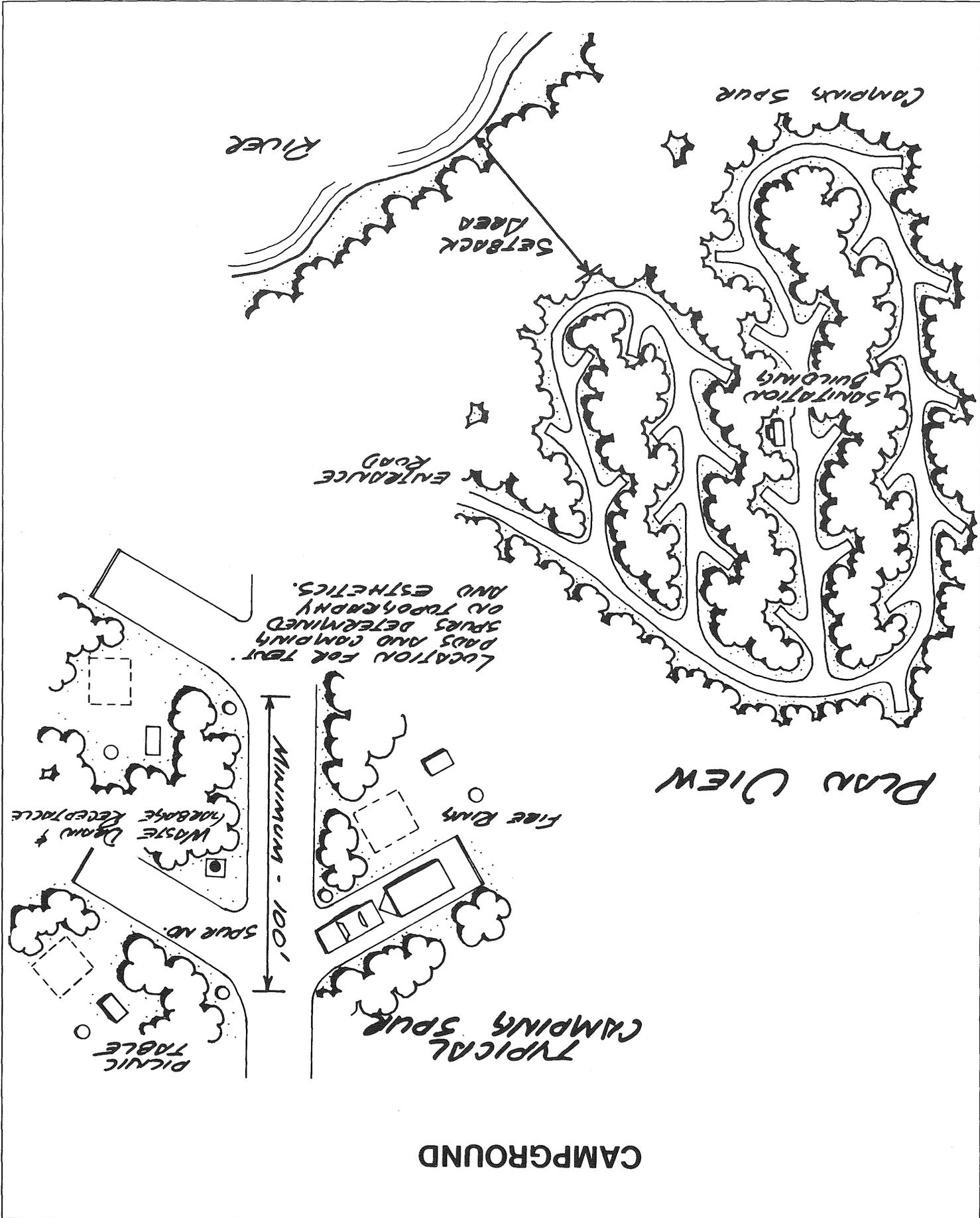
BOAT ACCESS

PLAN VIEW



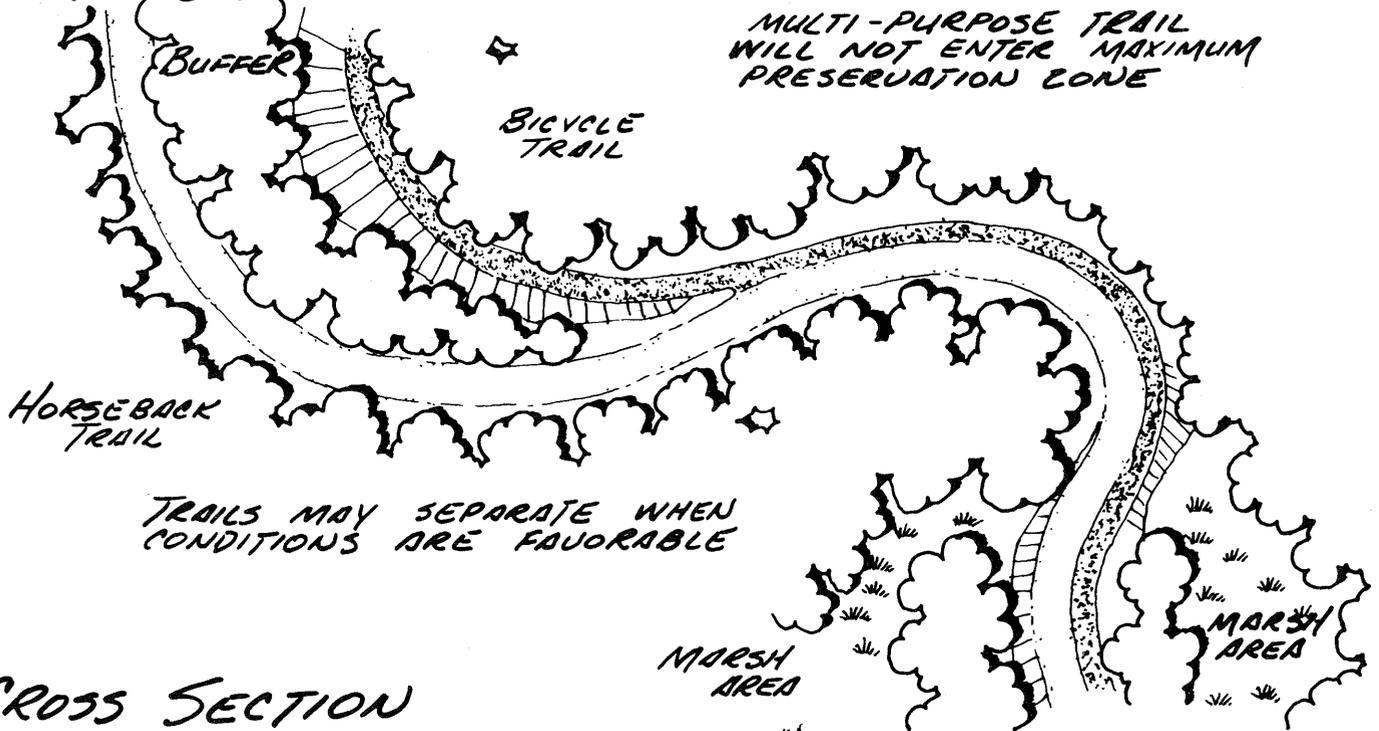
CROSS SECTION



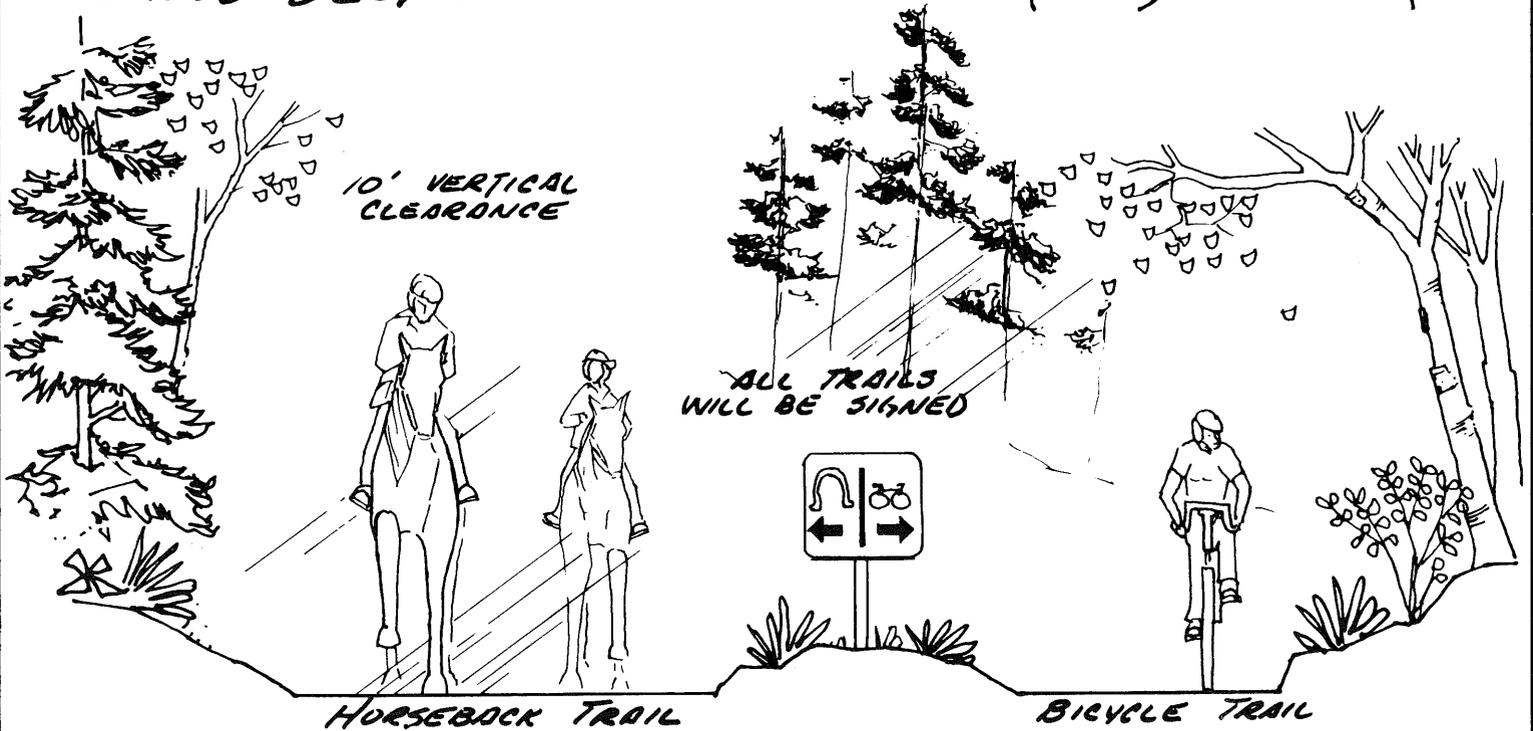


TRAIL DESIGN TYPICAL

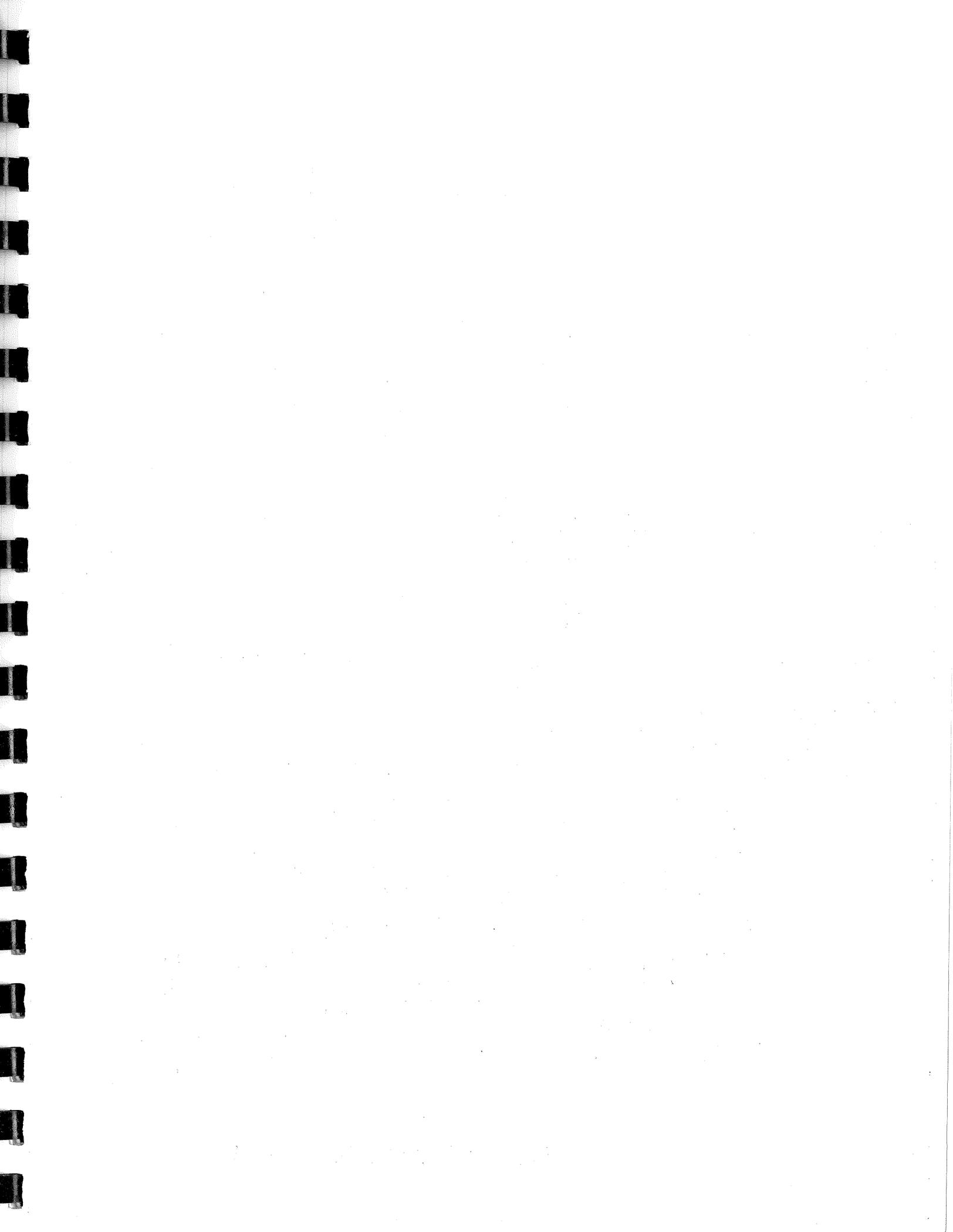
PLAN VIEW



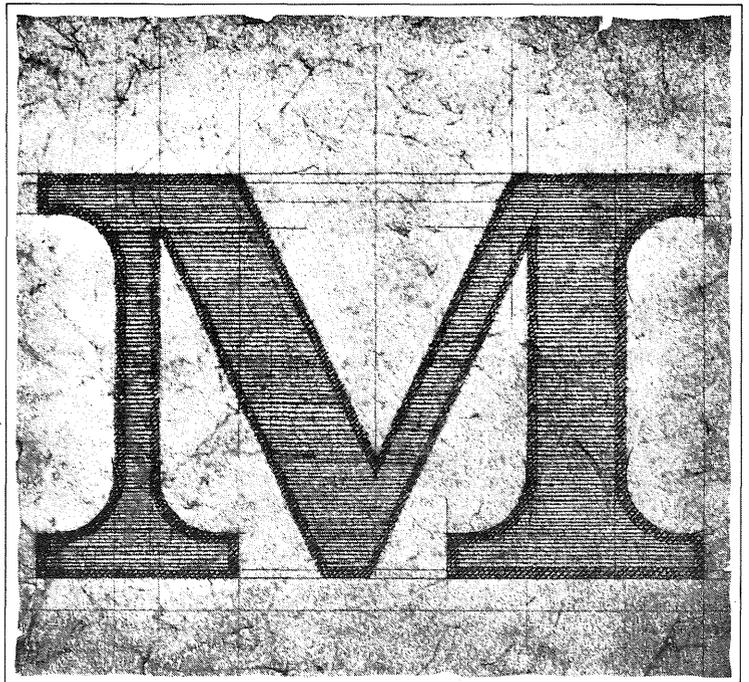
CROSS SECTION

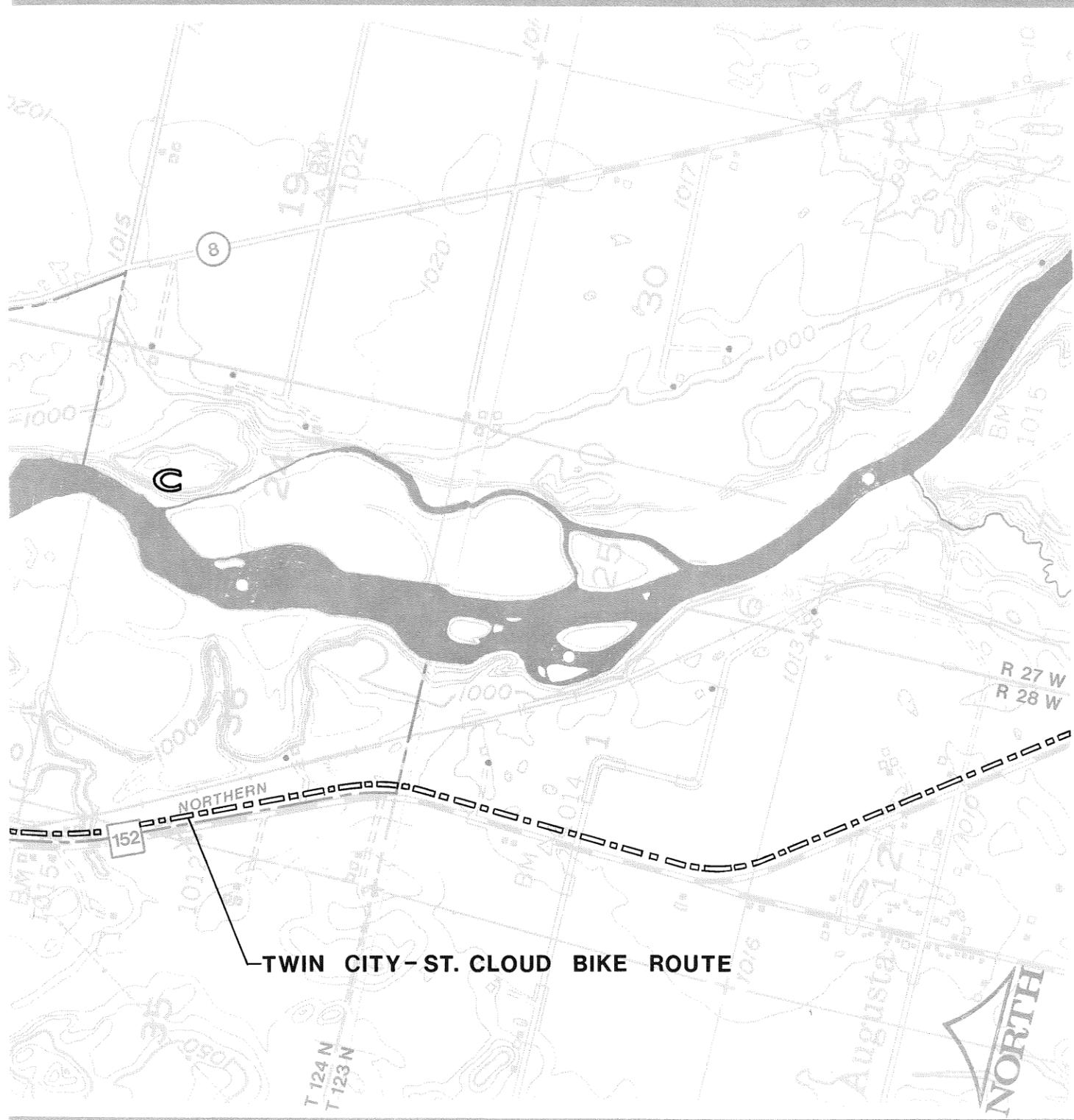
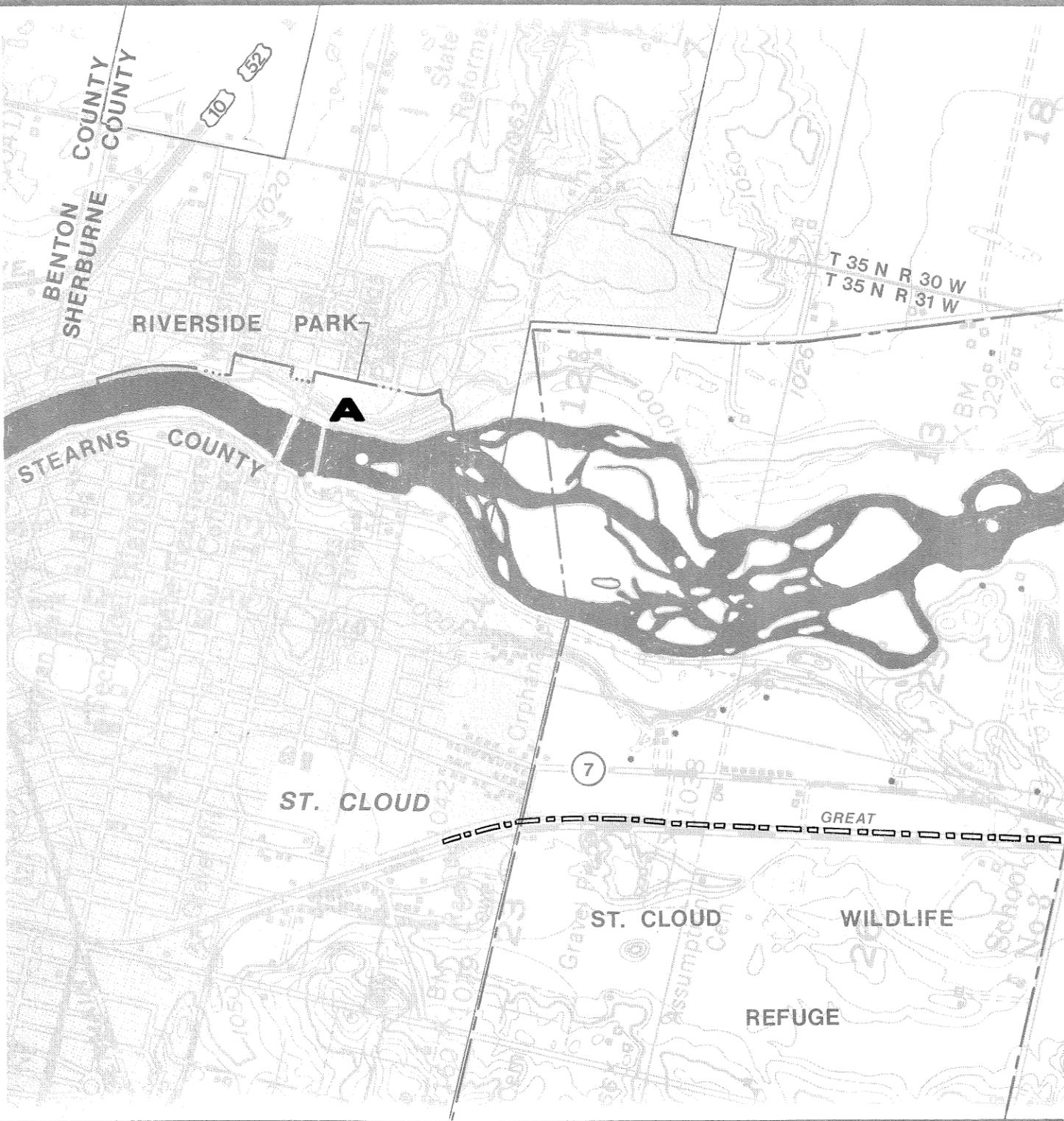


WIDTH OF EACH TRAIL WILL DEPEND
ON THE ENVIRONMENTAL CHARACTERISTICS
OF EACH SITE.



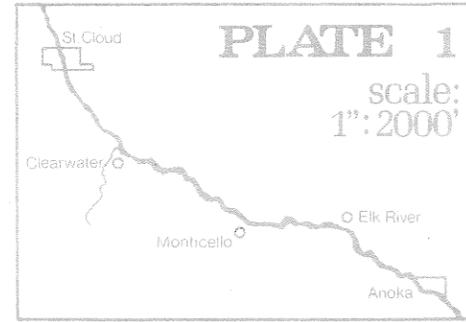
**RECREATION
MANAGEMENT**

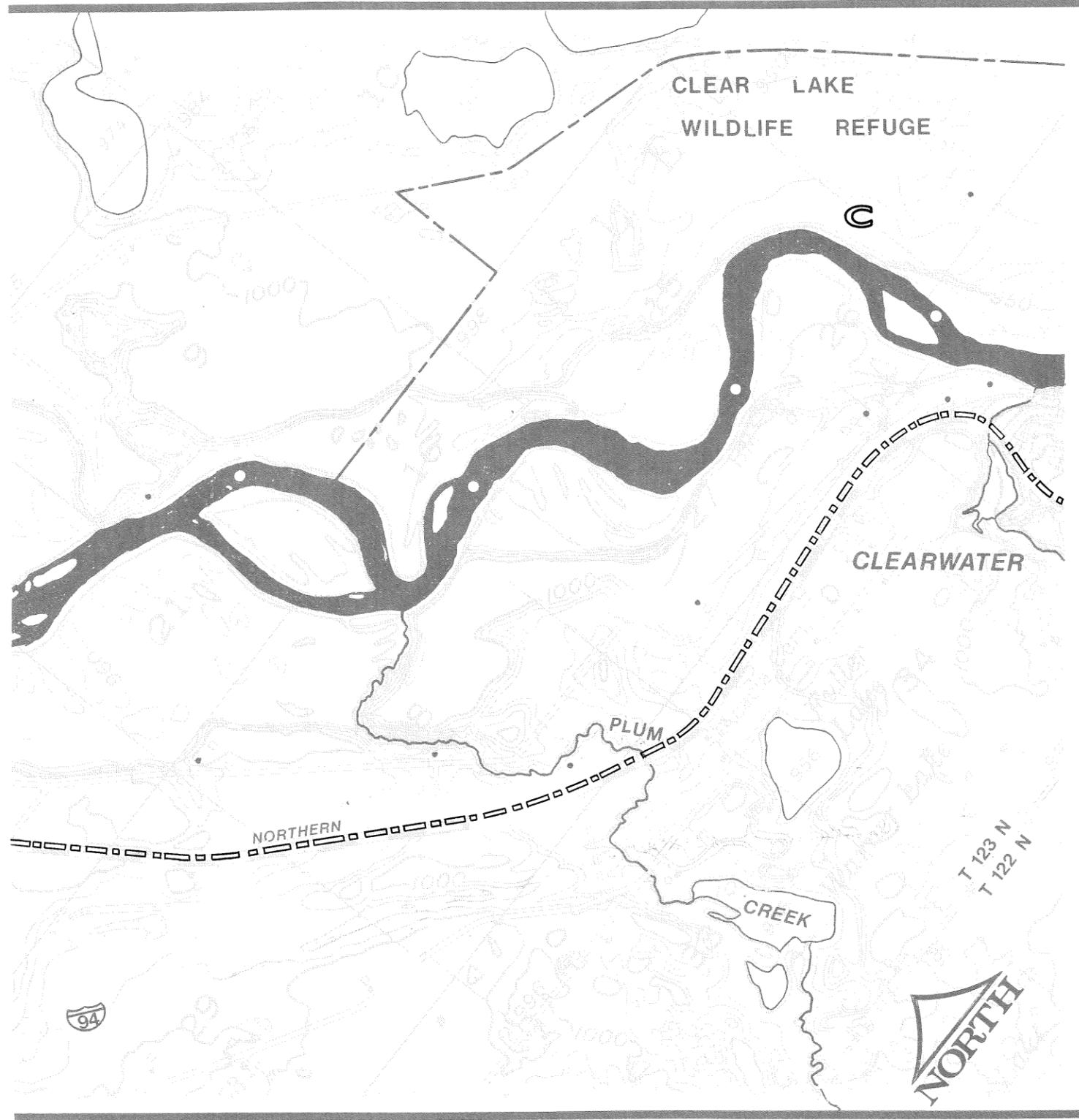
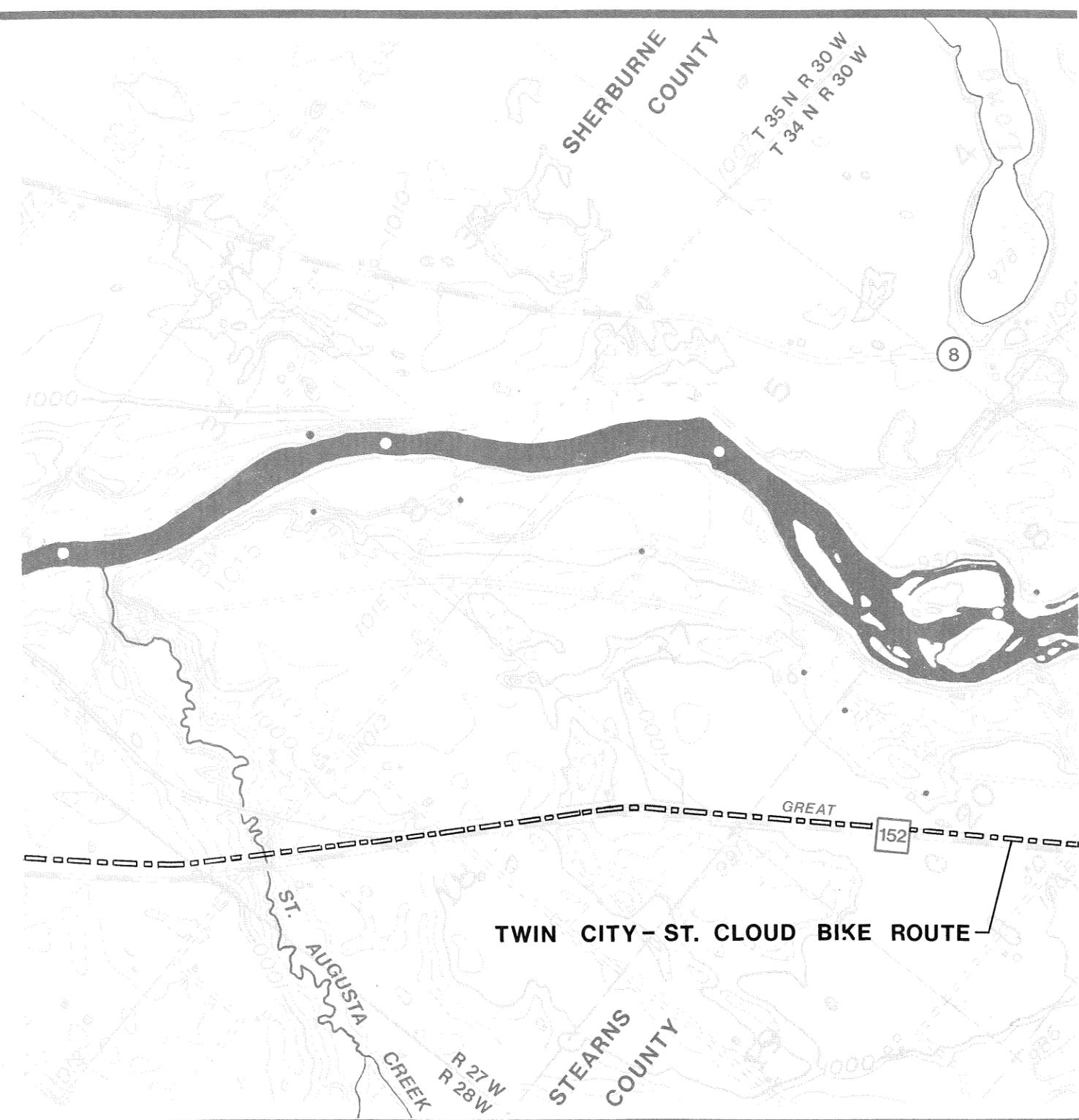




RECREATION		
PROPOSED	EXISTING	FACILITY
P	P	PORTAGE
A	A	ACCESS
C	C	CANOE CAMPSITE
H	H	HIKING CAMPSITE

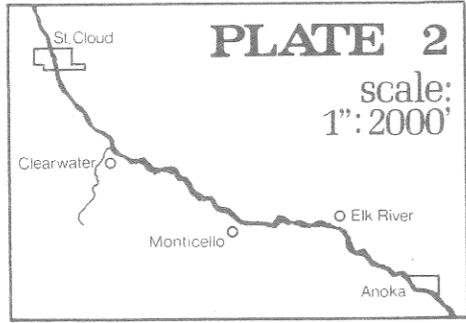
MANAGEMENT		
PROPOSED	EXISTING	FACILITY
R	R	REST AREA
□□□□	HIKING TRAIL
□□□	- - - -	MULTI-USE TRAIL
☆	★	HISTORIC SITE

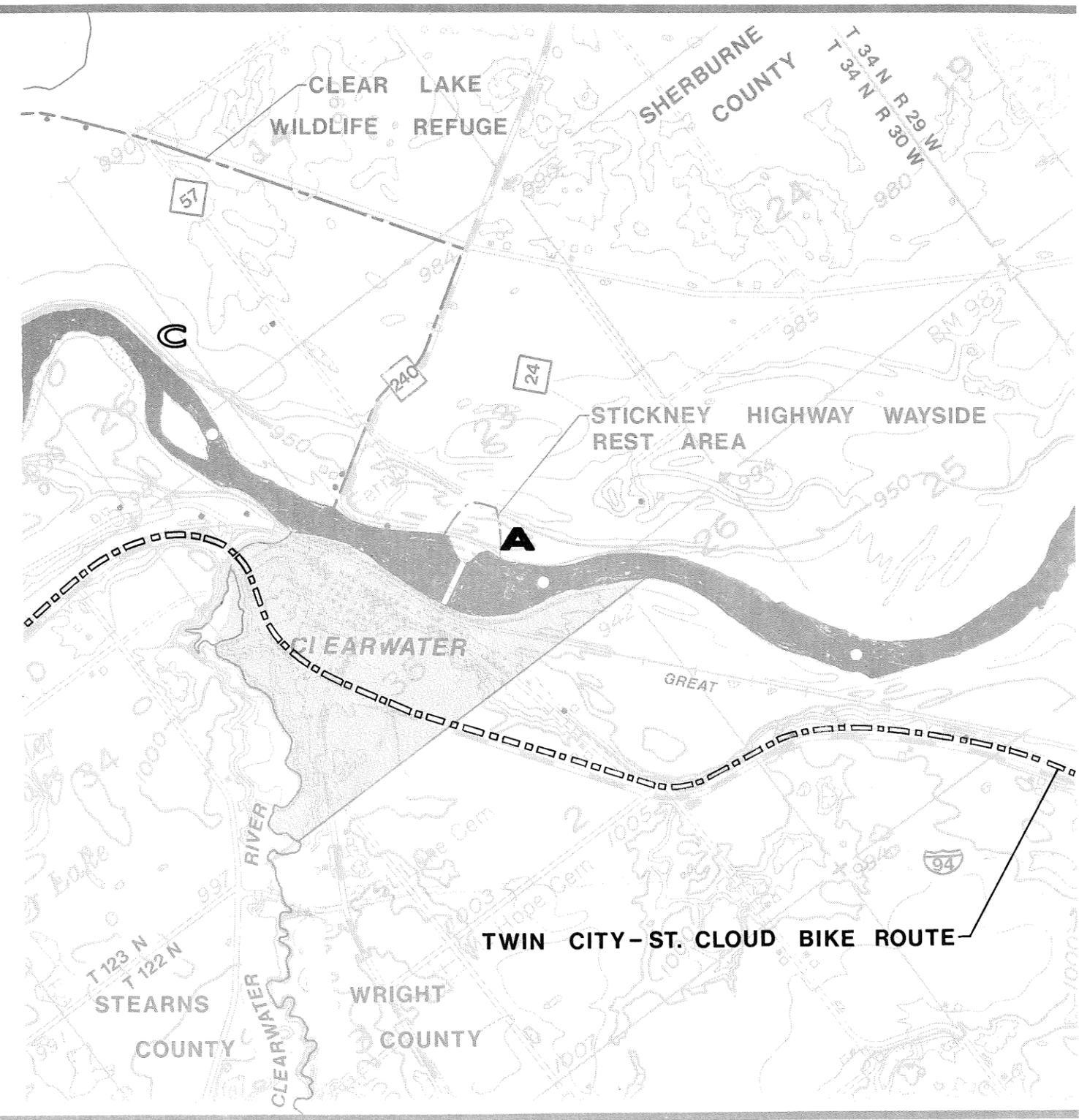




RECREATION		
PROPOSED	EXISTING	FACILITY
P	P	PORTAGE ACCESS
A	A	CANOE CAMPSITE
C	C	HIKING CAMPSITE
H	H	

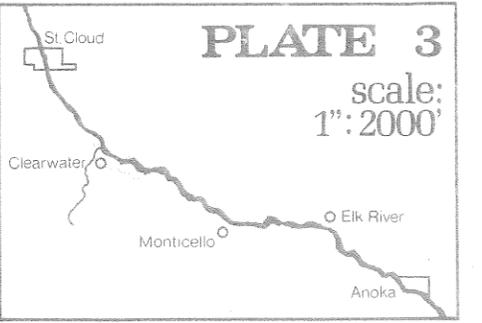
MANAGEMENT		
PROPOSED	EXISTING	FACILITY
R	R	REST AREA
□□□□	HIKING TRAIL
□□□□	- - - -	MULTI-USE TRAIL
☆	★	HISTORIC SITE

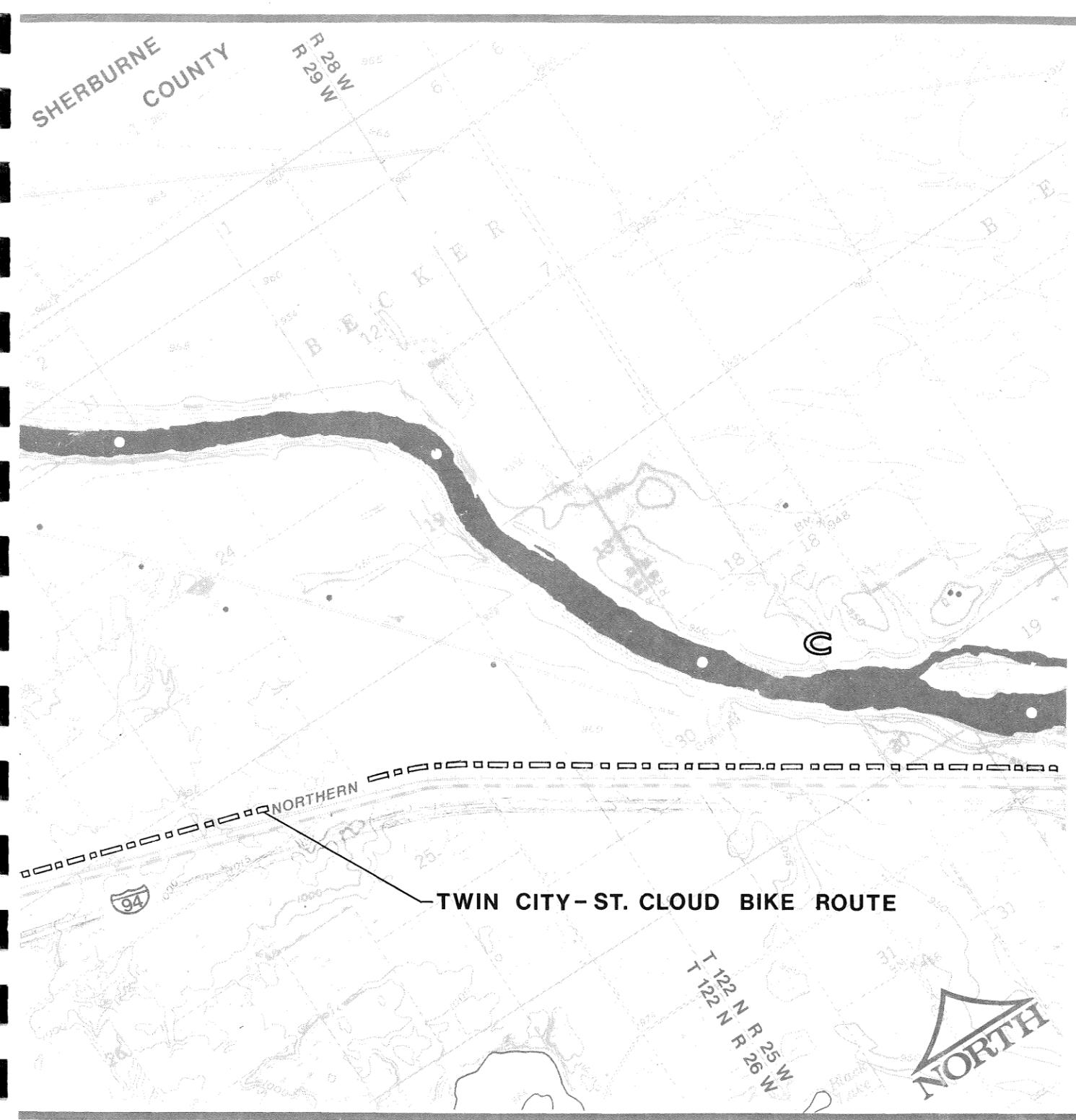




RECREATION	
PROPOSED	EXISTING
P A C H	P A C H
	PORTAGE ACCESS
	CANOE CAMPSITE
	HIKING CAMPSITE

MANAGEMENT		
PROPOSED	EXISTING	FACILITY
R	R	REST AREA
□□□□	HIKING TRAIL
□□=	-.-.-	MULTI-USE TRAIL
☆	★	HISTORIC SITE



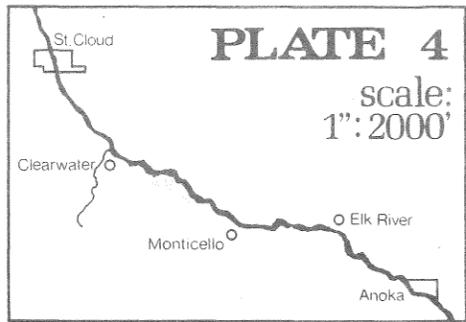


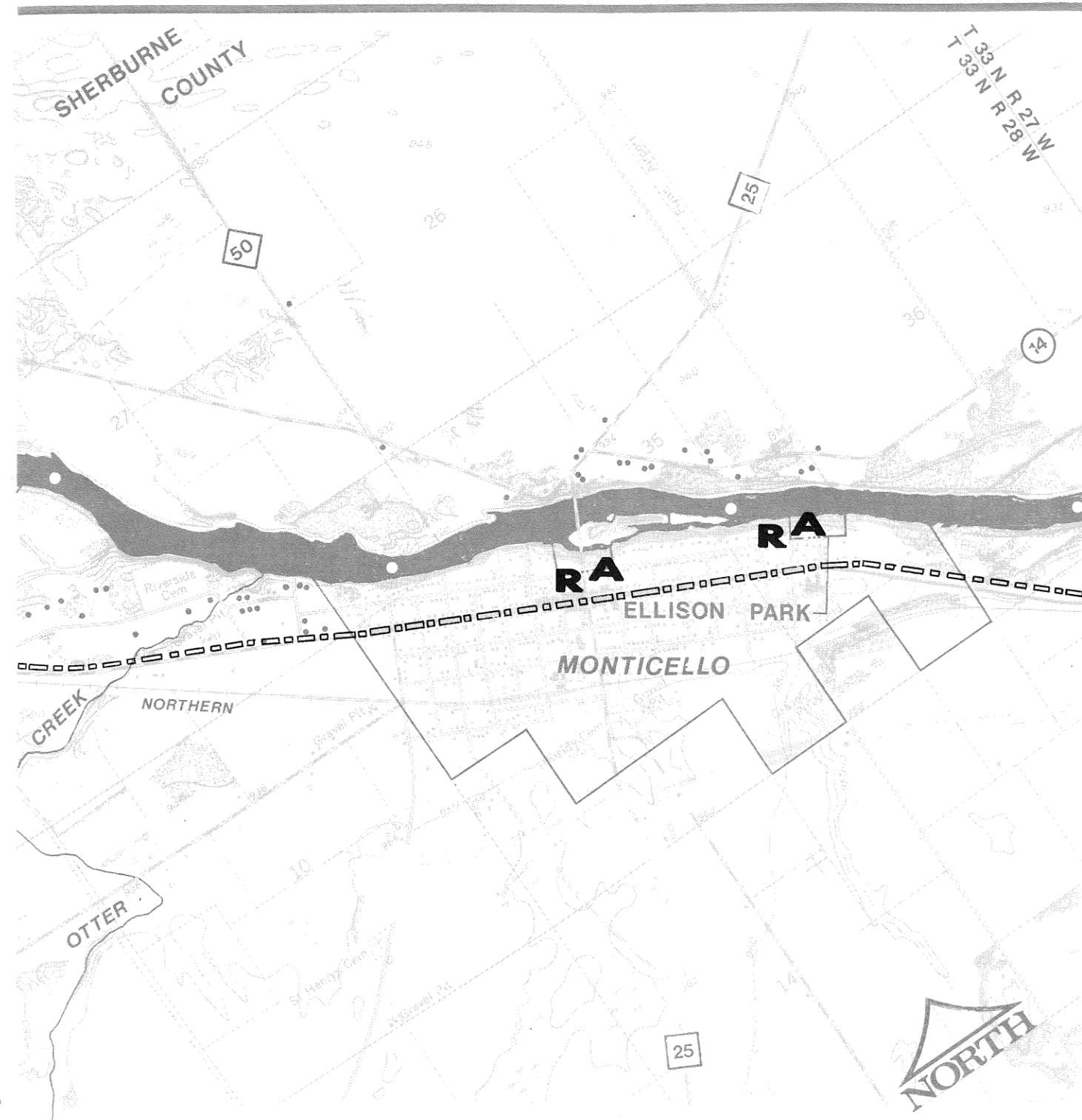
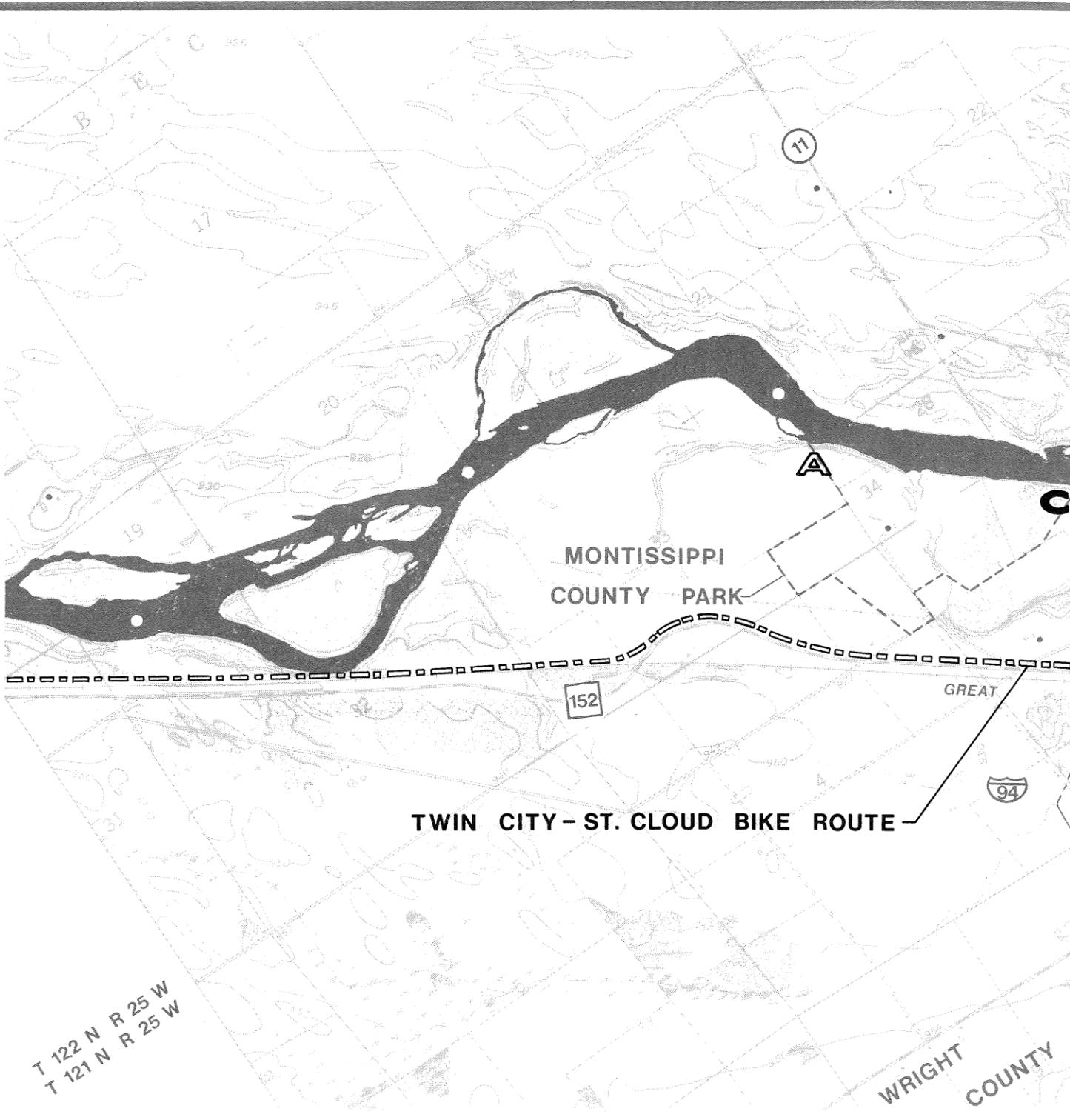
RECREATION

PROPOSED	EXISTING	FACILITY
P A C H	P A C H	PORTAGE ACCESS
		CANOE CAMPSITE
		HIKING CAMPSITE

MANAGEMENT

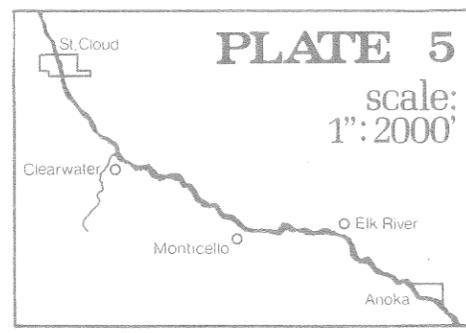
PROPOSED	EXISTING	FACILITY
R □□□□	R	REST AREA
□□□□	— · — · —	HIKING TRAIL
☆	★	MULTI-USE TRAIL
		HISTORIC SITE

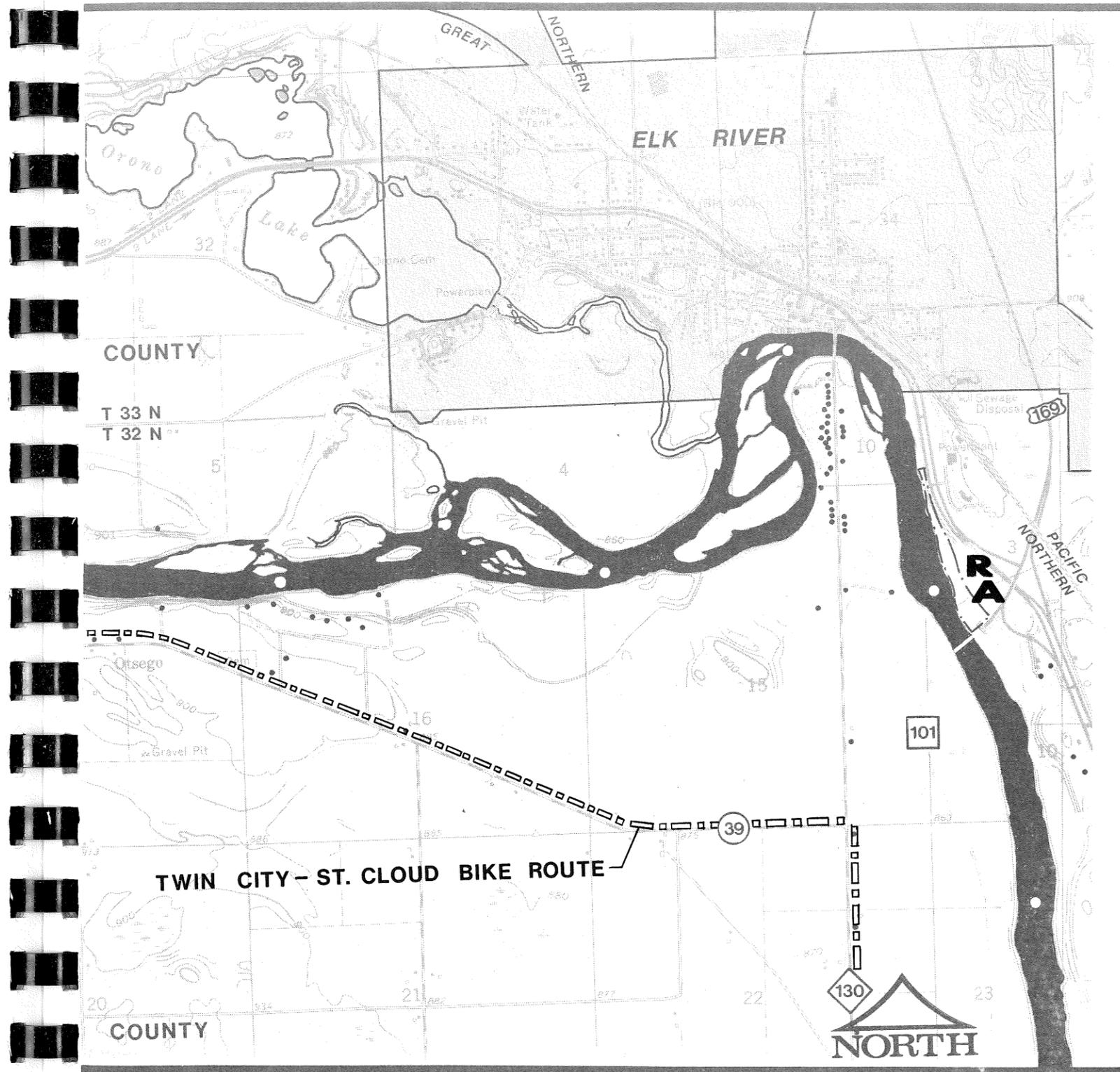
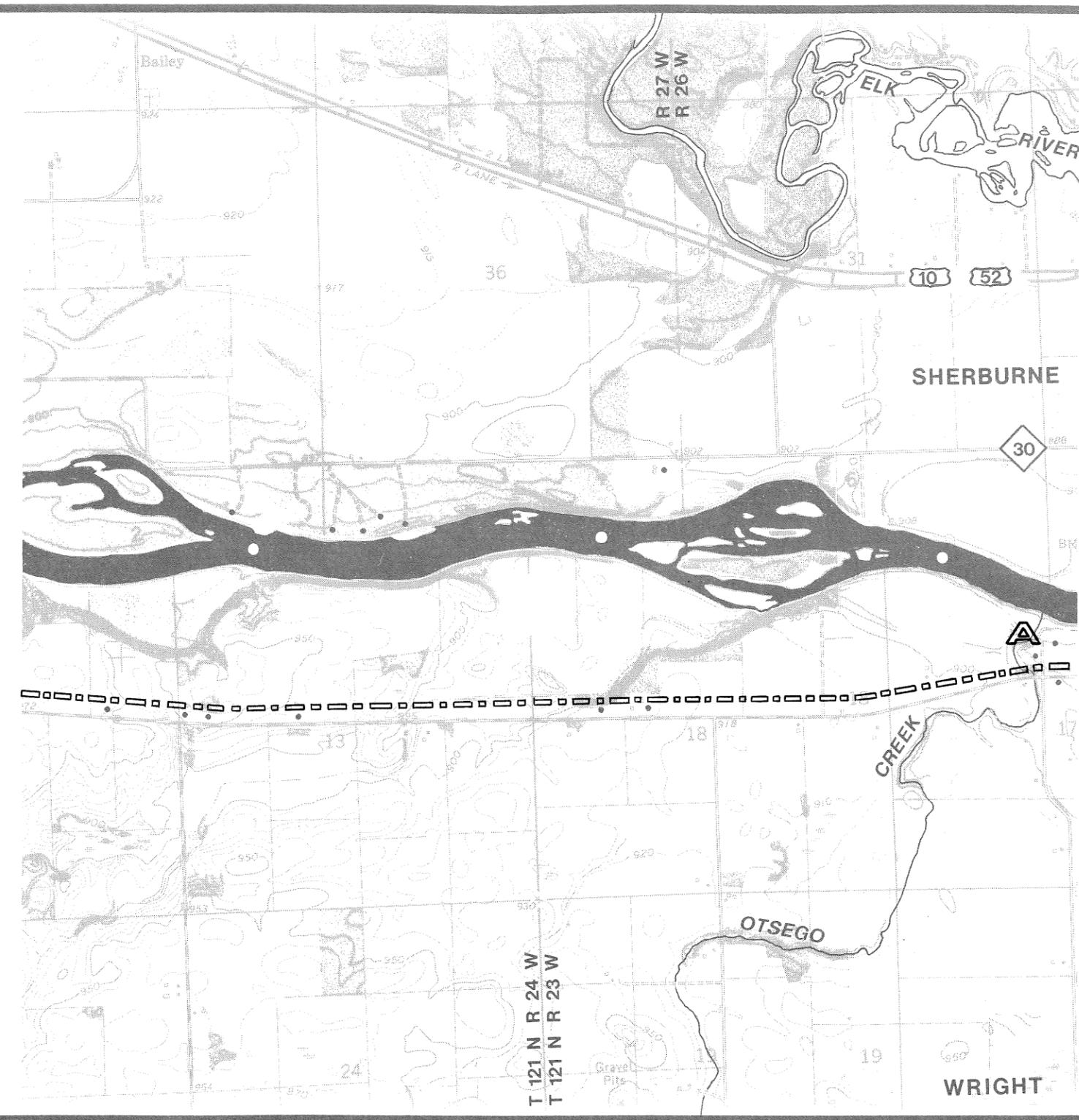




RECREATION	
PROPOSED	EXISTING FACILITY
P A C H	P A C H
	PORTAGE ACCESS
	CANOE CAMPSITE
	HIKING CAMPSITE

MANAGEMENT	
PROPOSED	EXISTING FACILITY
R □□□□ □□□□ ☆	R - - - - ★
	REST AREA
	HIKING TRAIL
	MULTI-USE TRAIL
	HISTORIC SITE



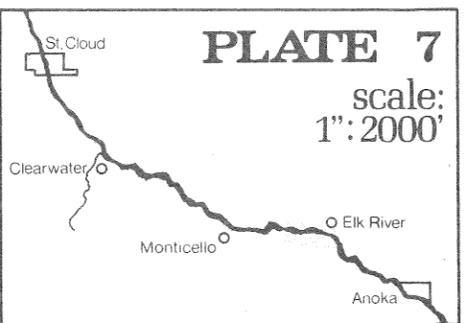


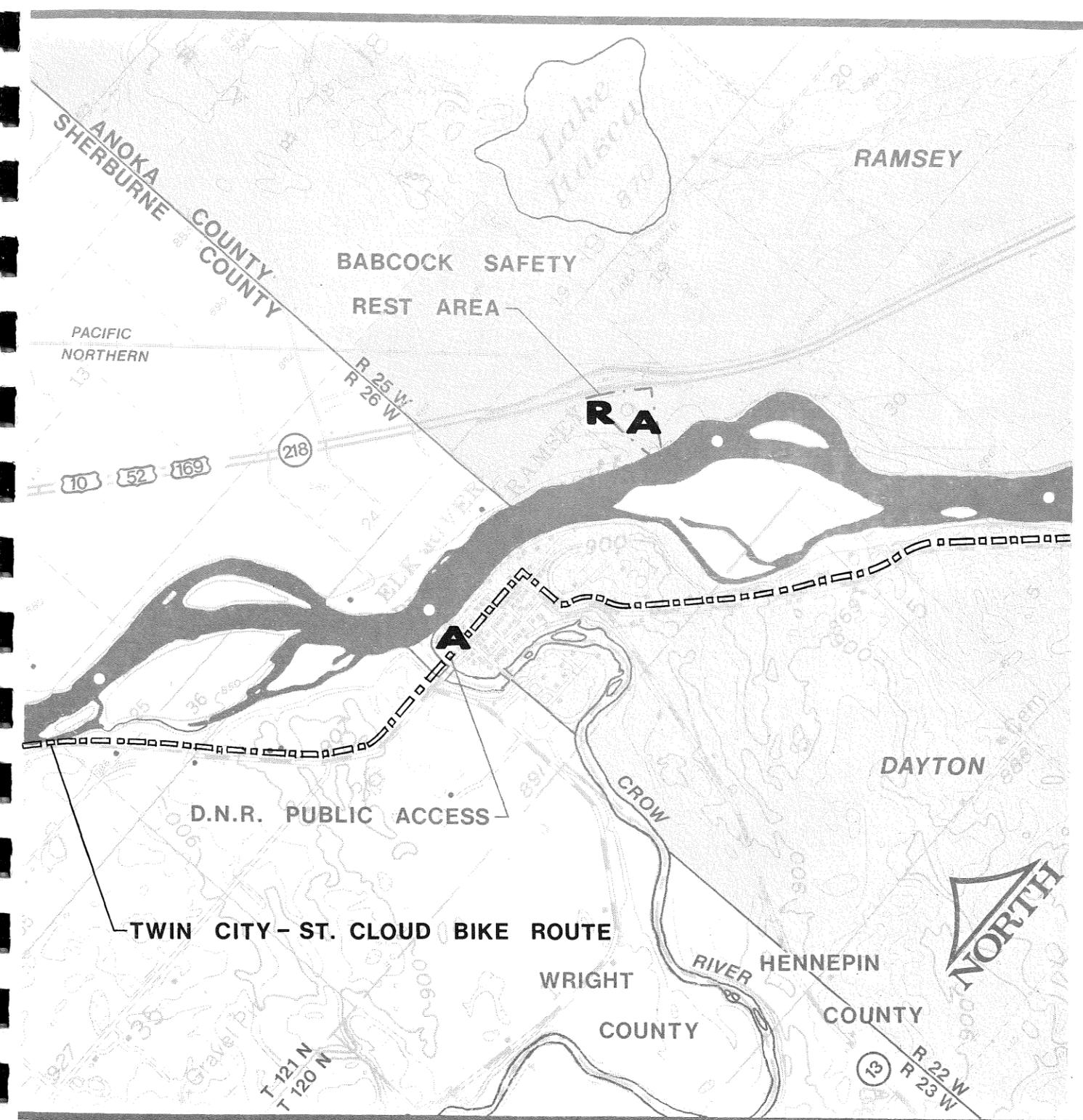
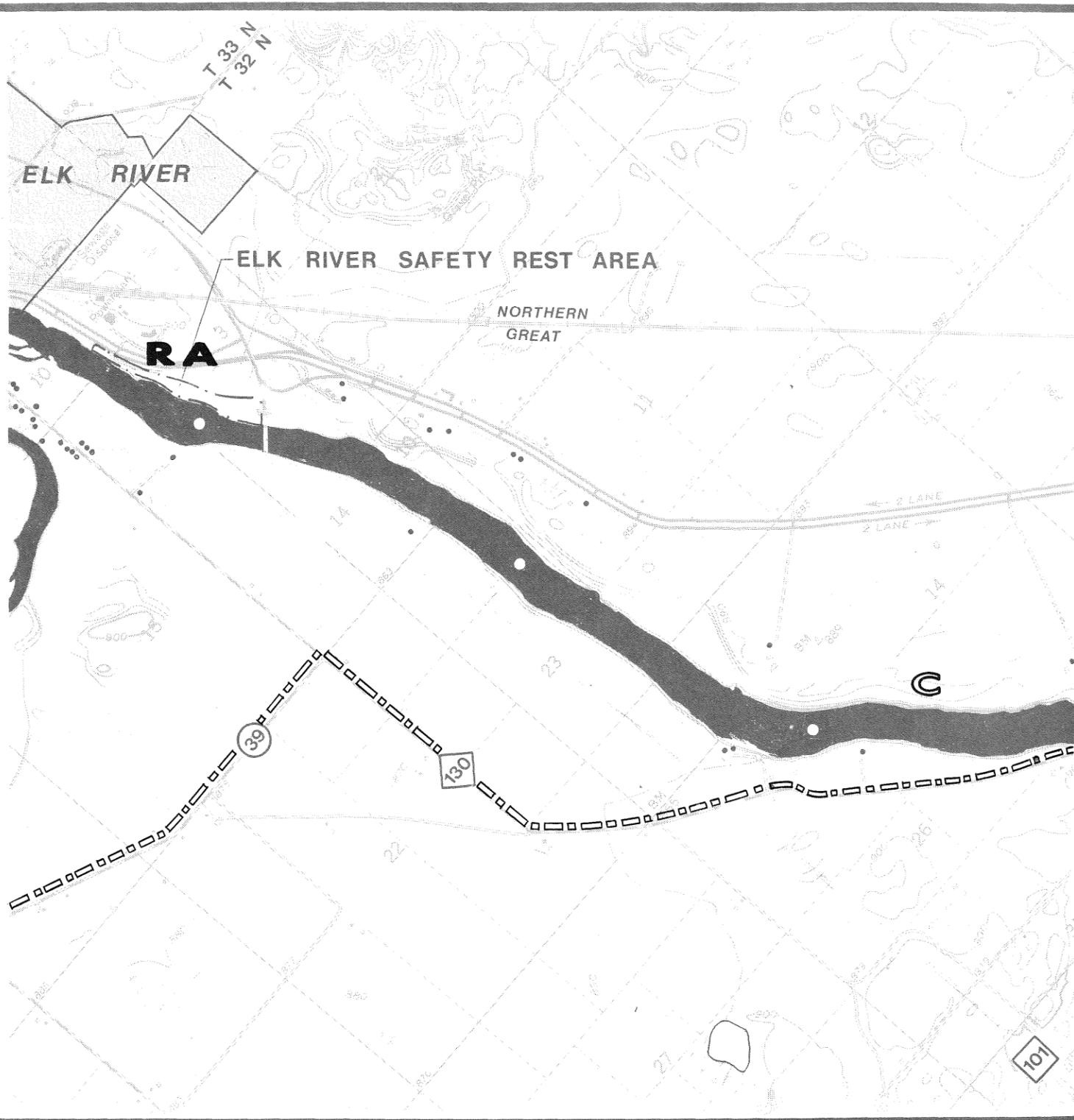
RECREATION

PROPOSED	EXISTING	FACILITY
P A C H	P A C H	PORTAGE ACCESS CANOE CAMPSITE HIKING CAMPSITE

MANAGEMENT

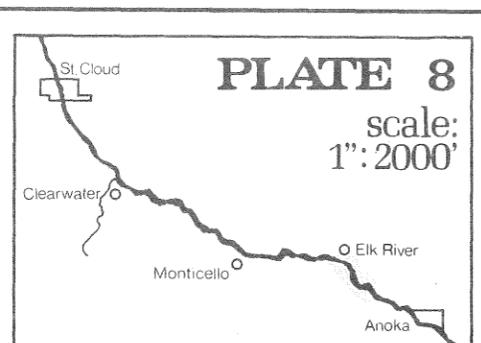
PROPOSED	EXISTING	FACILITY
R □□□□ □□□□ ☆	R - - - - ★	REST AREA HIKING TRAIL MULTI-USE TRAIL HISTORIC SITE

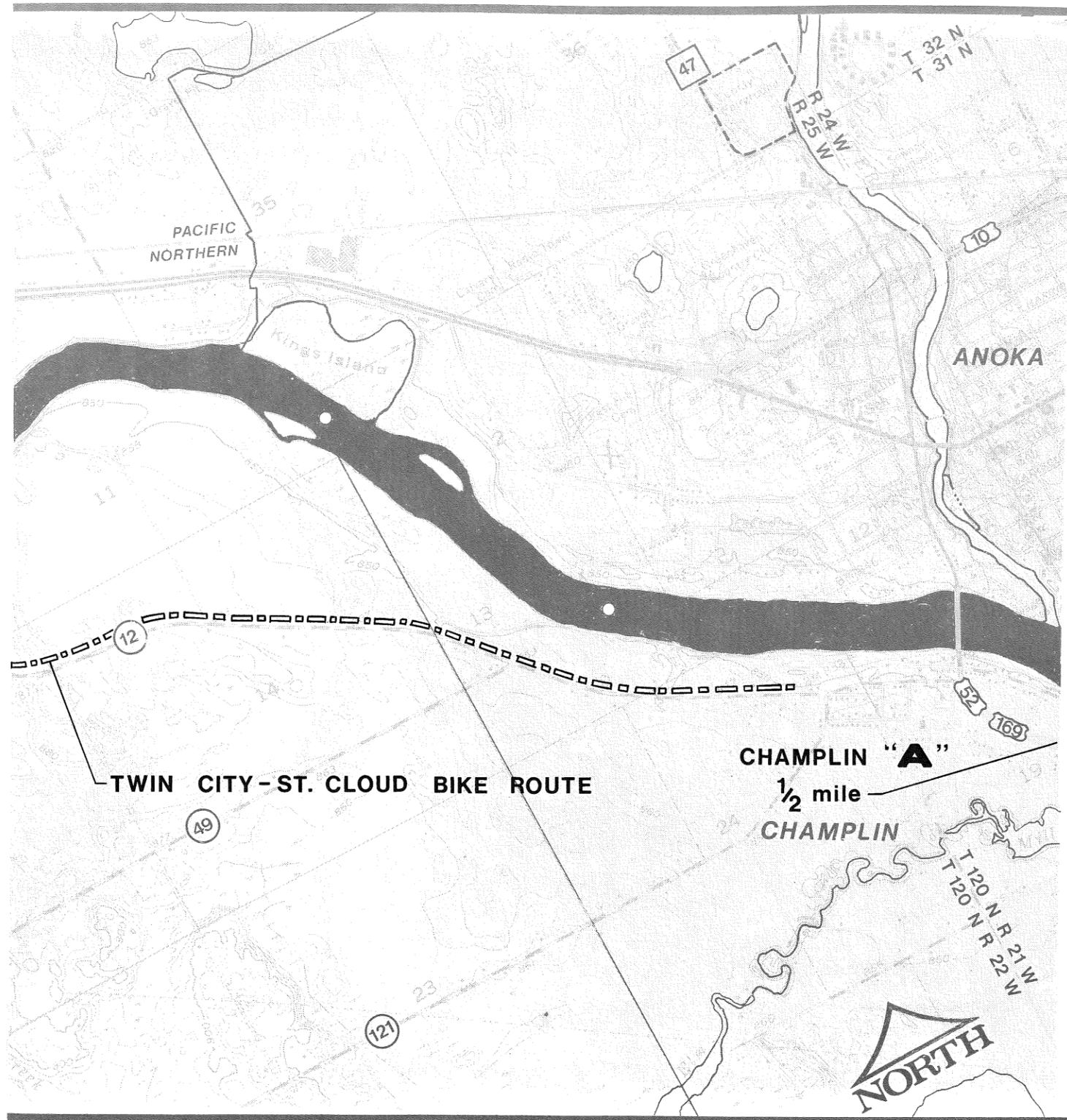
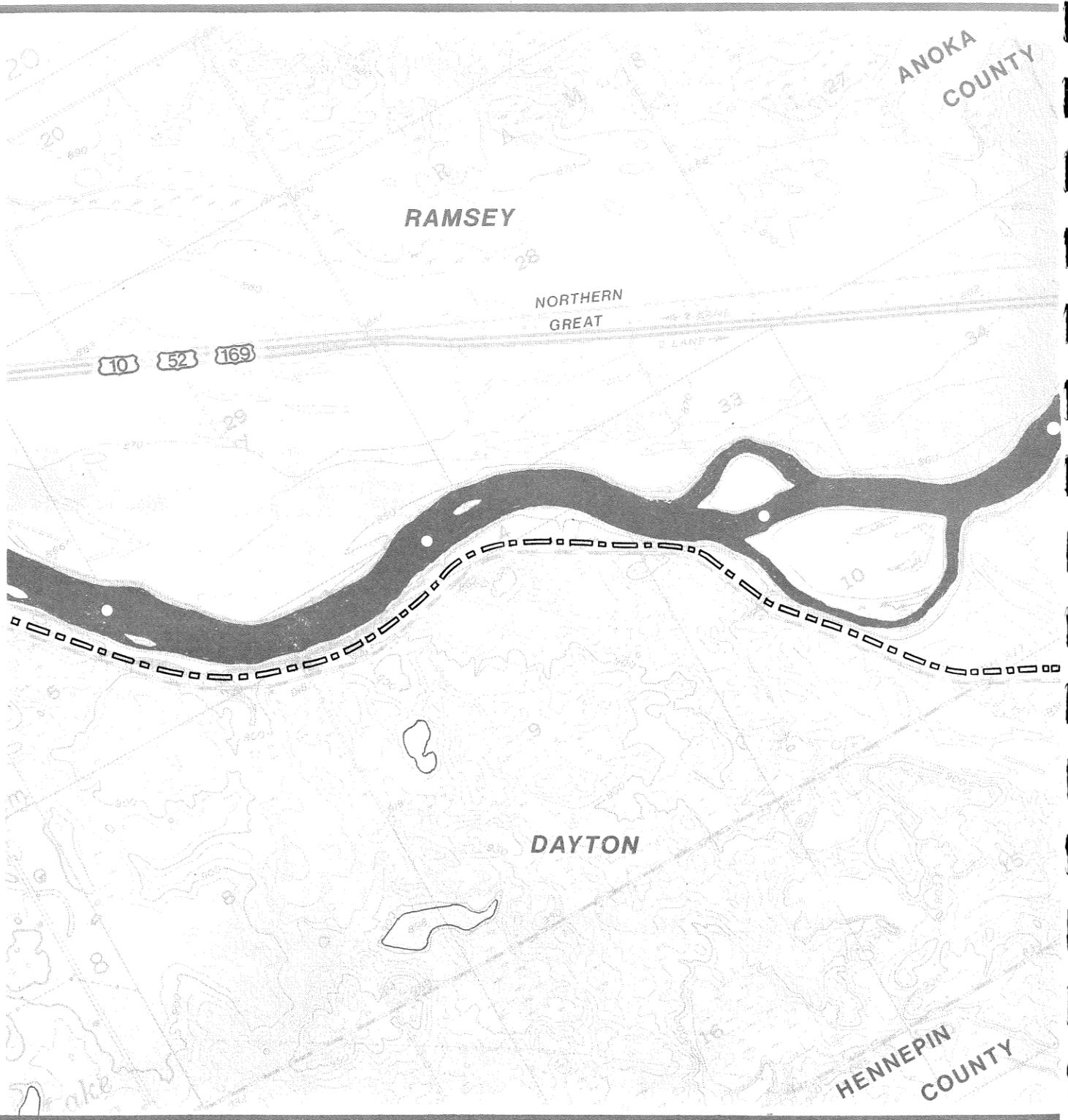




RECREATION		
PROPOSED	EXISTING	FACILITY
P	P	PORTAGE ACCESS
A	A	CANOE CAMPSITE
C	C	HIKING CAMPSITE
H	H	

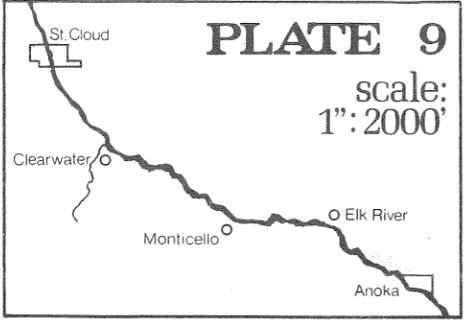
MANAGEMENT		
PROPOSED	EXISTING	FACILITY
R	R	REST AREA
□□□□	HIKING TRAIL
□□□	- - - -	MULTI-USE TRAIL
☆	★	HISTORIC SITE





RECREATION	
PROPOSED	EXISTING
P A C H	P A C H
	PORTAGE ACCESS
	CANOE CAMPSITE
	HIKING CAMPSITE

MANAGEMENT	
PROPOSED	EXISTING
R □□□□ □□□□ ☆	R - - - - ★
	REST AREA
	HIKING TRAIL
	MULTI-USE TRAIL
	HISTORIC SITE



LAND MANAGEMENT TOTALS

Land Use District Acreages

East Bank	
Sherburne County	7,103.57
Anoka County	889.99
Total	<u>7,993.56</u>

West Bank	
Stearns County	1,608.55
Wright County	4,714.03
Hennepin County	1,185.70
Total	<u>7,508.28</u>

Grand Total	<u>15,501.84</u>
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Scenic Easement Acreages

East Bank	
Sherburne County	3,114.07
Anoka County	200.95
Total	<u>3,315.02</u>

West Bank	
Stearns County	603.49
Wright County	1,111.12
Hennepin County	333.74
Total	<u>2,048.35</u>

Grand Total	<u>5,363.37</u>
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Fee Title Acreages

East Bank	
Sherburne County	514.69
Anoka County	9.16
Total	<u>523.85</u>

West Bank	
Stearns County	51.45
Wright County	121.48
Hennepin County	149.96
Total	<u>322.89</u>

Grand Total	<u>846.74</u>
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ACREAGE PER RIVER MILE

River Mile (M)

West Bank (W) (includes Stearns, Wright and Hennepin Counties)

East Bank (E) (includes Sherburne and Anoka Counties)

Total (T)

M	56 - 55	M	46 - 45	M	36 - 35
W	12	W	223.98	W	123.07
E	9	E	95.3	E	178.37
T	21	T	319.28	T	301.44
M	55 - 54	M	45 - 44	M	35 - 34
W	124.82	W	88.27	W	95.84
E	180.23	E	131.97	E	149.89
T	305.05	T	220.24	T	245.73
M	54 - 53	M	44 - 43	M	34 - 33
W	139.85	W	89.52	W	169.76
E	176.85	E	174.35	E	121.55
T	316.70	T	263.87	T	291.31
M	53 - 52	M	43 - 42	M	33 - 32
W	122.79	W	94.8	W	156.71
E	196.19	E	129.54	E	145.89
T	318.98	T	224.34	T	302.60
M	52 - 51	M	42 - 41	M	32 - 31
W	112.16	W	116.33	W	112.29
E	203.73	E	126.68	E	161.12
T	315.89	T	243.01	T	273.41
M	51 - 50	M	41 - 40	M	31 - 30
W	98.25	W	144.26	W	136.71
E	199.90	E	149.2	E	157.40
T	298.15	T	293.46	T	294.11
M	50 - 49	M	40 - 39	M	30 - 29
W	174.64	W	147.82	W	129.63
E	138.29	E	168.76	E	183.10
T	312.93	T	316.58	T	312.73
M	49 - 48	M	39 - 38	M	29 - 28
W	109.68	W	121.00	W	96.48
E	197.87	E	118.52	E	215.21
T	307.55	T	239.52	T	311.69
M	48 - 47	M	38 - 37	M	28 - 27
W	128.53	W	165.06	W	144.02
E	170.51	E	132.28	E	152.34
T	299.04	T	297.34	T	296.36
M	47 - 46	M	37 - 36	M	27 - 26
W	152.06	W	126.33	W	94.57
E	148.75	E	135.88	E	173.02
T	300.81	T	262.21	T	267.59

M 26 - 25
W 42.00
E 177.72
T 219.72

M 25 - 24
W 129.75
E 142.13
T 271.88

M 24 - 23
W 142.87
E 130.82
T 273.69

M 23 - 22
W 130.47
E 146.6
T 277.07

M 22 - 21
W 169.51
E 123.53
T 293.04

M 21 - 20
W 181.72
E 133.90
T 315.62

M 20 - 19
W 97.00
E 201.00
T 298.00

M 19 - 18
W 139.53
E 161.54
T 301.07

M 18 - 17
W 124.7
E 98.87
T 223.57

M 17 - 16
W 194.92
E 106.4
T 301.32

M 16 - 15
W 187.95
E 95.23
T 283.18

M 15 - 14
W 126.46
E 177.08
T 303.54

M 14 - 13
W 109.2
E 143.91
T 253.11

M 13 - 12
W 157.34
E 28.00
T 185.34

M 12 - 11
W 138.06
E 144.49
T 282.55

M 11 - 10
W 185.14
E 124.25
T 309.39

M 10 - 9
W 169.57
E 146.64
T 316.21

M 9 - 8
W 155.16
E 135.74
T 290.9

M 8 - 7
W 138.3
E 142.03
T 280.33

M 7 - 6
W 182.97
E 124.6
T 307.57

M 6 - 5
W 160.52
E 133.40
T 293.92

M 5 - 4
W 106.05
E 129.64
T 235.69

M 4 - 3
W 206.42
E 97.58
T 304.00

M 3 - 2
W 119.99
E 105.6
T 225.59

M 2 - 1
W 147.48
E 117.72
T 265.20

M 1 - 0
W 113.97
E 103.45
T 217.42

Totals: West 7,508.28
East 7,993.56

Land Use District = 15,501.84

LAND USE DISTRICT - ACREAGE IN SHERBURNE COUNTY

T 35 N - R 31 W

Section 1 - Government	Lot 4	17.00 acres	West of Road
Section 12 - Government	Lot 1	30.00 acres	West of Road
"	Lot 2	37.20 "	"
"	Lot 3	41.20 "	"
"	Lot 4	23.50 "	"
"	Lot 5	4.73 "	Island
"	Lot 6	15.34 "	"
"	Lot 7	7.45 "	"
"	Lot 8	14.88 "	"
"	Lot 9	44.95 "	"
Section 13 - Government	Lot 1	2.60 acres	Island
"	Lot 2	1.80 "	"
"	Lot 3	19.33 "	"
"	Lot 4	49.00 "	West
"	Lot 5	57.10 "	"
"	Lot 6	48.30 "	"
"	Lot 7	23.47 "	West
Section 24 - Government	Lot 1	53.60 acres	
"	Lot 2	74.82 "	
"	Lot 3	72.85 "	
"	Lot 4	54.50 "	West
Section 25 - Government	Lot 1	51.38 acres	West
"	Lot 2	59.85 "	"
"	Lot 3	64.57 "	"

T 35 N - R 30 W

Section 30 -	NW1/4 SW1/4	44.24 acres	
	Government Lot 1	43.24 "	
Section 31 - Government	Lot 3	67.00 acres	
"	Lot 2	23.74 "	South
"	Lot 1	59.55 "	
Section 32 - Government	Lot 1	66.58 acres	West of Road
	SW1/4 SE1/4	3.00 "	"
	NW1/4 SW1/4	40.00 "	

T 34 N - R 30 W

Section 5 - Government	Lot 1	32.29 acres	
	NE1/4 NW1/4	19.00 "	West of Road
Government	Lot 2	45.10 "	"
"	Lot 3	41.42 "	
"	Lot 4	44.00 "	
Section 8 - Government	Lot 1	72.60 acres	
"	Lot 2	61.60 "	
"	Lot 3	9.39 "	Island

LAND USE DISTRICT - ACREAGE IN SHERBURNE COUNTY

Section 9 - Government	Lot 1	42.75	acres	
"	Lot 2	38.40	"	
"	Lot 3	50.30	"	
Section 16 - Government	Lot 1	43.00	acres	
"	Lot 2	38.70	"	
Section 15 - Government	Lot 1	2.52	acres	
"	Lot 2	48.55	"	South
SE1/4	NW1/4	40.00	"	
"	Lot 3	40.20	"	
"	Lot 4	38.60	"	
"	Lot 5	39.90	"	
"	Lot 6	30.85	"	
Section 14 - S1/2 SW1/4	SW1/4	20.00	acres	
Section 22 - Government	Lot 1	11.00	acres	
Section 23 -	NW1/4 NW1/4	40.00	acres	
Government	Lot 1	33.24	"	
"	Lot 2	44.30	"	
"	Lot 3	47.80	"	
Section 26 - Government	Lot 1	50.20	acres	
Section 25 - Government	Lot 1	61.68	acres	
"	Lot 2	78.50	"	
"	Lot 3	31.00	"	South Part
"	Lot 4	19.70	"	" "
Section 36 - Government	Lot 1	54.00	acres	

T 34 N - R 29 W

Section 30 - Government	Lot 1	24.05	acres	West
"	Lot 2	26.84	"	
"	Lot 3	24.00	"	
"	Lot 4	30.57	"	
"	Lot 5	34.50	"	
Section 31 - Government	Lot 2	8.30	acres	
"	Lot 1	.77	"	
Section 32 - Government	Lot 1	44.25	acres	
"	Lot 2	58.00	"	
"	Lot 3	45.80	"	
"	Lot 4	35.10	"	

T 33 N - R 29 W

Section 5 - Government	Lot 1	8.38	acres	
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LAND USE DISTRICT - ACREAGE IN SHERBURNE COUNTY

Section 4 - Government	Lot 4	34.25	acres	
"	Lot 3	51.32	"	
NE1/4 NW1/4		35.40	"	
Government	Lot 2	19.91	"	
"	Lot 1	33.38	"	
<u>T 34 N - R 29 W</u>				
Section 33 - S1/2 SW1/4 SE1/4		20.00	acres	
Government	Lot 1	36.95	"	
Section 34 - Government	Lot 1	39.70	acres	
SE1/4 SW1/4		40.00	"	
Government	Lot 2	31.90	"	
"	Lot 3	25.95	"	
<u>T 33 N - R 29 W</u>				
Section 3 - Government	Lot 1	18.34	acres	
<u>T 34 N - R 29 W</u>				
Section 35 - Government	Lot 1	37.75	acres	
<u>T 33 N - R 29 W</u>				
Section 2 - Government	Lot 1	10.64	acres	Island
"	Lot 2	21.90	"	
"	Lot 3	31.75	"	
"	Lot 4	17.00	"	West
"	Lot 5	25.55	"	"
"	Lot 6	56.20	"	
Section 11 - Government	Lot 1	17.80	acres	
Section 12 - Government	Lot 1	42.35	acres	
"	Lot 2	41.16	"	South
"	Lot 3	19.28	"	"
"	Lot 4	56.10	"	
"	Lot 5	45.33	"	
Section 13 - Government	Lot 1	32.55	acres	
"	Lot 2	14.44	"	
<u>T 33 N - R 28 W</u>				
Section 18 - W1/2 NW1/4 NW1/4		23.40	acres	
W1/2 SW1/4 NW1/4		23.40	"	
Government	Lot 2	28.50	"	All but NE 10
S1/2 NE1/4 SW1/4		20.00	"	
Government	Lot 1	30.90	"	
SW1/4 SE1/4		40.00	"	
All but NE1/4 of				
SE1/4 SE1/4		30.00	"	

LAND USE DISTRICT - ACREAGE IN SHERBURNE COUNTY

T 33 N - R 28 W

Section 19 - Government	Lot 3	40.13	acres	
"	Lot 2	14.00	"	Island
"	Lot 1	2.68	"	"
Section 20 - Government	Lot 6	52.81	acres	Island
"	Lot 5	32.38	"	South
"	Lot 4	29.70	"	"
"	Lot 3	28.40	"	"
"	Lot 2	25.80	"	"
"	Lot 1	9.38	"	Island
Section 21 - Government	Lot 6	45.97	acres	Island
"	Lot 5	31.42	"	
"	Lot 4	39.70	"	
"	Lot 3	26.74	"	
"	Lot 2	34.20	"	
"	Lot 1	56.27	"	
Section 28 - Government	Lot 1	25.20	acres	
Section 27 - Government	Lot 4	58.87	acres	
"	Lot 3	39.72	"	
"	Lot 2	36.58	"	
W1/2 NW1/4	SE1/4	20.00	"	
Government	Lot 1	31.52	"	
SE1/4	SE1/4	40.00	"	
Section 34 - Government	Lot 1	31.20	acres	

T 33 N - R 28 W

Section 35 - Government	Lot 4	42.72	acres
"	Lot 3	57.30	"
"	Lot 2	41.70	"
"	Lot 1	67.00	"

T 33 N - R 28 W

Section 36 - Government	Lot 2	55.63	acres
"	Lot 1	38.50	"

T 32 N - R 28 W

Section 1 - Government	Lot 2	31.88	acres
"	Lot 1	36.67	"

T 32 N - R 27 W

Section 6 - Government	Lot 3	48.87	acres
"	Lot 2	31.40	"
"	Lot 1	11.00	"

LAND USE DISTRICT - ACREAGE IN SHERBURNE COUNTY

T 33 N - R 27 W

Section 31 -	SW1/4 SE1/4	40.00	acres	
	Government Lot 1	36.60	"	
Section 32 -	Government Lot 1	30.40	acres	
	" Lot 2	24.60	"	
	" Lot 3	26.06	"	
	" Lot 4	32.37	"	
Section 33 -	Government Lot 1	39.10	acres	
	SE1/4 SW1/4	40.00	"	
	SW1/4 SE1/4	40.00	"	
	Government Lot 2	37.10	"	

T 32 N - R 27 W

Section 4 -	Government Lot 2	6.20	acres	
	" Lot 1	6.80	"	

T 33 N - R 27 W

Section 34 -	Government Lot 1	58.80	acres	
	" Lot 2	33.20	"	South
	" Lot 3	39.80	"	
	S1/2 SE1/4 NE1/4	20.00	"	
	NE1/4 SE1/4	40.00	"	
	Government Lot 4	29.00	"	
Section 35 -	Government Lot 1	38.55	acres	
	" Lot 2	33.84	"	
	" Lot 3	19.97	"	South

T 32 N - R 27 W

Section 2 -	Government Lot 4	45.25	acres	Island
	" Lot 3	3.93	"	
	" Lot 2	12.00	"	
	" Lot 1	26.87	"	
Section 1 -	Government Lot 4	31.70	acres	
	" Lot 3	23.30	"	
	" Lot 2	21.00	"	
	" Lot 1	25.00	"	

T 32 N - R 26 W

Section 6 -	Government Lot 4	21.93	acres	
	" Lot 3	24.15	"	
	" Lot 2	35.32	"	
	" Lot 1	50.54	"	

LAND USE DISTRICT - ACREAGE IN SHERBURNE COUNTY

Section 5 - Government	Lot 5	24.00	acres	
"	Lot 4	17.59	"	
"	Lot 3	6.10	"	
"	Lot 2	41.27	"	
"	Lot 1	8.29	"	Island

Section 4 - Government	Lot 6	21.70	acres	
"	Lot 5	16.52	"	
"	Lot 4	38.50	"	
"	Lot 3	56.40	"	
"	Lot 2	33.20	"	
"	Lot 7	23.80	"	Island
"	Lot 8	18.76	"	
"	Lot 1	2.85	"	Island

T 33 N - R 26 W

Section 33 - Government	Lot 2	39.97	acres	
Section 34 - Government	Lot 1	18.88	acres	South
"	Lot 2	7.00	"	SW of Road
"	Lot 3	2.00	"	" " "

T 32 N - R 26 W

Section 3 - Government	Lot 4	4.00	acres	SW of Road
"	Lot 3	8.00	"	" " "
"	Lot 2	32.00	"	" " "
"	Lot 1	19.78	"	
"	Lot 5	6.85	"	
Section 10 - Government	Lot 2	17.71	acres	
"	Lot 1	3.48	"	
Section 11 -	NW1/4 NW1/4	40.00	acres	
	SW1/4 NW1/4	40.00	"	
	NW1/4 SW1/4	40.00	"	
Government	Lot 1	37.00	"	
Section 14 - Government	Lot 4	32.77	acres	
"	Lot 3	41.42	"	West Part (less 20 acres)
"	Lot 2	29.45	"	
	NW1/4 SE1/4	30.00	"	All but NE1/4-10 acres
Government	Lot 1	32.77	"	
	SE1/4 SE1/4	40.00	"	
Section 23 - Government	Lot 1	6.67	acres	
Section 13 -	SW1/4 SW1/4	40.00	acres	
Section 24 - Government	Lot 4	39.07	acres	
"	Lot 3	56.22	"	
"	Lot 2	22.81	"	
"	Lot 1	17.00	"	South

Sherburne County Total 7,103.57

LAND USE DISTRICT - ACREAGE IN STEARNS COUNTY

T 124 N - R 28 W

Section 13 - Government	Lot 3	3.88	acres	
"	Lot 4	20.12	"	
Section 24 - Government	Lot 1	57.58	acres	
"	Lot 2	29.32	"	
"	Lot 3	22.92	"	
"	Lot 4	23.65	"	
Section 25 - Government	Lot 1	17.15	acres	East
"	Lot 2	19.82	"	"
E1/2 NW1/4	SW1/4	20.00	"	
Government	Lot 3	49.38	"	
"	Lot 4	22.85	"	
"	Lot 5	48.98	"	
Section 36 - Government	Lot 1	44.66	acres	
"	Lot 2	26.15	"	
"	Lot 3	29.20	"	
"	Lot 4	27.96	"	

T 123 N - R 28 W

Section 1 - Government	Lot 1	31.26	acres
"	Lot 2	32.74	"
"	Lot 3	35.07	"

T 123 N - R 27 W

Section 6 - Government	Lot 1	29.10	acres
Section 7 - Government	Lot 3	30.08	acres
SE1/4 NW1/4		40.00	"
Government	Lot 2	40.00	"
"	Lot 1	20.62	"
NE1/4 SE1/4		40.00	"
Section 8 - Government	Lot 2	36.34	acres
"	Lot 1	25.82	"
E1/2 SW1/4	SW1/4	20.00	"
Section 17 - Government	Lot 4	40.52	acres
"	Lot 3	39.35	"
"	Lot 2	34.65	"
"	Lot 1	25.10	"
Section 20 - Government	Lot 2	26.43	acres
N1/2 SW1/4	NE1/4	20.00	"
Government	Lot 1	25.18	"
N1/2 NE1/4	SE1/4	20.00	"
Section 21 - Government	Lot 3	41.92	acres
"	Lot 2	37.96	"
"	Lot 1	48.10	"

LAND USE DISTRICT - ACREAGE IN STEARNS COUNTY

Section 28 - Government	Lot 2	60.62	acres	
	SE1/4 NW1/4	32.00	"	NE of Road
	SW1/4 NE1/4	40.00	"	
Government	Lot 1	41.26	"	

T 123 N - R 27 W

Section 27 - Government	Lot 4	60.97	acres	
"	Lot 3	31.58	"	
"	Lot 2	11.72	"	North
"	Lot 1	23.95	"	

Section 26 - Government	Lot 2	33.25	acres	
"	Lot 1	29.42	"	

Section 35 - Government	Lot 5	40.00	"	
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Stearns County Total 1,608.55

LAND USE DISTRICT - ACREAGE IN WRIGHT COUNTY

T 123 N - R 27 W

Section 35	Government	Lot 4	19.00	acres	East of Road
	"	Lot 5	3.65	"	
	"	Lot 3	11.00	"	East of Road
	"	Lot 1	16.45	"	
	"	Lot 2	27.15	"	East of Road
	SE1/4	NW1/4	2.00	"	East of Road

T 122 N - R 27 W

Section 2 -	NE1/4	NE1/4	36.00	acres	
Section 1 -	Government	Lot 5	15.95	acres	
	"	Lot 4	39.93	"	
	"	Lot 3	27.35	"	
	"	Lot 2	46.10	"	
	"	Lot 1	41.05	"	

T 122 N - R 26 W

Section 6 -	Government	Lot 2	58.76	acres	
Section 7 -	Government	Lot 9	28.20	acres	
	"	Lot 8	12.00	"	North Half
	"	Lot 6	11.05	"	North
	"	Lot 4	8.65	"	Northwest Corner
	"	Lot 3	16.15	"	West
	"	Lot 2	19.32	"	All but SE 10
Section 6 -	Government	Lot 1	24.45	acres	
Section 5 -	Government	Lot 1	14.82	acres	
Section 8 -	Government	Lot 5	33.36	acres	
	"	Lot 4	51.82	"	
	"	Lot 3	36.00	"	
	"	Lot 1	56.95	"	
Section 9 -	Government	Lot 1	27.56	acres	
Section 16 -	Government	Lot 4	59.55	acres	
	"	Lot 3	39.10	"	
	"	Lot 2	34.82	"	
	"	Lot 1	17.85	"	
Section 15 -	Government	Lot 4	38.56	acres	North
	"	Lot 3	30.42	"	
	"	Lot 2	29.90	"	
	"	Lot 1	33.45	"	

LAND USE DISTRICT - ACREAGE IN WRIGHT COUNTY

Section 14 - Government	Lot 5	43.30	acres
"	Lot 4	41.22	"
"	Lot 3	40.62	"
"	Lot 2	25.18	"
"	Lot 1	38.00	"
SE1/4	SE1/4	40.00	

Section 13 - Government	Lot 1	21.58	acres
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Section 24 -	NW1/4	NW1/4	40.00	acres
Government	Lot 3	28.35	"	
"	Lot 2	49.08	"	
"	Lot 1	29.28	"	
NE1/4	SE1/4	40.00	"	

T 122 N - R 25 W

Section 19 - Government	Lot 1	16.26	acres
"	Lot 2	20.32	"

Section 30 - Government	Lot 1	36.15	acres	
"	Lot 2	55.56	"	
"	Lot 3	47.48	"	
"	Lot 4	45.35	"	All but SW 10

Section 31 - Government	Lot 1	39.88	acres
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Section 32 - Government	Lot 4	22.35	acres	
NW1/4 SW1/4	NW1/4	10.00	"	
Government	Lot 3	29.00	"	
NW1/4 NW1/4	SW1/4	10.00	"	
Government	Lot 2	19.56	"	
"	Lot 1	32.72	"	North

T 122 N - R 25 W

Section 33 - Government	Lot 4	32.28	acres
"	Lot 3	32.05	"
"	Lot 2	27.15	"
"	Lot 1	48.12	"

Section 34 - Government	Lot 1	36.26	acres
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T 121 N - R 25 W

Section 3 -	NW1/4	NW1/4	41.40	acres	
Government	Lot 4	33.06	"		
"	Lot 3	31.18	"	East	
"	Lot 2	43.75	"		
"	Lot 1	20.00	"	North of 152 & West & North of Side Streets	

LAND USE DISTRICT - ACREAGE IN WRIGHT COUNTY

Section 2 - Government Lot 1	7.82 acres	
Section 11	42.00 acres	North of Street, one block North of Main
Section 12 - Government Lot 3	10.00 acres	North
" Lot 2	34.10 "	North
" Lot 1	40.65 "	
Section 13 - NW1/4 NE1/4	40.00 acres	
NE1/4 NE1/4	40.00 "	

T 121 N - R 24 W

Section 18 - Government Lot 4	38.08 acres	
" Lot 3	22.10 "	
" Lot 2	22.75 "	
" Lot 1	38.42 "	
Section 7 - Government Lot 1	.52 acres	
" Lot 2	3.69 "	
Section 8 - Government Lot 1	23.10 acres	
" Lot 2	39.20 "	
" Lot 3	40.48 "	
" Lot 4	42.00 "	
Section 15 - NW1/4 NW1/4 NW1/4	10.00 acres	
Section 9 - Government Lot 2	29.70 acres	
" Lot 3	16.22 "	Island
" Lot 4	24.47 "	"
" Lot 1	4.00 "	
Section 16 - NE1/4 NW1/4	39.50 acres	
NW1/4 NE1/4	33.62 "	
NE1/4 NE1/4	38.46 "	
Section 10 - Government Lot 1	28.16 acres	
" Lot 2	41.00 "	
" Lot 3	22.10 "	
" Lot 4	54.50 "	
N1/2 SW1/4 SE 1/4	20.00 "	

LAND USE DISTRICT - ACREAGE IN WRIGHT COUNTY

Section 11 - Government	Lot 1	57.50	acres
"	Lot 2	19.42	"
Section 14 - N1/2 NE1/4	NW1/4	20.00	acres
Government	Lot 2	35.10	"
"	Lot 1	31.46	"
Section 13 - Government	Lot 4	36.55	acres
"	Lot 3	31.87	"
"	Lot 2	23.75	"
"	Lot 1	34.62	"

T 121 N - R 23 W

Section 18 - Government	Lot 5	34.46	acres	
"	Lot 4	61.15	"	
"	Lot 3	45.20	"	
N1/2 SE1/4	NE1/4	20.00	"	
Government	Lot 2	25.20	"	
"	Lot 1	6.57	"	
Section 7 - Government	Lot 1	11.80	acres	
Section 17 - Government	Lot 4	30.00	acres	
SW1/4	NW1/4	40.00	"	
Government	Lot 3	46.50	"	
"	Lot 2	36.47	"	
"	Lot 1	35.86	"	
Section 16 - Government	Lot 4	37.12	acres	
"	Lot 3	20.14	"	North
"	Lot 2	37.00	"	
"	Lot 1	40.32	"	
Section 15 - Government	Lot 5	44.00	acres	
"	Lot 4	49.20	"	
SW1/4	NE1/4	40.00	"	
Government	Lot 3	32.22	"	
"	Lot 2	27.50	"	
"	Lot 1	35.87	"	
E1/2	E1/2 SE1/4	40.00	"	
Section 10 - Government	Lot 1	53.75	acres	
Section 14 - Government	Lot 1	24.18	acres	
"	Lot 2	32.70	"	
Section 23 - Government	Lot 1	38.18	acres	
"	Lot 2	38.20	"	
"	Lot 3	44.84	"	
"	Lot 4	46.10	"	
Section 26 - Government	Lot 1	35.00	acres	West
"	Lot 2	53.70	"	
"	Lot 3	36.40	"	
"	Lot 4	44.07	"	

LAND USE DISTRICT - ACREAGE IN WRIGHT COUNTY

Section 25 - Government	Lot 3	10.90	acres	
"	Lot 2	18.90	"	
"	Lot 1	6.48	"	
Section 36 - Government	Lot 2	37.50	acres	
"	Lot 1	36.20	"	
"	Lot 3	31.00	"	North
"	Lot 4	31.88	"	"
NW1/4	SE1/4	9.00	"	North of Road
Government	Lot 5	16.70	"	" " "

Wright County Total 4,714.03

LAND USE DISTRICT - ACREAGE IN HENNEPIN COUNTY

T 121 N - R 23 W

Section 36 - Government Lot 5 10.00 acres

T 121 N - R 22 W

Section 31 - Government	Lot 1	17.00 acres	North of Road
"	Lot 2	27.00 "	Northeast of Road
"	Lot 3	43.30 "	" " "
"	Lot 4	53.00 "	Island

T 120 N - R 22 W

Section 6 - Government	Lot 1	11.83 acres	Island
"	Lot 2	3.00 "	
"	Lot 3	56.08 "	

Section 5 - Government	Lot 1	14.46 acres	Island
"	Lot 2	28.00 "	
	NW1/4 SW1/4	40.00 "	
Government	Lot 3	33.60 "	
"	Lot 4	34.40 "	
"	Lot 5	10.90 "	

Section 8 - N1/2 NE1/4 NE1/4 20.00 acres

Section 4 - Government	Lot 1	9.22 acres	
"	Lot 2	18.17 "	

Section 9 -	NW1/4 NW1/4	40.00 acres	
	NE1/4 NW1/4	40.00 "	
Government	Lot 1	36.88 "	

Section 10 - Government	Lot 3	52.00 acres	
"	Lot 4	28.00 "	
"	Lot 5	20.63 "	North
"	Lot 6	30.50 "	"
"	Lot 1	36.62 "	Island
"	Lot 2	33.85 "	"
	NE1/4 SE1/4 SW1/4	10.00 "	

Section 11 - Government	Lot 1	28.82 acres	
"	Lot 2	41.25 "	
"	Lot 3	29.14 "	
	SW1/4 SE1/4	40.00 "	
Government	Lot 4	26.60 "	

Section 14 - NE1/4 NE1/4 40.00 acres

LAND USE DISTRICT - ACREAGE IN HENNEPIN COUNTY

T 120 N - R 22 W

Section 13	-	Government	Lot 1	12.07	
		"	Lot 2	29.66	
		"	Lot 3	47.75	
		"	Lot 4	47.22	
Section 24	-	Government	Lot 2	39.75	
		"	Lot 3	27.00	
Section 19	-	Government	Lot 1	17.00	north of road
		"	Lot 2	1.00	"

Hennepin County Total	1,185.70
West total	7,508.28
East total	7,993.56
GRAND TOTAL	15,501.84

LAND USE DISTRICT - ACREAGE IN ANOKA COUNTY

T 32 N - R 25 W

Section 19 - Government	Lot 4	29.00	acres	SW of Road
	NW1/4 SW1/4	11.00	"	South of Road
Government	Lot 5	32.00	"	SW of Road
"	Lot 6	22.00	"	" " "
	SE1/4 SE1/4	4.00	"	South of Road
Section 30 - Government	Lot 1	44.80	acres	
"	Lot 2	45.80	"	
Section 29 - Government	Lot 1	38.60	acres	
"	Lot 2	50.70	"	
"	Lot 3	39.90	"	
"	Lot 4	35.55	"	
Section 32 - Government	Lot 1	7.20	acres	
Section 28 - Government	Lot 1	36.84	acres	
Section 33 - Government	Lot 1	22.95	acres	
"	Lot 2	40.30	"	
"	Lot 3	36.10	"	South
Section 34 - Government	Lot 1	29.18	acres	
"	Lot 2	38.30	"	South
"	Lot 3	27.82	"	South
"	Lot 4	28.50	"	"
Section 35 - Government	Lot 1	10.00	acres	
"	Lot 2	33.28	"	
	SW1/4 NE1/4 SW1/4	10.00	"	

T 31 N - R 25 W

Section 2 - Government	Lot 4	43.18	acres	
"	Lot 3	17.22	"	West of Road
"	Lot 2	43.32	"	" " "
"	Lot 1	18.92	"	
Section 1 - Government	Lot 6	25.00	acres	West of Road
	SW1/4 SE1/4 SW1/4	5.00	"	" " "
Section 12 - Government	Lot 1	39.53	acres	
"	Lot 5	15.00	"	West of Road
"	Lot 2	9.00	"	North of Bridge

Anoka County Total 889.99
 East Total 7,993.56

SCENIC EASEMENT IN SHERBURNE COUNTY

T 35 N - R 31 W

Section 13	-	Government	Lot 4	49.00	the west
		"	Lot 5	37.10	the south
		"	Lot 6	48.30	
		"	Lot 7	23.47	the south
Section 24	-	Government	Lot 1	33.60	
		"	Lot 2	48.82	except the island
		"	Lot 3	30.85	" " "
		"	Lot 4	18.50	" " " (the west)
Section 25	-	Government	Lot 1	8.38	except the island (the west)
		"	Lot 2	10.85	" " "
		"	Lot 3	54.57	" " "

T 35 N - R 30 W

Section 30	-	Government	Lot 1	43.24	
Section 31	-	Government	Lot 3	27.00	all but NE 40
		"	Lot 2	13.74	
		"	Lot 1	39.55	the south
Section 32	-	SW1/4 NW1/4	SW1/4	10.00	
		Government	Lot 1	41.58	
Section 5	-	Government	Lot 1	32.29	
		"	Lot 2	27.10	
		"	Lot 3	21.42	
		"	Lot 4	44.00	
Section 8	-	Government	Lot 1	52.60	the west
Section 9	-	Government	Lot 1	42.75	the south
		"	Lot 2	38.40	
		"	Lot 3	50.30	
Section 16	-	Government	Lot 1	43.00	
		"	Lot 2	38.70	
Section 15	-	Government	Lot 2	28.55	the south
		S1/2 SE 1/4	NW 1/4	20.00	
		Government	Lot 3	40.20	
		"	Lot 4	18.60	the south
		"	Lot 5	9.90	
		"	Lot 6	30.85	

SCENIC EASEMENT IN SHERBURNE COUNTY - continued

T 35 N - R 30 W

Section 14	-	S1/2 SW1/4 SW1/4	20.00	
Section 22	-	Government Lot 1	11.00	
Section 23	-	NW1/4 NW1/4	40.00	
		Government Lot 1	33.24	
		" Lot 3	43.80	all but 4 acres-Stickney wayside
Section 26	-	Government Lot 1	30.20	all but NE 20 acres
Section 25	-	Government Lot 1	21.68	just the SW
		" Lot 2	11.00	
		" Lot 3	31.00	south
		"	19.70	south
Section 36	-	Government Lot 1	54.00	

T 34 N - R 29 W

Section 30	-	Government Lot 1	24.05	the west
		" Lot 2	26.84	
		" Lot 3	24.00	
		" Lot 4	30.57	
		" Lot 5	34.50	
Section 31	-	Government Lot 1	.77	
		" Lot 2	8.30	
Section 32	-	Government Lot 1	24.25	the west
		" Lot 2	18.00	the south
		" Lot 3	5.80	" "
Section 34	-	Government Lot 2	21.90	
Section 35	-	Government Lot 1	14.00	south of road

T 33 N - R 29 W

Section 3	-	Government Lot 1	18.34	
Section 2	-	Government Lot 2	10.00	south of road
		" Lot 3	3.00	" " "
		" Lot 4	17.00	the west
		" Lot 5	25.55	
		" Lot 6	56.20	
Section 11	-	Government Lot 1	18.34	

SCENIC EASEMENT IN SHERBURNE COUNTY - continued

T 33 N - R 29 W

Section 12	-	Government	Lot 1	42.35	
		"	Lot 2	41.16	south
		"	Lot 3	19.28	"
		"	Lot 4	36.10	the west
		"	Lot 5	15.33	" "
Section 13	-	Government	Lot 1	32.55	
		"	Lot 2	14.44	

T 33 N - R 28 W

Section 18	-	W1/2 NW1/4	NW1/4	23.40	
		W1/2 SW1/4	NW1/4	23.40	
		Government	Lot 2	28.50	
		"	Lot 1	30.90	
		S1/2 NE1/4	SW1/4	20.00	
		SW1/4	SE1/4	40.00	
		SE1/4	SE1/4	30.00	all but NE1/4
Section 19	-	Government	Lot 3	40.13	
Section 20	-	Government	Lot 5	32.38	south
		"	Lot 4	29.70	
		"	Lot 3	28.40	south
		"	Lot 2	25.80	"
Section 21	-	Government	Lot 5	31.42	
		"	Lot 4	39.70	
		"	Lot 3	26.74	
		"	Lot 2	34.20	
		"	Lot 1	36.27	
Section 28	-	Government	Lot 1	25.20	
Section 27	-	Government	Lot 4	58.87	
		"	Lot 3	19.72	west
		"	Lot 2	36.58	
		"	Lot 1	21.52	
Section 34	-	Government	Lot 1	31.20	

T 32 N - R 27 W

Section 6	-	Government	Lot 2	31.40	
		"	Lot 1	11.00	

SCENIC EASEMENT IN SHERBURNE COUNTY - continued

T 33 N - R 27 W

Section 31	-	SE1/4 SW1/4 SE1/4	10.00	
		Government Lot 1	36.60	
Section 32	-	Government Lot 1	30.40	
		" Lot 2	24.60	
Section 33	-	Government Lot 1	19.10	south
		S1/2 SE1/4 SW1/4	20.00	
		S1/2 SW1/4 SE1/4	20.00	
		Government Lot 2	17.10	south

T 32 N - R 27 W

Section 4	-	Government Lot 2	6.20	
		" Lot 1	6.80	

T 33 N R 27 W

Section 34	-	Government Lot 1	12.80	
		" Lot 3	19.80	
		" Lot 4	29.00	
Section 35	-	Government Lot 2	13.84	south

T 32 N - R 26 W

Section 5	-	Government Lot 2	18.00	south
Section 4	-	Government Lot 6	9.00	south
		" Lot 3	16.40	south
		" Lot 2	33.20	
		" Lot 8	18.70	
Section 10	-	Government Lot 2	17.71	
		" Lot 1	3.48	

Sherburne County Total 3,114.07

SCENIC EASEMENT IN ANOKA COUNTY

T 32 N - R 25 W

Section 29	-	Government Lot 2	30.70	
		" Lot 3	19.90	south
Section 32	-	Government Lot 1	7.20	
Section 33	-	Government Lot 1	22.95	
		" Lot 2	20.30	the south
		" Lot 3	16.10	the southwest
Section 34	-	Government Lot 1	19.18	the south
		" Lot 2	28.30	"
		" Lot 3	17.82	"
		" Lot 4	18.50	"

Anoka County Total 200.95

East Total 3,315.02

SCENIC EASEMENTS IN STEARNS COUNTY

T 124 N - R 28 W

Section 24	-	Government	Lot 3	22.92	
		"	Lot 4	23.65	
Section 36	-	Government	Lot 4	27.96	

T 123 N - R 28 W

Section 1	-	Government	Lot 1	11.26	
		"	Lot 2	12.74	the east
		"	Lot 3	35.07	

T 123 N - R 27 W

Section 6	-	Government	Lot 1	19.10	
Section 7	-	Government	Lot 3	10.08	
Section 17	-	Government	Lot 2	34.65	
		"	Lot 1	25.10	
Section 20	-	Government	Lot 2	26.43	
		"	Lot 1	25.18	
		N1/2 SE1/4	NE1/4	20.00	
Section 21	-	Government	Lot 2	6.00	
		"	Lot 1	8.10	
Section 28	-	Government	Lot 2	20.62	
		E1/2 SE1/4	NW1/4	32.00	
		SW1/4	NE1/4	40.00	
		Government	Lot 1	41.26	
Section 27	-	Government	Lot 4	60.97	
		"	Lot 3	31.58	
		"	Lot 2	11.72	
		"	Lot 1	23.85	
Section 26	-	Government	Lot 2	33.25	

Stearns County Total - 603.49

SCENIC EASEMENTS IN WRIGHT COUNTY

T 122 N - R 27 W

Section 1 - Government Lot 3 27.35

T 122 N - R 26 W

Section 7 - Government Lot 3 16.15 west
 " Lot 2 5.00

Section 8 - Government Lot 5 13.36 west
 " Lot 4 11.82
 " Lot 3 6.00
 " Lot 1 16.95

Section 16 - Government Lot 2 34.82
 " Lot 1 17.85

Section 15 - Government Lot 4 18.56
 " Lot 3 30.42
 " Lot 2 9.90
 " Lot 1 13.45

Section 14 - Government Lot 5 23.30
 " Lot 2 5.18
 " Lot 1 18.00
 E1/2 SE1/4 SE1/4 20.00

Section 13 - Government Lot 1 21.58

Section 24 - NW1/4 NW1/4 40.00
 Government Lot 3 28.35
 " Lot 2 19.08
 " Lot 1 19.28
 E1/2 NE1/4 SE1/4 20.00

T 122 N - R 25 W

Section 19 - Government Lot 1 16.26
 " Lot 2 20.32

Section 30 - Government Lot 1 33.15 NE of road
 " Lot 2 26.56 NE of road
 " Lot 3 47.48
 " Lot 4 45.35

Section 31 - Government Lot 1 9.88

SCENIC EASEMENTS IN WRIGHT COUNTY

T 122 N - R 25 W

Section 32	-	Government Lot 4	22.35	
		" Lot 3	16.00	
		" Lot 2	12.56	north
		" Lot 1	12.72	
Section 33	-	Government Lot 1	28.12	north

T 121 N - R 24 W

Section 9	-	Government Lot 2	4.00	
Section 16	-	NE1/4 NW1/4	19.50	
		NW1/4 NE1/4	13.62	
Section 10	-	Government Lot 2	21.00	
		" Lot 3	22.10	
Section 11	-	Government Lot 2	9.42	
Section 14	-	Government Lot 2	35.10	
		" Lot 1	31.46	
Section 13	-	Government Lot 4	36.55	
		" Lot 3	11.87	
		" Lot 2	3.75	
		" Lot 1	14.62	

T 121 N - R 23 W

Section 18	-	Government Lot 4	20.00	southern 20 acres
		" Lot 3	15.20	
		" Lot 2	25.20	
Section 26	-	Government Lot 2	13.70	
		" Lot 3	10.00	NE of road
		" Lot 4	7.00	"
Section 25	-	Government Lot 3	5.00	NE of road
Section 36	-	Government Lot 2	7.00	NE of road
		" Lot 3	12.00	North and NE of road
		" Lot 4	32.88	
		" Lot 5	13.00	North of road & west of Crow River

Wright County total 1,111.12

SCENIC EASEMENTS IN HENNEPIN COUNTY

T 120 N - R 22 W

Section 5	- Government Lot 5	9.10	N of road
Section 8	- NE1/4 NE1/4	2.00	N of road
Section 4	- Government Lot 1	9.22	
Section 9	- NW1/4 NW1/4	12.00	N of road
	NE1/4 of NW1/4	12.00	"
Section 10	- Government Lot 3	25.00	NE of road
	NE1/4 SE1/4 SW1/4	2.00	"
	Government Lot 4	16.00	"
	" Lot 5	20.63	North
	" Lot 6	30.50	North
Section 11	-- Government Lot 1	28.82	
	" Lot 2	41.25	
	" Lot 3	29.14	
	" Lot 4	26.60	
Section 14	- NE1/4 NE1/4 NE1/4	10.00	
Section 13	- Government Lot 1	12.07	
	" Lot 2	19.66	
	" Lot 3	27.75	east

Hennepin County Total	333.74
West total	2,048.35
East total	3,315.02
GRAND TOTAL	5,363.37

FEE ACQUISITION IN SHERBURNE COUNTY

T 35 N - R 31 W

Section 24	-	Government	Lot 2	26.00	Island
		"	Lot 3	42.00	"
		"	Lot 4	36.00	"
Section 25	-	Government	Lot 1	43.00	Island
		"	Lot 2	29.00	"
		"	Lot 3	10.00	"

T 33 N - R 29 W

Section 2	-	Government	Lot 1	10.64	Island
Section 19	-	Government	Lot 2	14.00	
		"	Lot 1	2.68	
Section 20	-	Government	Lot 6	52.81	Island
		unsurveyed		4.50	"
		unsurveyed		5.00	"
		Government	Lot 1	9.38	"
Section 21	-	Government	Lot 6	45.97	Island

T 32 N - R 27 W

Section 2	-	Government	Lot 4	45.25	Island
		"	Lot 3	3.93	"
		"	Lot 1	38.55	

T 32 N - R 26 W

Section 4	-	Government	Lot 7	23.80	Island
		"	Lot 1	2.85	"
Section 5	-	Government	Lot 1	8.29	"
Section 3	-	Government	Lot 5	6.85	"
Section 14	-	Government	Lot 4	12.77	West
		"	Lot 3	41.42	West

Sherburne County Total 514.69

FEE ACQUISITION IN ANOKA COUNTY

T 32 N - R 25 W

Section 33

9.16

Anoka County Total 9.16

East Total 523.85

FEE ACQUISITION IN STEARNS COUNTY

T 124 N - R 28 W

Section 12		1.45	
	unsurveyed island	5.00	Island
	unsurveyed island	2.00	

Section 25		28.00	
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T 123 N - R 27 W

Section 17	unsurveyed island	2.00	
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Section 20	unsurveyed island	12.00	
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Section 21	unsurveyed island	1.00	
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Stearns County Total		51.45	
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FEE ACQUISITION IN WRIGHT COUNTY

T 121 N - R 24 W

Section 16	-	Government Lot 3	16.22	
		" Lot 2	24.47	

T 121 N - R 23 W -

Section 9	-	unsurveyed island	6.90	
Section 18	-	Government Lot 1	6.51	Island
Section 7	-	Government Lot 1	11.80	Island
Section 25	-	Government Lot 1	6.48	Island
		" Lot 2	18.90	"
Section 36	-	Government Lot 1	30.20	Island

Wright County Total 121.48

FEE ACQUISITION IN HENNEPIN COUNTY

T 121 N - R 22 W

Section 31 - Government Lot 4	53.00	Island
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T 120 N - R 22 W

Section 6 - Government Lot 1	11.83	"
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Section 5 - Government Lot 1	14.46	"
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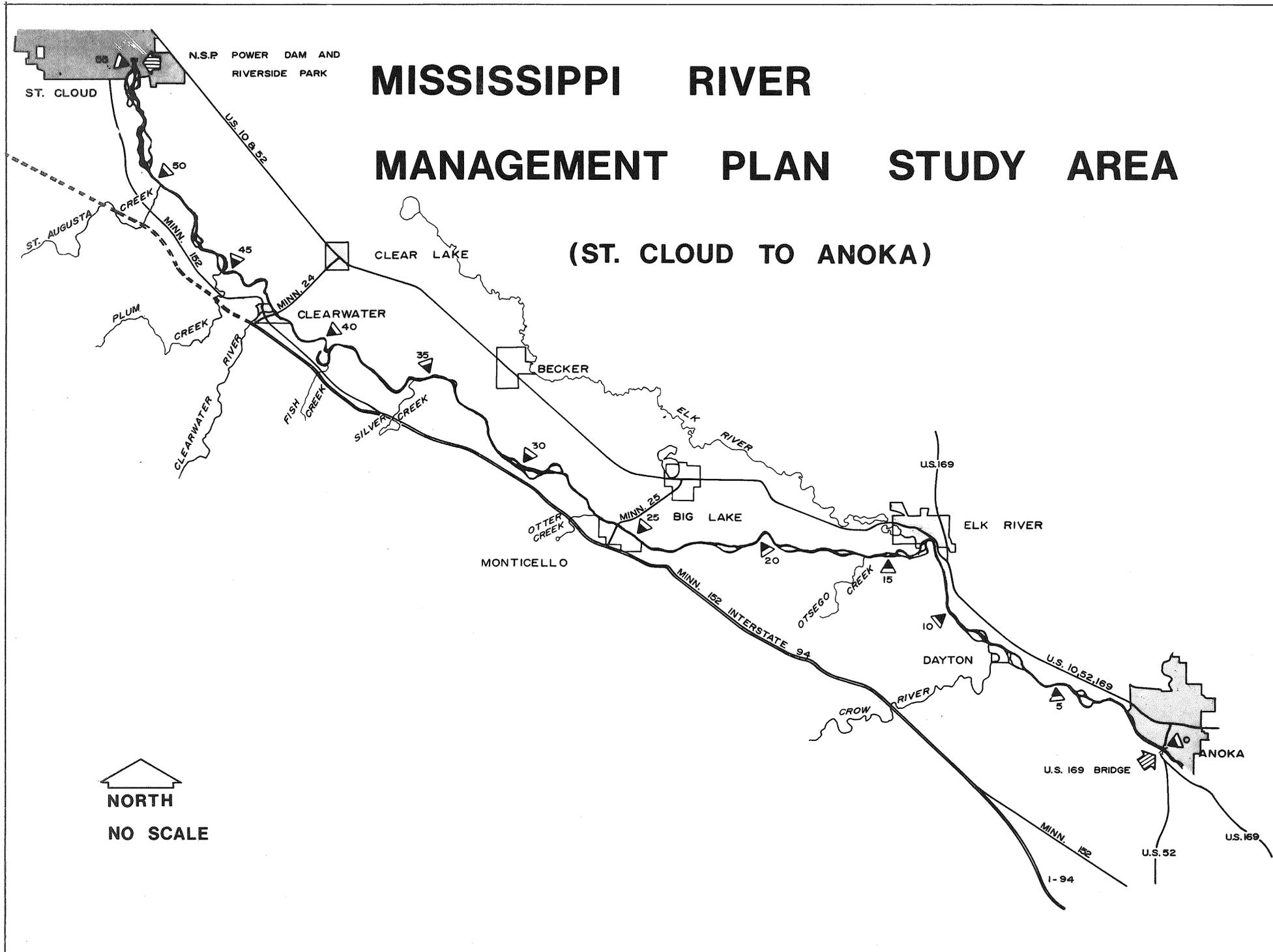
Section 10 - Government Lot 1	36.82	"
" Lot 2	33.85	"

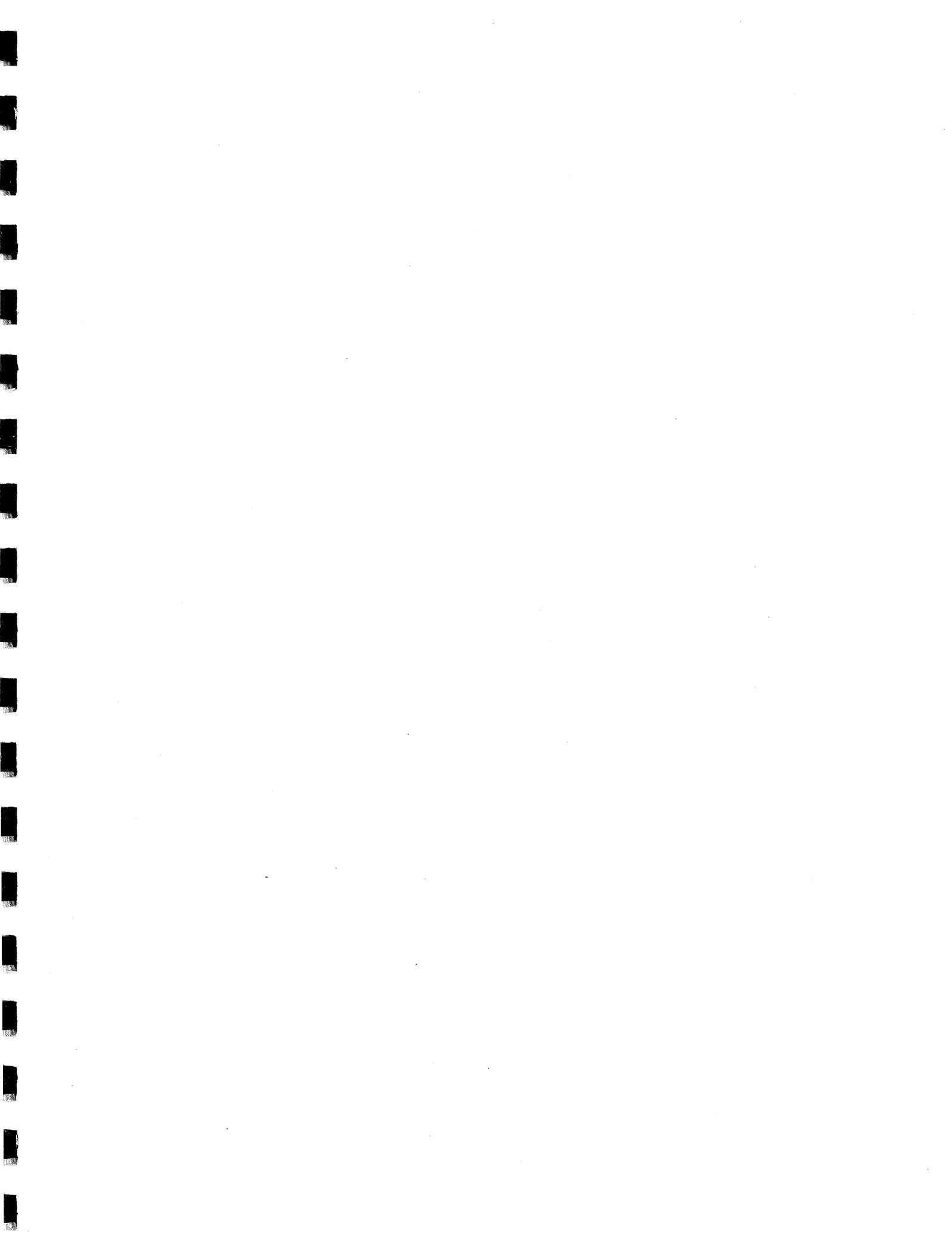
Hennepin County Total	149.96
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West Total	322.89
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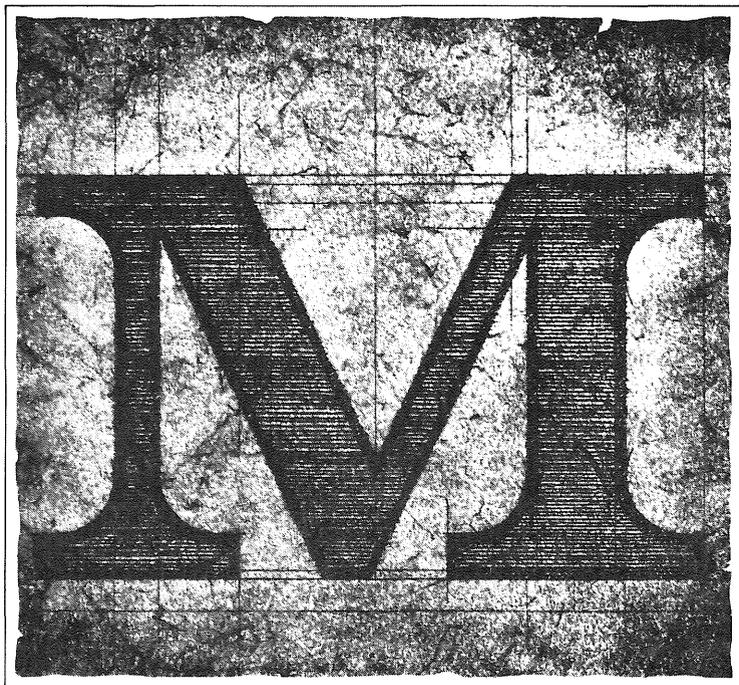
East Total	523.85
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GRAND TOTAL	846.74
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ANALYSIS



ROUTE DESCRIPTION *

<u>River Mile</u>	<u>Description</u>
54.3	BEGINNING - Study area starts at St. Cloud dam; portage on the right or west. Access on east bank at Riverside Park. Light rapids below the dam.
54.0 - 52.3	Beaver Islands - These islands are also called the Thousand Islands, an exaggeration of their number (about 30). They received the name Beaver Islands in 1805 from the explorer Zebulon Pike. Talahi environmental education area on east bank, south of Riverside Park.
52.0	Vicinity of Battise Steamboat Landing, 1870.
51.5 - 50.0	Mosquito Rapids (very light). Grand Island - more than a mile long; main channel to the west of the island. Site of early trading post and of Pike's campsite in 1806 on this island.
49.5	Very light rapids. Scenic woods on west bank.
48.9	Mouth of St. Augusta Creek. Vicinity of Red River Inn (1846), first settlement in Sherburne County, on east bank. Site of early mills near mouth of St. Augusta Creek (also called Johnson's Creek after one of the early pioneers). Scenic bluffs on west bank.
47.0	Steep bluff (60 to 70 feet) on east bank.
46.5 - 46	Group of small islands. Heavily wooded area on east bank. General vicinity of Pike's campsite of October 9, 1805.
45.0	Greenwoods Island. Mouth of Plum Creek with scenic bluff on west bank.
42.5	Vicinity of historic John Stevenson homestead, trading post and stage stop (1850), and original site of Clear Lake Village.
42.0 - 41.0	Town of Clearwater, vicinity of Pike's campsite of October 8, 1805, and the mouth of Clearwater River. Also the site of the historic Clearwater Ferry and early flour and saw-mills. State Highway #24 bridge, with Stickney Highway Rest Area on east end. This rest area provides excellent access and good rest and picnic facilities.

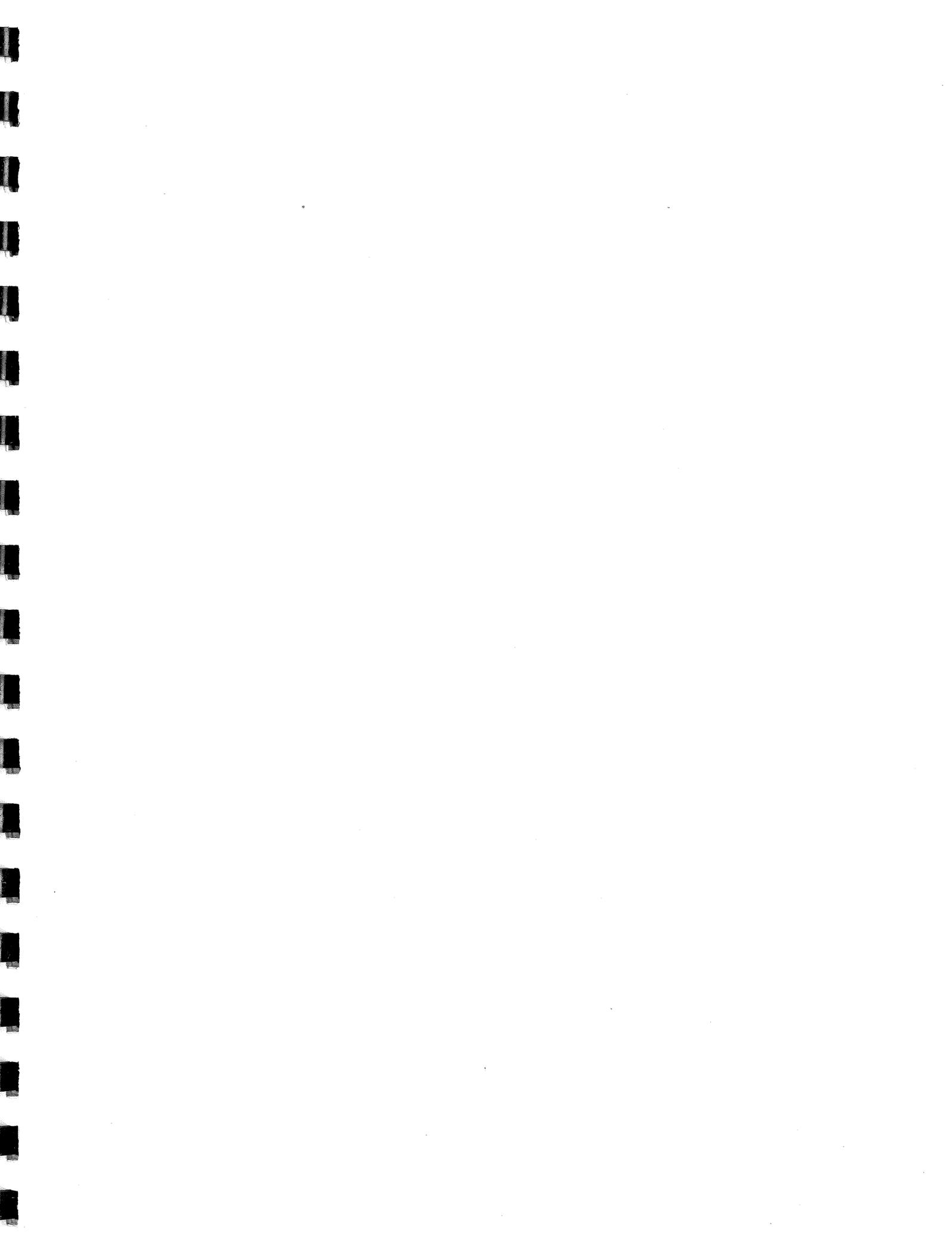
* Some names, particularly of islands, have changed throughout the years. For consistency, most of the islands and rapids names are taken from the Corps of Engineers' survey of 1899.

- 38.7 Large backwater and sharp bend known as the "Big Bend" or "Big Eddy". Boynton's Island and mouth of Fish (or Bend) Creek. Site of Mark's and White's trading post (1848) on east bank.
- 36.0 - 35.0 Scenic bluffs on southwest side of river.
- 34.6 Mouth of Silver Creek. Smiler's Rapids (light). Site of historic river town of Marseilles (1856) on east bank.
- 33.0 Bear Island; scenic tracts of cedars.
- 33.0 - 32.0 Northern States Power Company Sherburne County generating plant on east side of river. Scenic stretch of river.
- 29.3 - 27.3 Cedar Rapids (light) and group of islands, including Cedar Island and Thompson Island. Vicinity of Pike's campsite of October 6, 7, 1805.
- 28.2 Northern States Power Company Monticello Nuclear Generating Plant on west side of river.
- 26.5 - 26.0 Montissippi County Park on west bank of river. Picnic facilities and access to river.
- 25.3 Mouth of Otter Creek. Site of early flour and feed mills near mouth of creek on west bank.
- 25.3 - 23.5 Town of Monticello. Vicinity of Pike's campsite of October 5, 1805.
- 24.5 State Highway #25 bridge. Municipal park at west end of bridge in Monticello. Monticello Island.
- 23.8 Ellison Municipal Park. Excellent access and picnic/rest facilities.
- 22.2 Rocking Chair Pool; narrow tree-lined corridor. Battle Rapids (light); locality of battle between Dakota and Chippewa (about 1800). Vicinity of Houghton Brothers Homestead (1848).
- 21.0 Vicinity of early settlement called Manhattan.
- 20.5 - 19.8 Access - Lily Pond Lane. Lily Pond Islands. Vicinity of early settlement called Lilly Pond or Bedford.

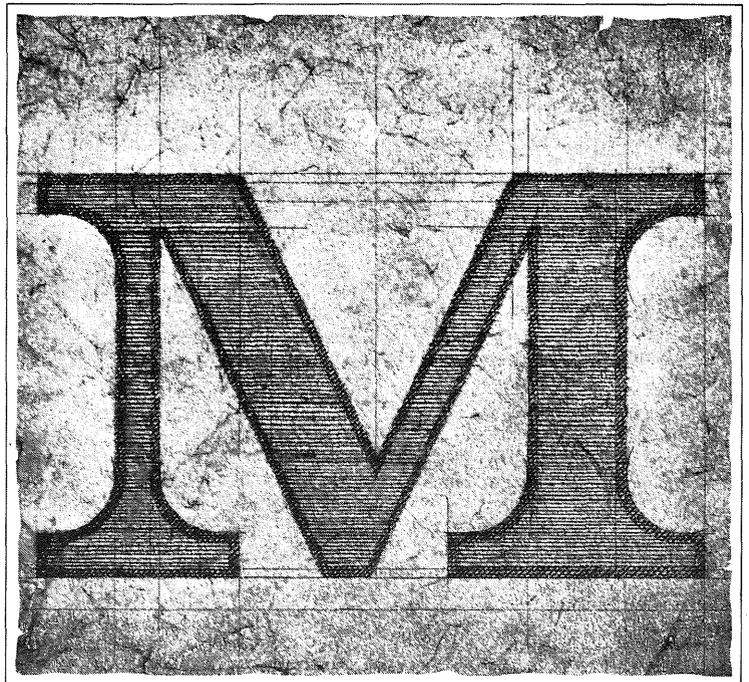
- 18.7 Spring Rapids (light). Site of historic Baker's Ferry.
- 17.5 Dimmick Island, main channel to right. Locality of Pike's campsite of October 4, 1805. High, wooded bluffs along the right bank.
- 15.5 Group of islands, including Davis Island.
- 14.7 - 14.3 Mouth of creek at historic village of Otsego. Site of early ferry crossing.
- 14.0 - 12.0 Several large islands. General location of two major battles between the Dakota and Chippewa (1772, 1773) on "Battle Point" between the Mississippi and Elk Rivers.
- 12.4 Mouth of the Elk River.
- 12.0 Town of Elk River. Site of Bottineau's trading post (1848), early mills and ferry crossing. Large bend in river at Elk River Point. Old Highway #101 bridge.
- 11.4 Access at State Highway Safety Rest Area; picnic and rest facilities. United Power Association generating plant. Both on east bank.
- 10.8 New State Highway #101 bridge.
- 8.8 - 7.8 Kelley Homestead Historic Site, Minnesota Historical Society. Preserves examples of pioneer agriculture and technology. (Settled in 1850).
- 7.5 Dayton Island.
- 7.0 Mouth of Crow River. Site of Indian battle, early ferry crossing.
- 7.0 - 6.5 Town of Dayton on west bank, site of early French trading post. Dayton Rapids (light).
- 6.3 State Highway Safety Rest Area off Highway #10. Access and rest facilities. Remnants of the Red River Ox Cart Trail visible. Vicinity of Pike's campsite of October 3, 1805. Goodin Island - main channel to the left. Site of historic village of Itasca.

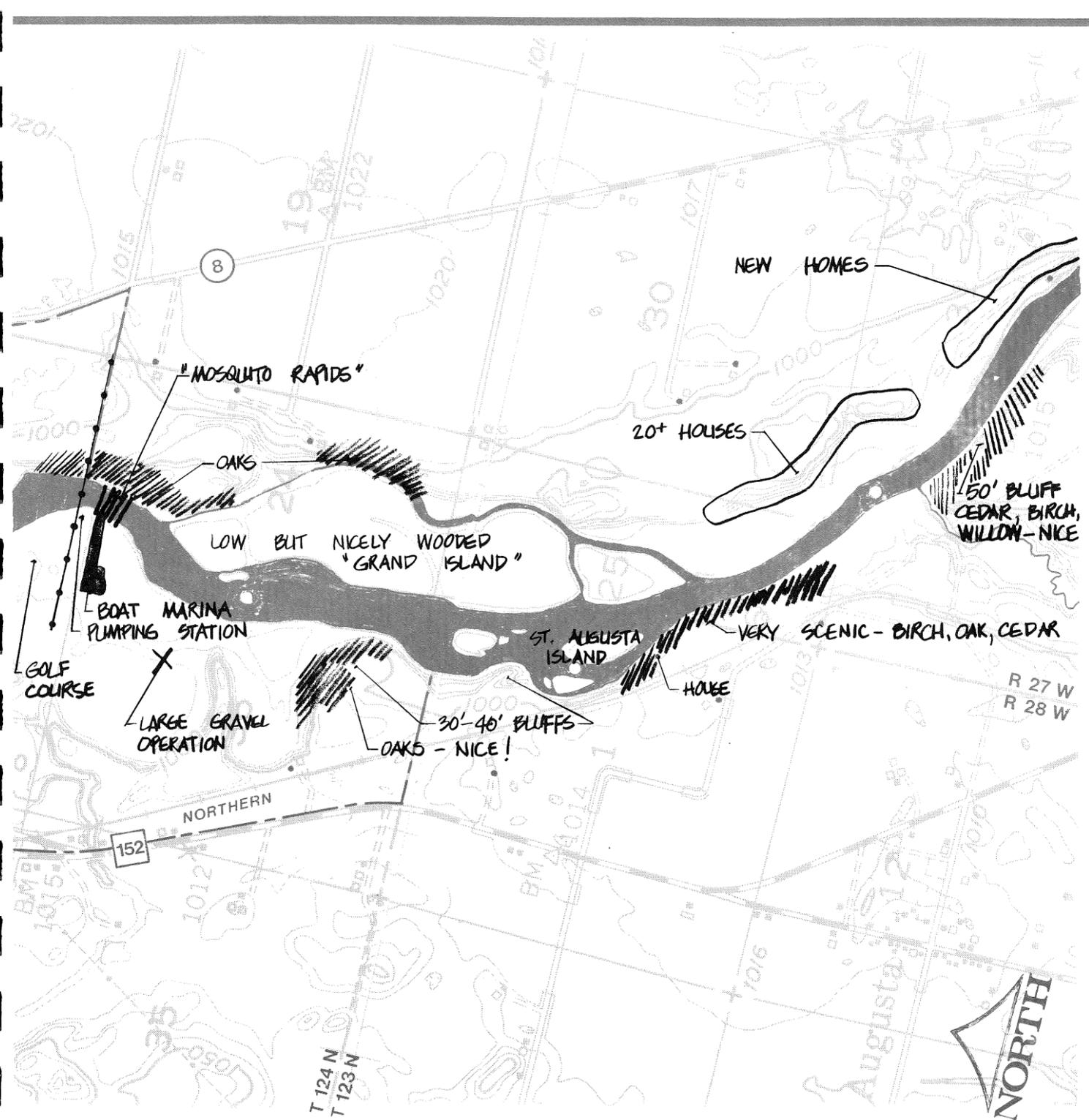
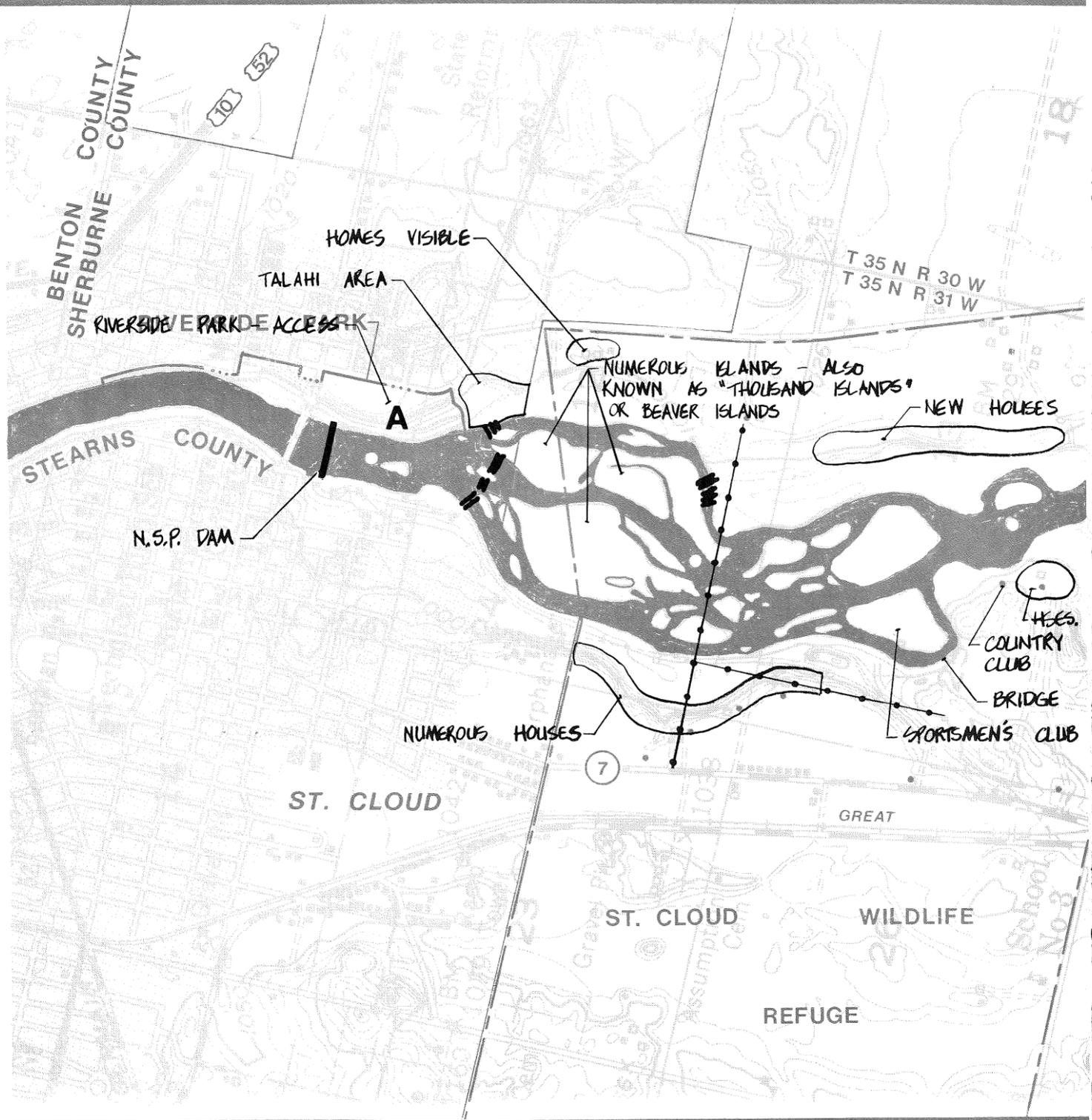
- 5.2 Vicinity of early settlers fort "Winnebago", on east bank.
 - 4.5 Scenic bluffs on either side of river.
 - 3.0 Cloquet and Foster Islands - main channel between islands.
 - 2.0 Big or Kings Island on east bank, location of early trading post.
 - 2.0 - 0.0 City of Anoka on east bank and Champlin on west bank. General locality of Pike's campsite of October 2, 1805.
 - 0.0 U. S. Highway #169 bridge. William Belanger's fur trade post (1844) located near mouth of Rum River (1/4 mile downstream from bridge).
- END of study area.





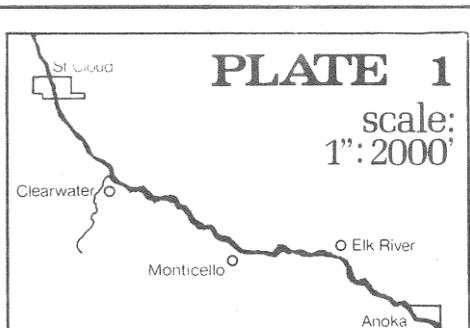
**SITE
ANALYSIS**

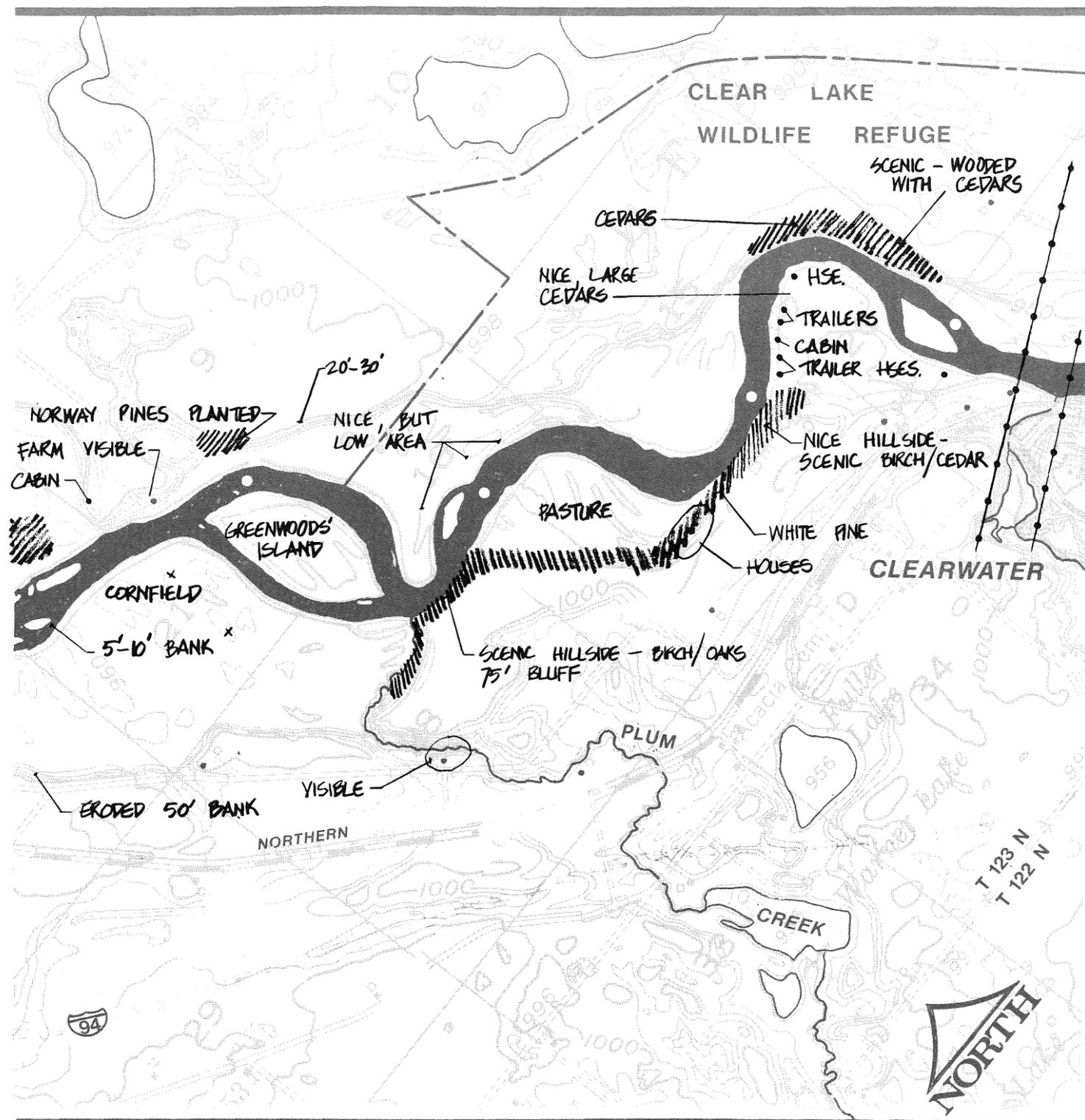
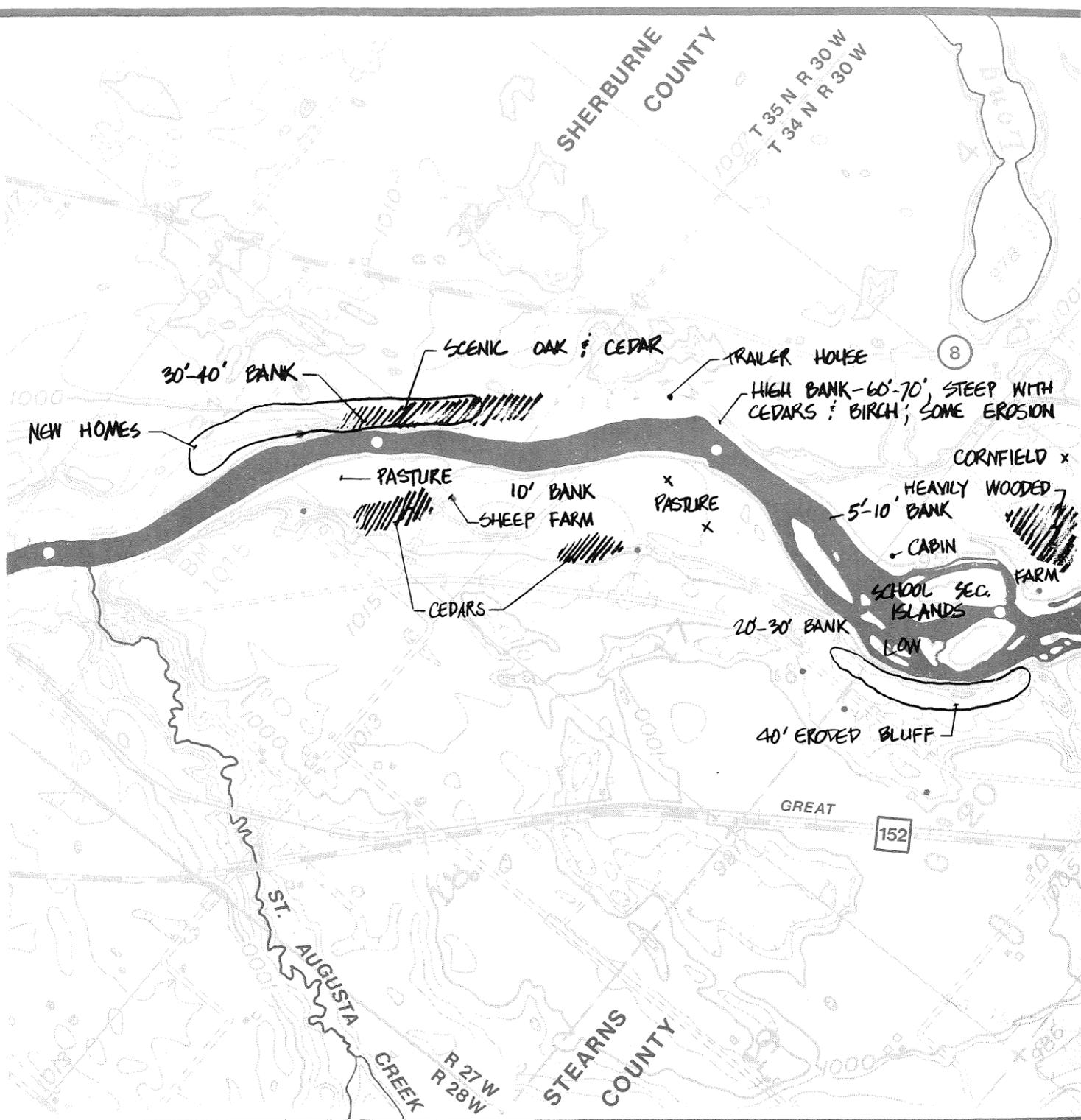




SITE			
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	FEDERAL HWY.		COUNTY PARK
	STATE HWY.		CITY PARK
	C.S.A.H. HWY.		WAYSIDE REST (HWY)
	COUNTY ROAD		RAILROAD
			RIVER MILE

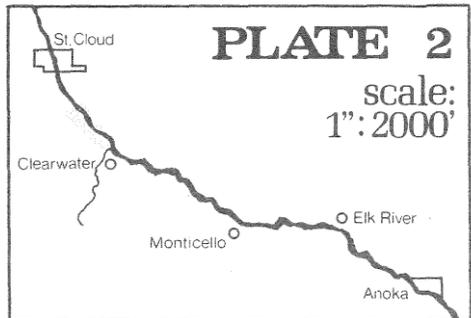
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	POWER PLANT		ACCESS
	POWER LINE		CAMPSITE
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	RESIDENCE		POINT OF INTEREST

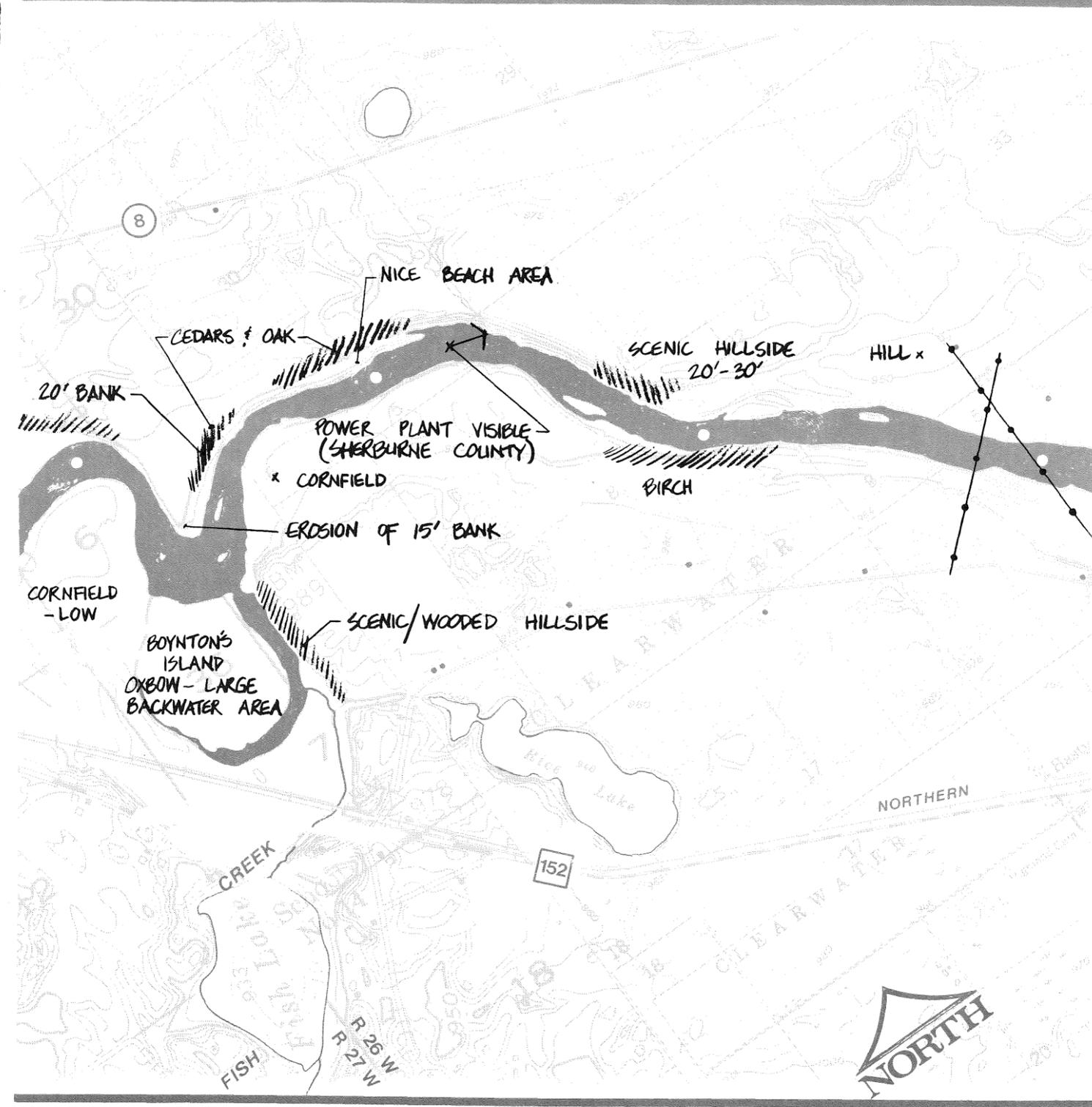
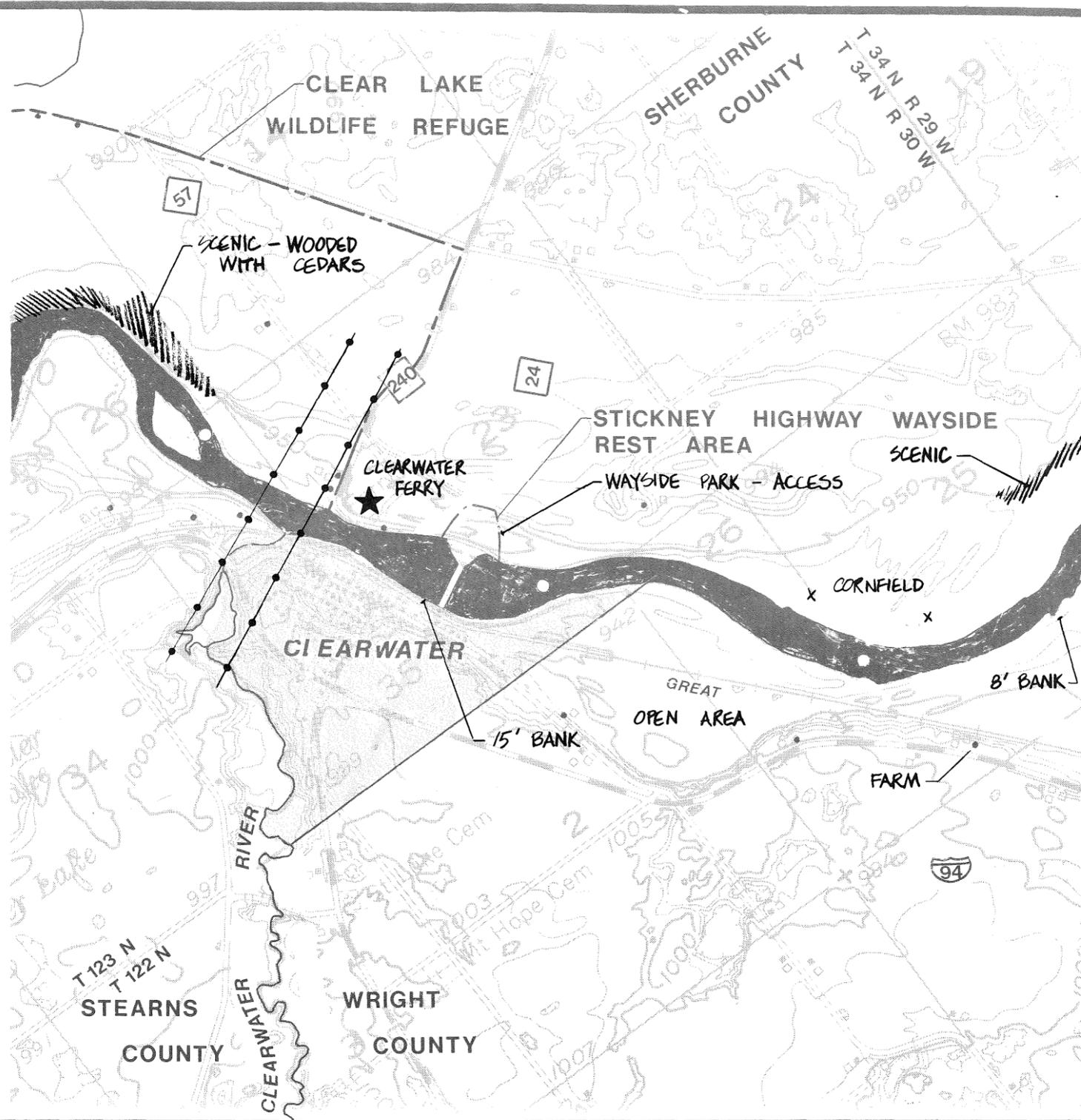




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	STATE HWY.
	C.S.A.H. HWY.
	COUNTY ROAD
	STATE WILD. REFUGE
	COUNTY PARK
	CITY PARK
	WAYSIDE REST (HWY)
	RAILROAD
	RIVER MILE

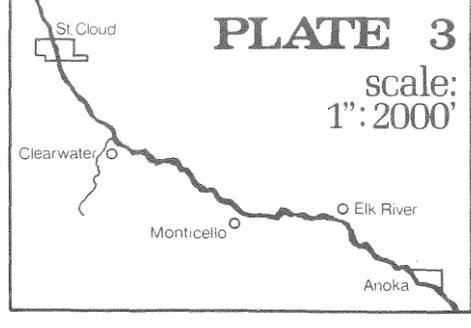
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	TRAIL
	ACCESS
	CAMPSITE
	HISTORIC SITE
	POINT OF INTEREST

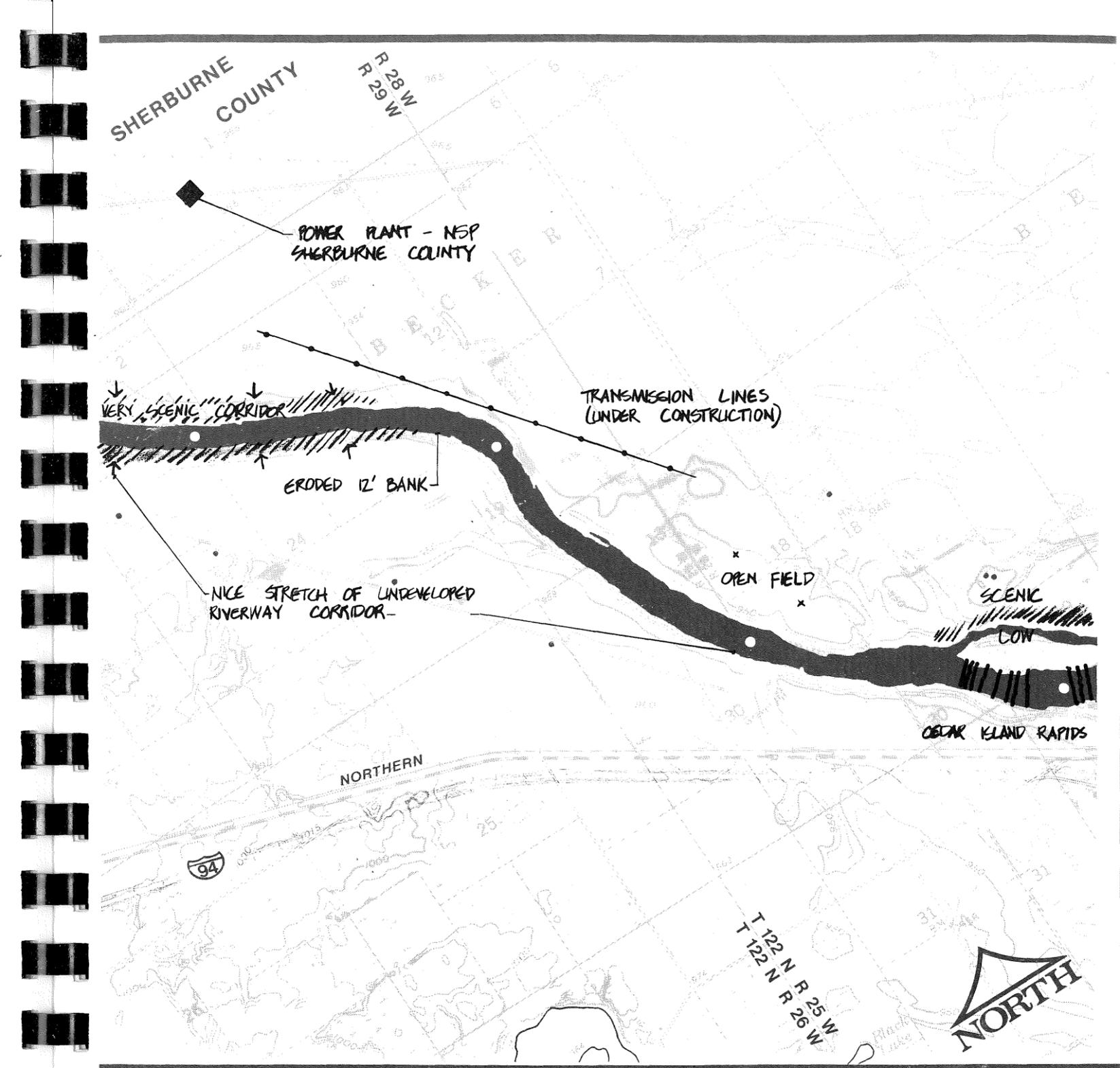
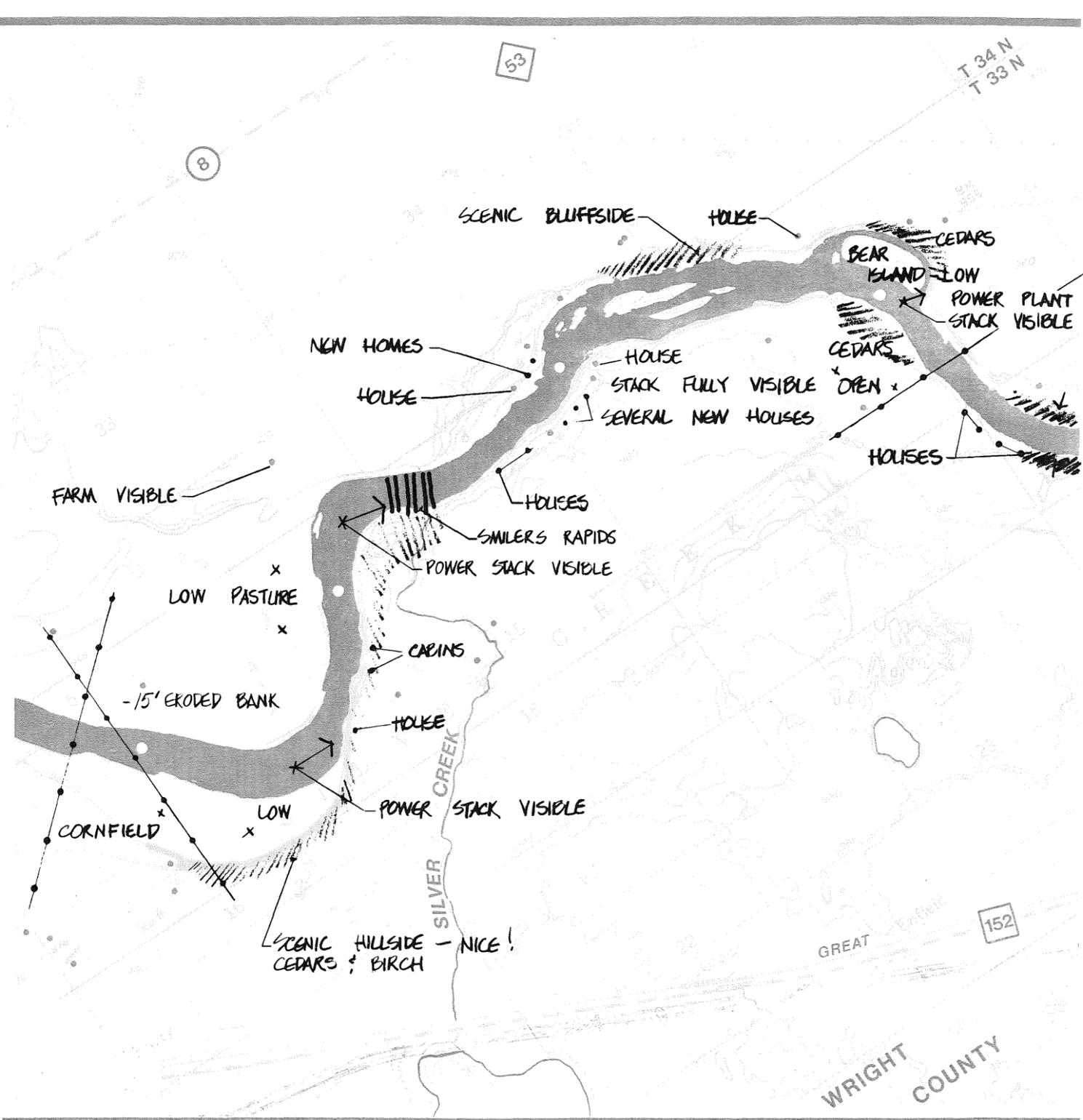




SITE	
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	C.S.A.H. HWY.
	COUNTY ROAD
	STATE WILD. REFUGE
	COUNTY PARK
	CITY PARK
	WAYSIDE REST (HWY)
	RAILROAD
	RIVER MILE

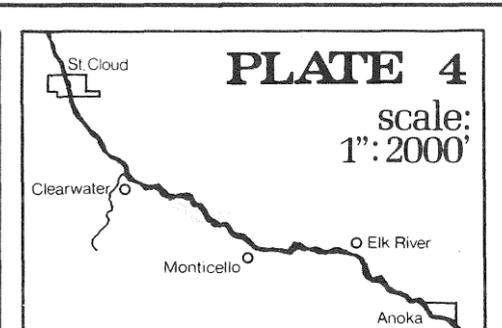
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	TRAIL
	ACCESS
	CAMPSITE
	HISTORIC SITE
	POINT OF INTEREST

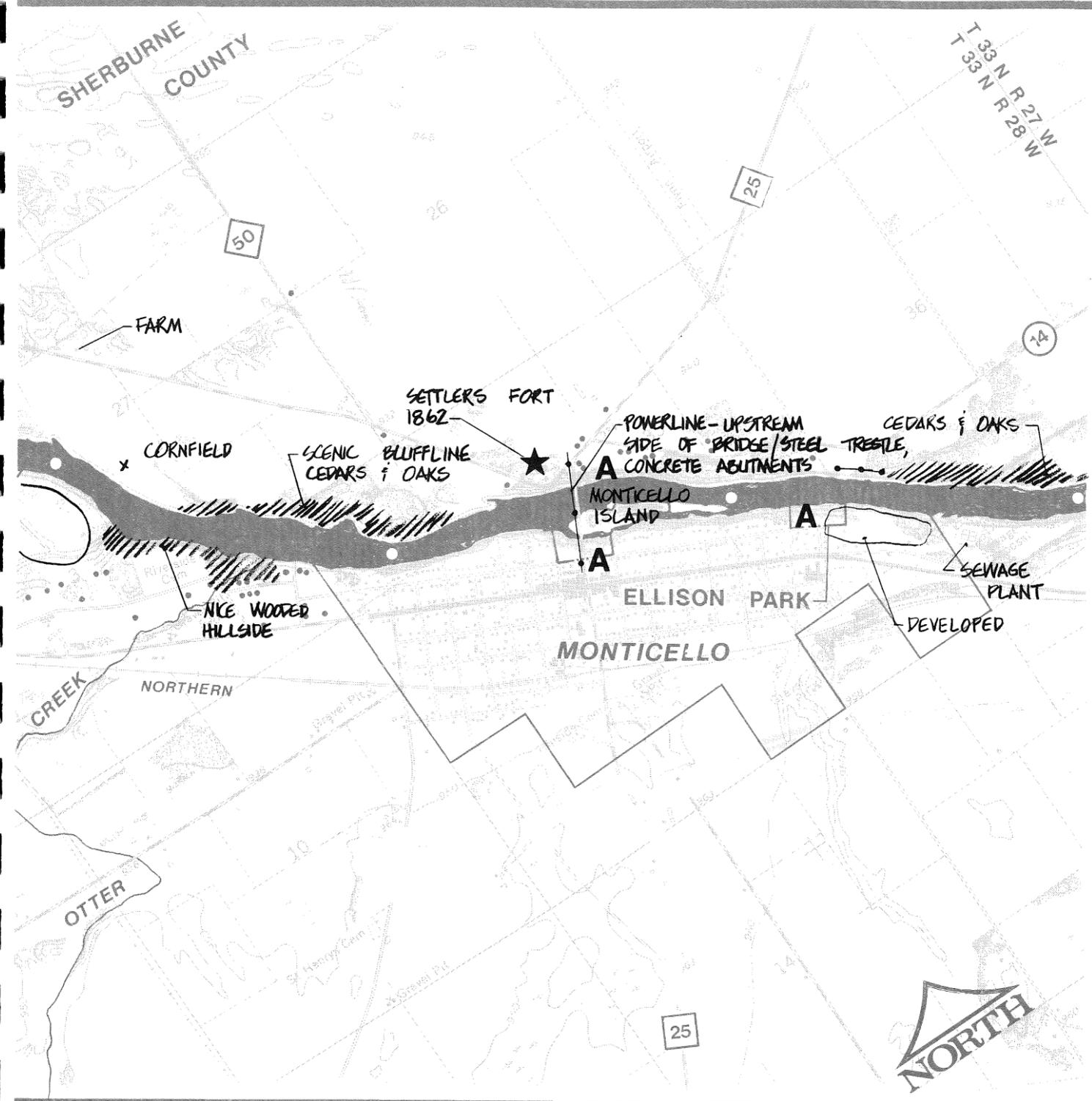
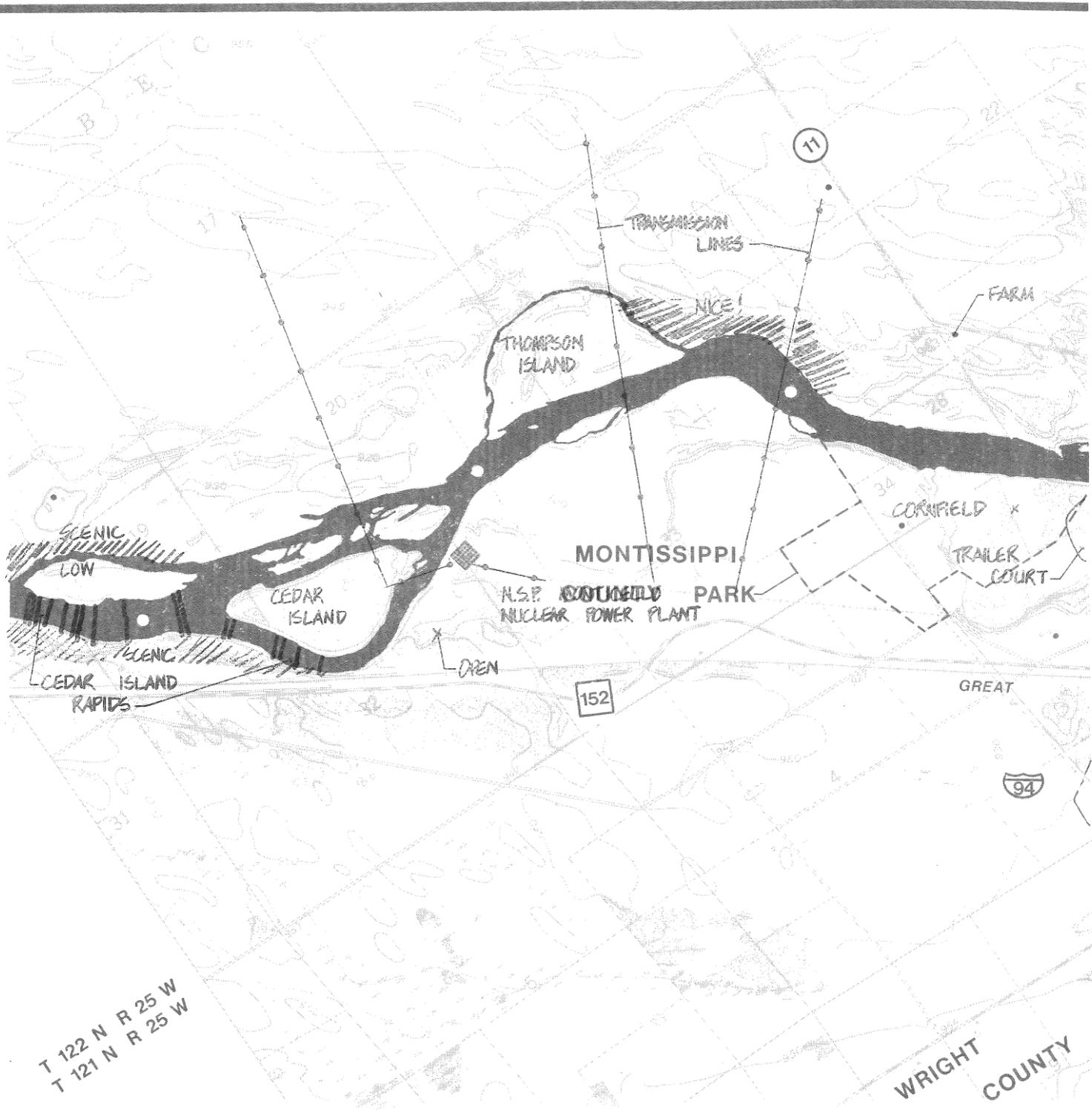




SITE	
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	RAILROAD
	RIVER MILE

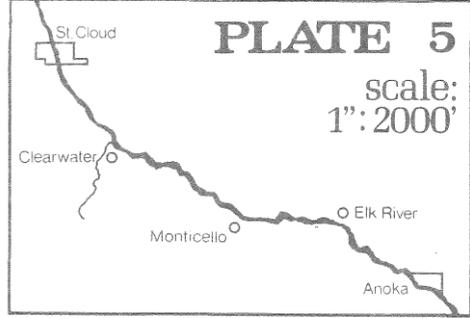
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	PRIVATE FACILITY
	TRAIL
	ACCESS
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	POINT OF INTEREST

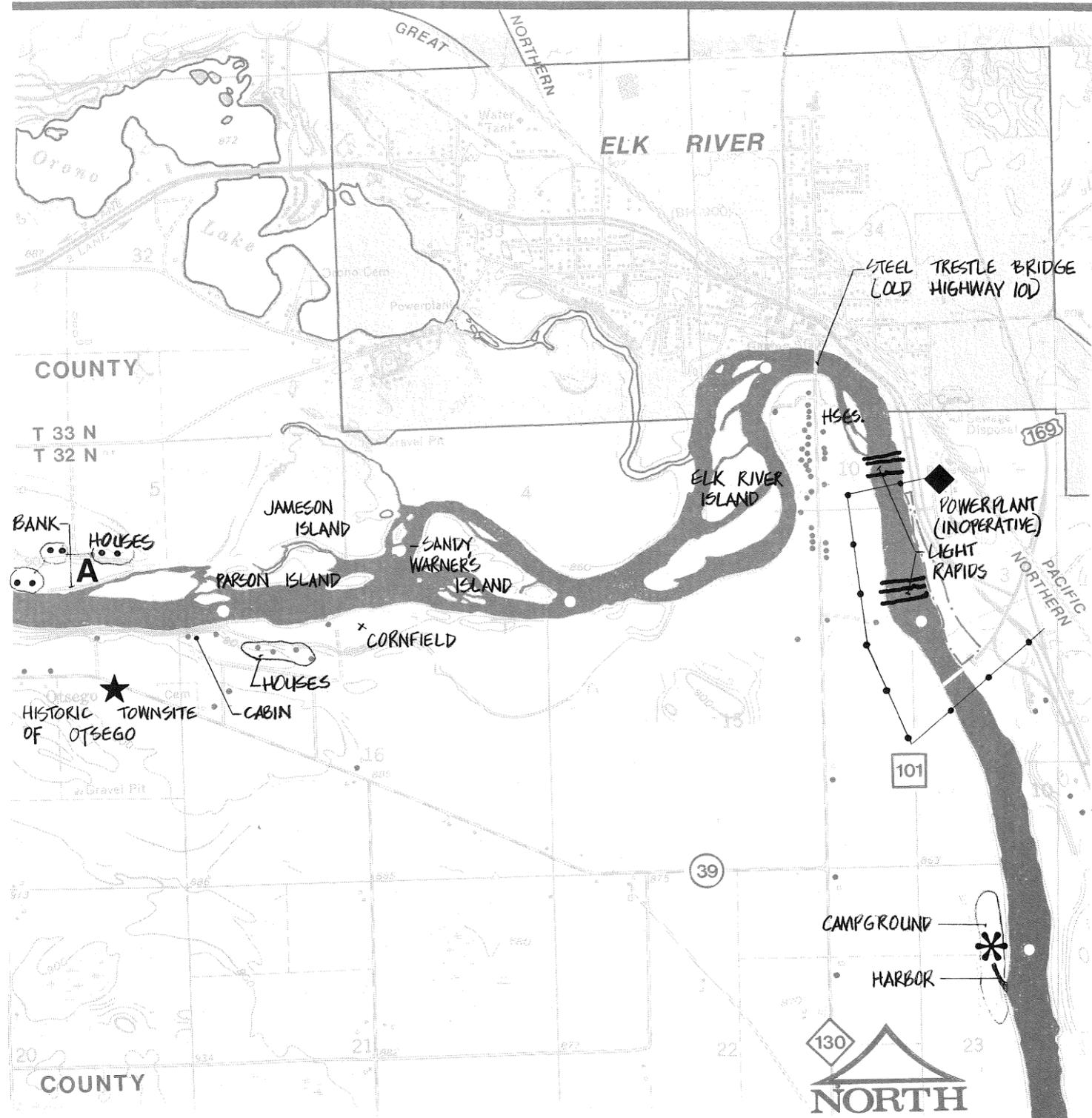
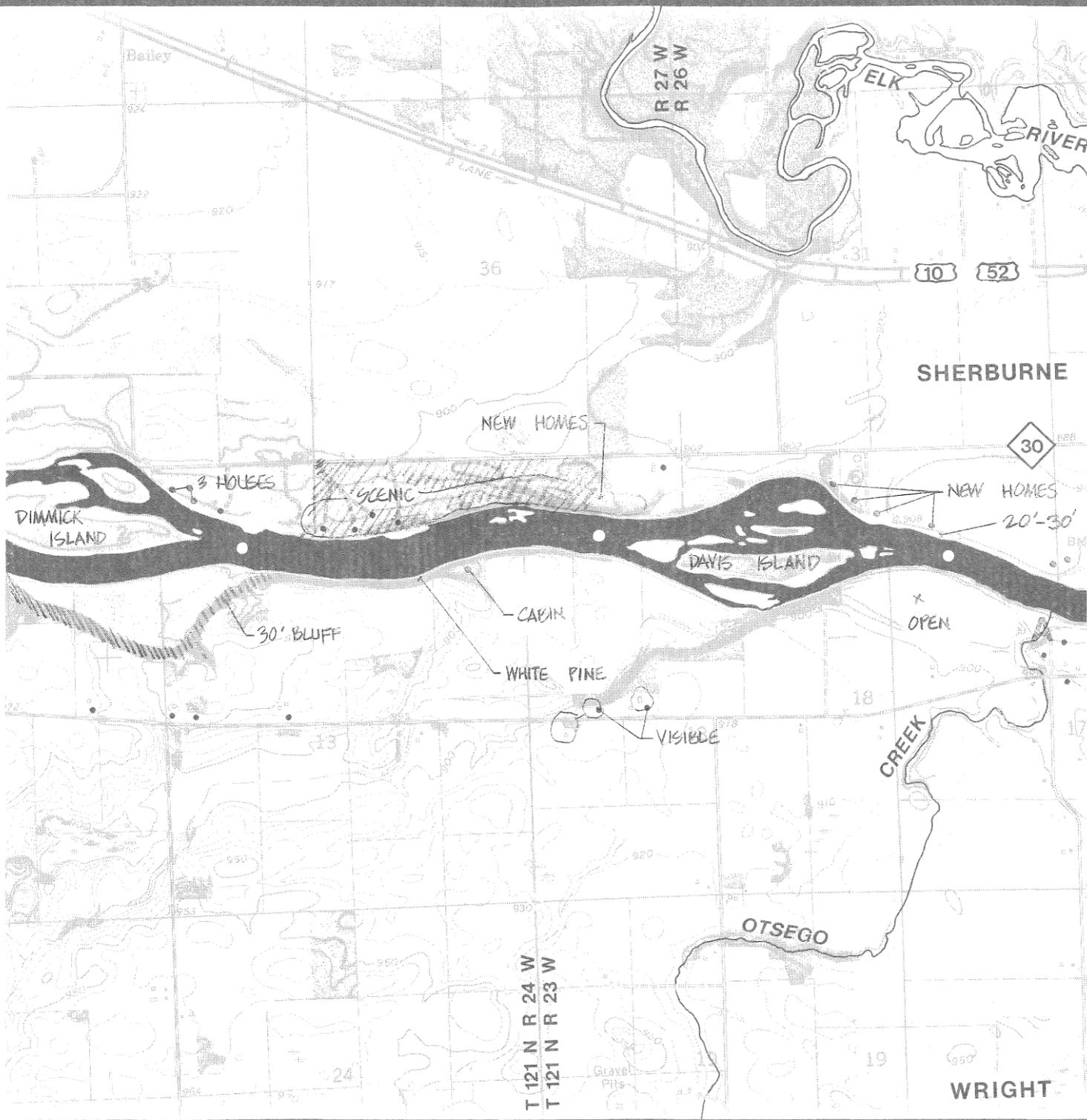




SITE	
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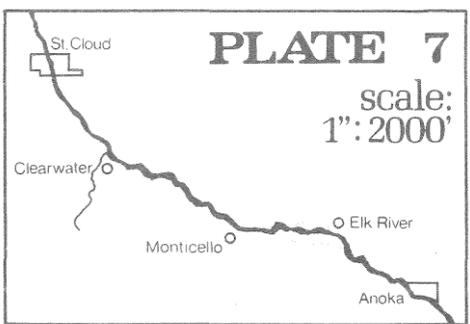
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	TRAIL
	ACCESS
	CAMPSITE
	HISTORIC SITE
	POINT OF INTEREST

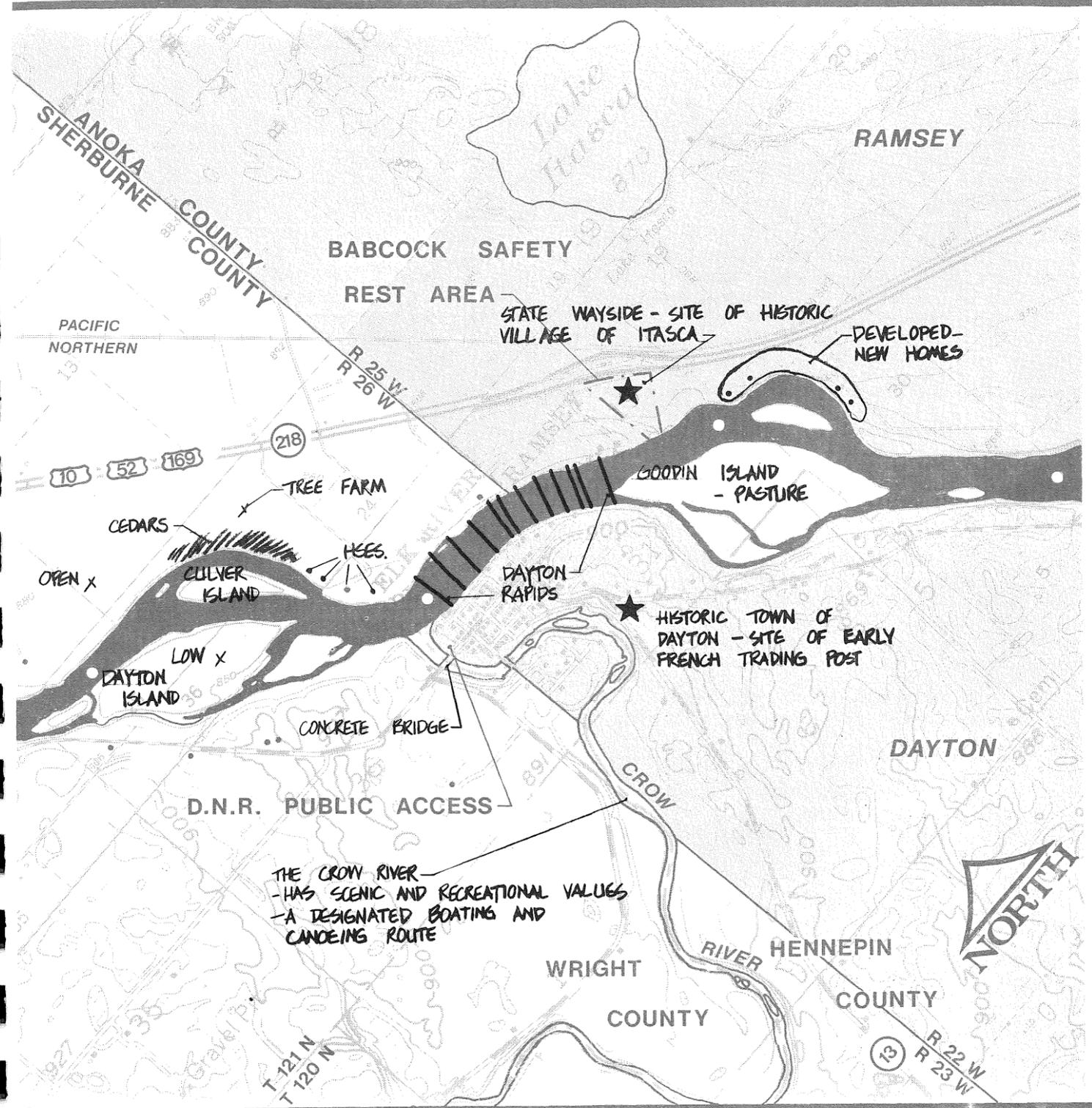
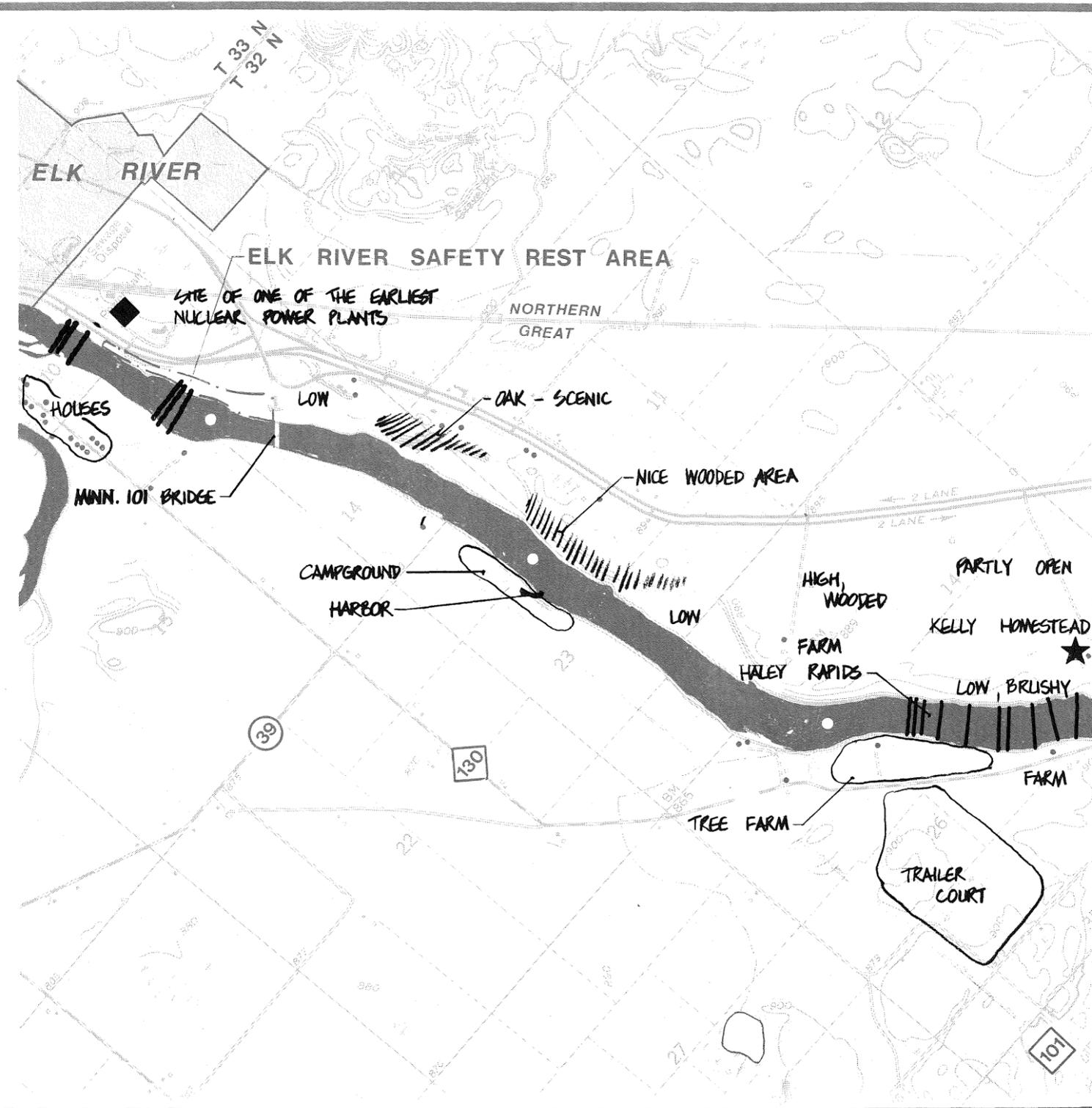




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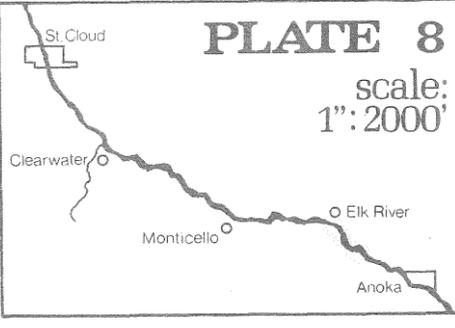
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	HISTORIC SITE
	POINT OF INTEREST

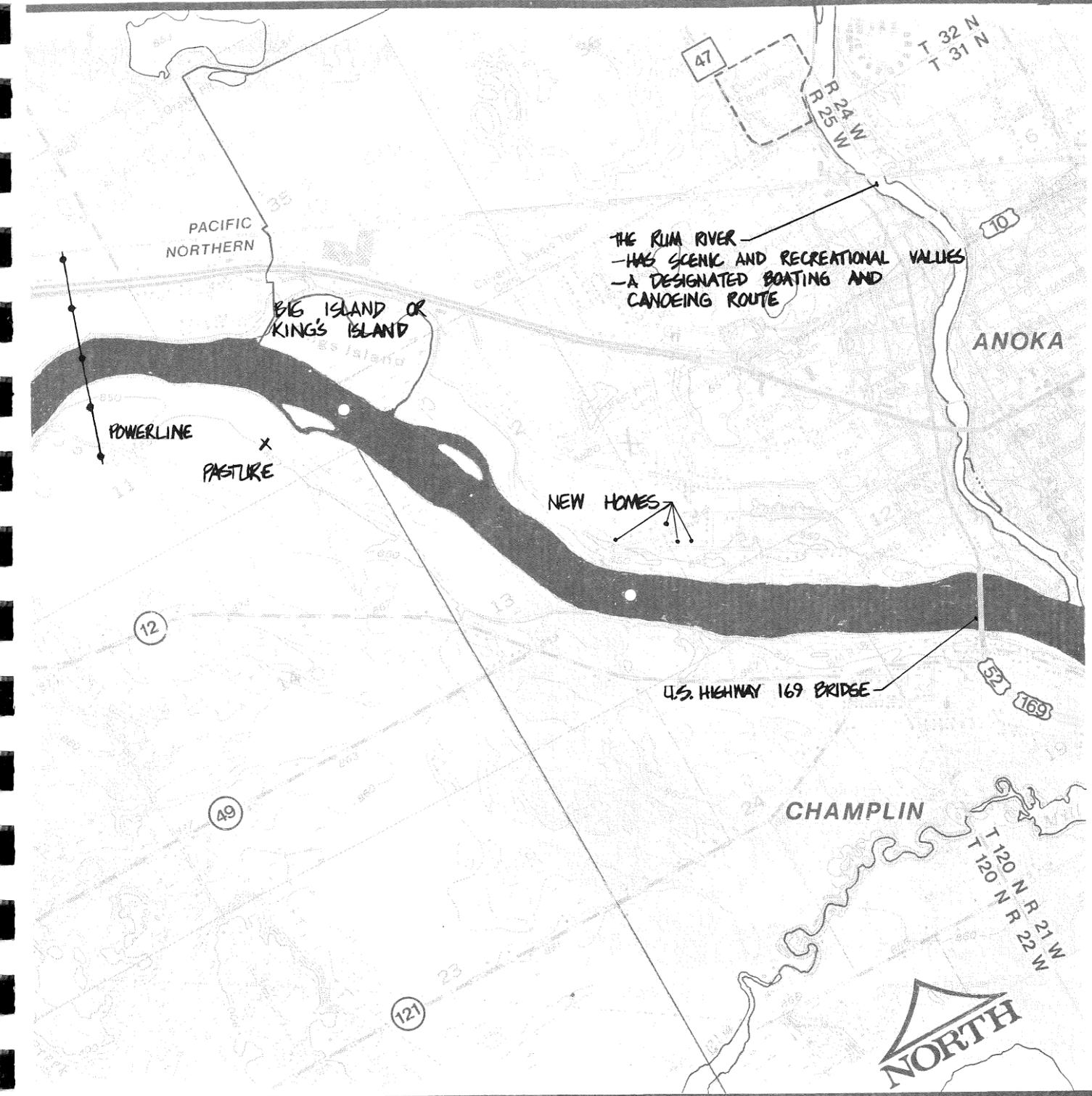
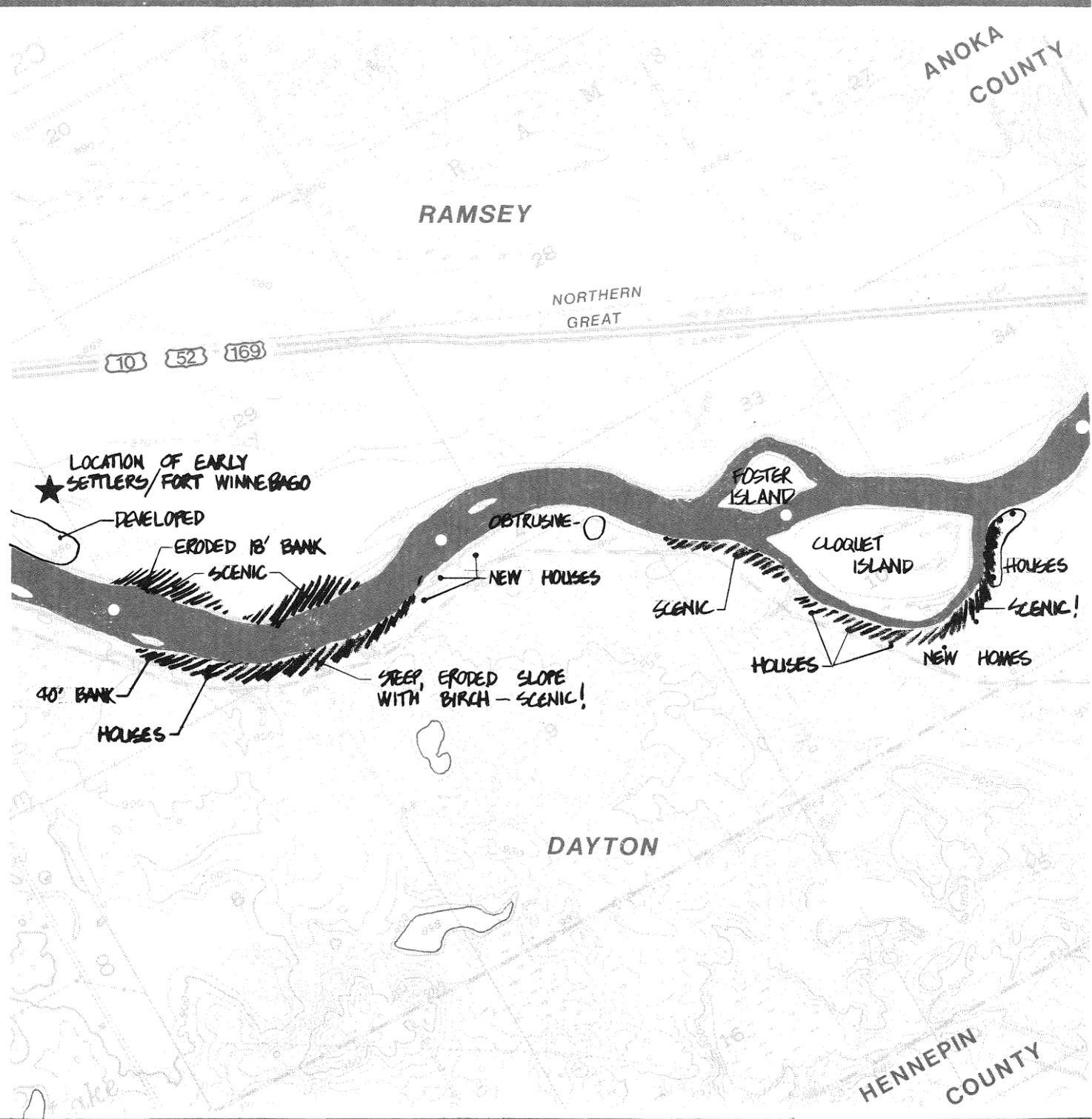




SITE	
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	STATE HWY.
	C.S.A.H. HWY.
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	RIVER MILE

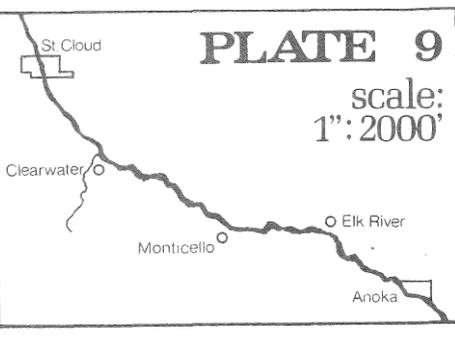
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	POINT OF INTEREST

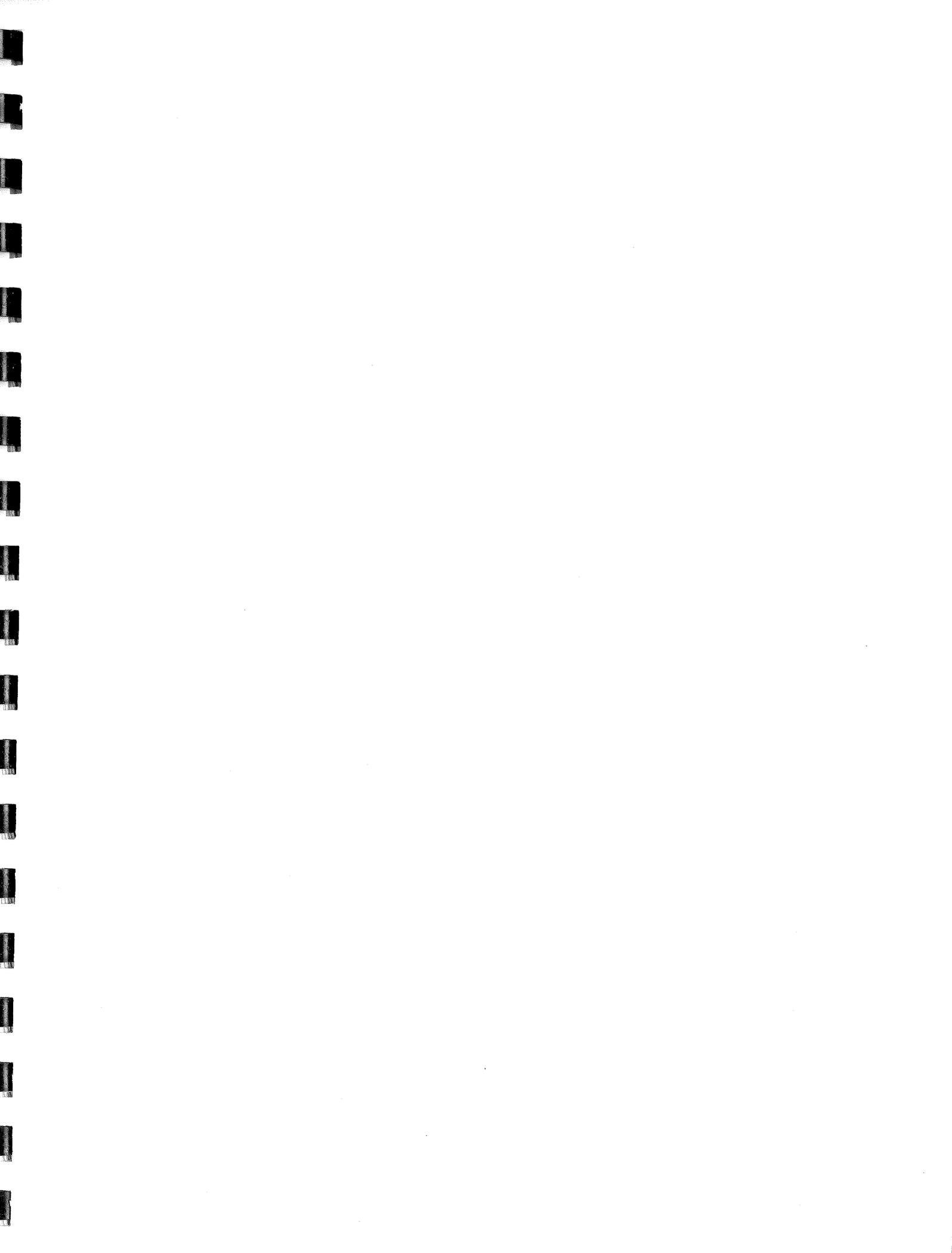




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	RAILROAD
	RIVER MILE

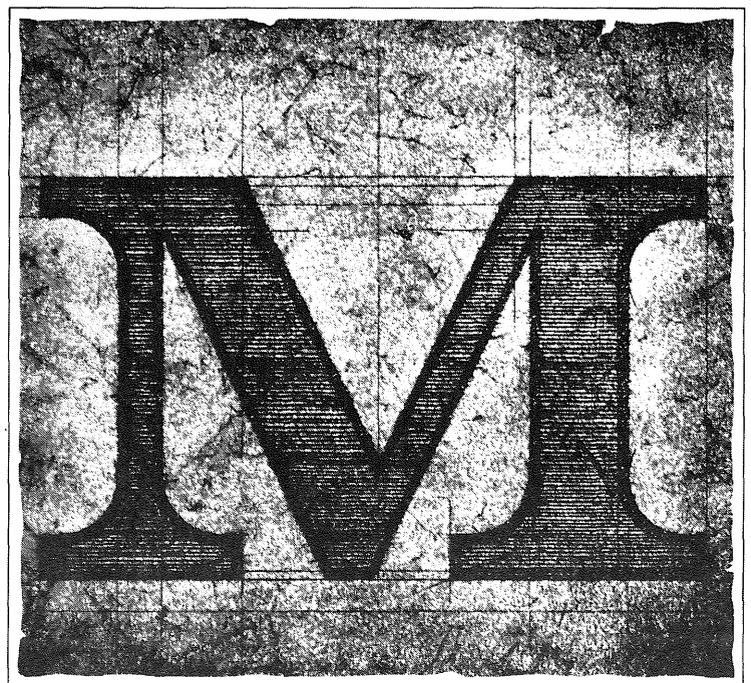
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	POWER LINE
	UTILITY CORRIDOR
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	PRIVATE FACILITY
	TRAIL
	ACCESS
	CAMPSITE
	HISTORIC SITE
	POINT OF INTEREST





ANALYSIS I

PHYSICAL CHARACTERISTICS



NATURAL AMENITIES

The words "Mississippi River" evokes the image of a great sluggish, dirty, debris-laden stream to many people. The portion of the river between St. Cloud and Anoka, however, does not fit this description. Here, the river is surprisingly clear. The bottom is gravelly and boulder-strewn. Rapids, though generally mild and not dangerous, are numerous.

By the time it reaches the beginning of the proposed management area, the Mississippi is already quite large, averaging about 400 feet in width. It does not meander greatly as it flows in a southeasterly course across the relatively flat plain between St. Cloud and Anoka.

Numerous islands dissect the river, creating channels and backwater areas. These islands are usually wooded and in some cases are being used for pasture. Often the islands occur in groups of a half-dozen or more. The Thousand Islands (or Beaver Islands) just below St. Cloud consist of over 30 individual islands and sand bars with a maze of inter-connected channels.

Snags and fallen trees do not pose the navigation problems often found on smaller rivers, except in the narrower channels around some of the islands. The river presents no serious boating hazards, although some rapids present difficulties during low water levels.

Several tributaries add their flow to the Mississippi within the management area. Major tributaries include the Clearwater, Elk, Crow, and Rum Rivers, in addition to Augusta and Silver Creeks. The area drained by this portion of the Mississippi and its tributaries is described in the "Watershed" portion of the management plan. The larger streams such as the Rum, Crow, and Elk, are historically significant as early waterways. They are also important for their scenic and recreational values.

From St. Cloud to Clearwater, the river retains a very natural appearance. Much of the shoreland is wooded or used for agricultural purposes. In some areas, the banks are quite high, limiting the sight lines to the immediate river corridor. In other portions, there are low wetland areas and low, nearly level agricultural lands. Residential or industrial development is negligible -- but growing -- in the 30 river miles between St. Cloud and Monticello. Clearwater is the only other municipality along this stretch, located directly on the river.

From Clearwater to Anoka, portions of the river are still quite natural in appearance. There is, however, a gradual increase in the evidence of man-made changes to the landscape. Particularly evident is the number of houses, many of which have been built only recently, that are located within sight of the river.

Vegetation along the river ranges from grasses and shrubs to mature stands of oak or lowland hardwoods. There are numerous areas where banks have eroded, in some cases creating sheer 50-100 foot embankments. In some areas, wooded slopes have been

cleared and seeded to lawns, and eroding banks have been stabilized by rock or concrete rip rap. Such areas still have recreational value, although much of their scenic amenities have been lost.

Wildlife is present, but not unusual in its abundance or variety. Fishing is excellent in some areas, with game fish present in good numbers in many portions of the river. The various natural resources, such as vegetation, soils and wildlife, are described in greater detail in their respective portions of the management plan.

The 55 miles of Mississippi River between St. Cloud and Anoka features a blending of scenic, historical and natural amenities. This portion of the river meets qualifications necessary for inclusion in the Minnesota Wild and Scenic River System.



Watershed

Lake Itasca is generally considered the source of the Mississippi River. From there the Mississippi River begins its 660-mile journey through Minnesota.

This management plan is only concerned with the 55 mile stretch of the river between St. Cloud and Anoka. At St. Cloud, the Mississippi River is 990 feet above sea level. It falls to 835 feet above sea level at Anoka, a drop of 155 feet. The average fall is three feet per mile. However, the river falls only 15 feet in its last 16 miles. There are only a few minor stretches of rapids on this portion of the river.

Water is collected above Anoka by drainage from 19,100 miles of land area. The 55-mile portion of the river, with its tributaries, drains about 3,700 square miles of land area.

Three primary tributaries contribute to this portion of Mississippi's flow: the Clearwater River which drains 173.8 square miles, the Elk River which drains 670 square miles and the Crow River, which drains 2,590 miles. Other tributaries draining into this portion of the Mississippi include St. Augusta Creek (Johnson Creek on U.S.G.S. quadrangles), Plum Creek, Bend Creek (Fish Creek on U.S.G.S. quadrangles), Silver Creek, Otter Creek, Creek at Otsego.

Source: U. S. Department of Agriculture Soil Conservation Service

MINNESOTA WATERSHED INVENTORY - St. Paul, Minnesota

Report of Water Resources Investigations of Minnesota 1909 - 1912
by the State Drainage Commission in cooperation with the United
States Geological Survey.

MISSISSIPPI RIVER WATERSHED (ST. CLOUD to ANOKA)



Geology

Much of the Mississippi River drainage basin from St. Cloud to Anoka is composed of rolling glacial terrain. A series of interrupted morainal hills border the western and southern edges of the basin.

The landscape can be described as gently rolling; however, the area west of the Mississippi is somewhat rougher than land to the east. Lakes and marshes are found on both sides of the river, but are more numerous to the west.

The land area which borders the river is the floodplain and valley train of the early post-glacial Mississippi River. This large glacial outwash plain, composed of sand and gravel is the predominate feature of the area. These outwash deposits also extend along the lower reaches of numerous tributary streams.

Two major types of bedrock underlie the region. To the north and west, Archean Granite lies at varying depths below the land surface. At various places, especially along the banks of streams, outcroppings of this bedrock can be found. To the south and east, St. Croix sandstone underlies the area. This sandstone is believed to be the northwest corner of the Twin Cities Artesian basin.

The ground water supply throughout most of the watershed is adequate. Adequate yields of water can be obtained from sand and gravel lenses or pockets in the glacial drift. The glacial outwash sands and gravels along stream valleys generally yield plentiful supplies of water at shallow depths. The most dependable aquifers are the outwash and the St. Croix sandstones in the southeastern part of the area.

Source: George Thiel - University of Minnesota - Minnesota Geological Survey -
The Geology and Underground Waters of Southern Minnesota Bulletin 31 -
The University of Minnesota Press, 1944
Department of Natural Resources - Division of Waters, Soils and Minerals

SOILS

Soils are a basic resource which make up an integral part of the total environment. Soils influence natural resources such as vegetation and wildlife. They also help to determine the uses man will make of the land. Soil information, therefore, is an important and useful tool in river planning. A generalized description of major soil types along the Mississippi River provides insight into the area's natural history and ecological balance.

Hubbard Series

The Hubbard soils are closely associated with the Mississippi River in most of the management area. These soils occupy a range of slopes from nearly level to very steep. They have a low moisture holding capacity, and are thus droughty and subject to wind erosion, especially when cultivated. Because of their rapid percolation rate, these soils may pose a pollution problem to underground water supplies if used for septic tank absorption fields or livestock feedlots. These soils are suitable for agricultural use if fertilizers and irrigation are employed.

Estherville

These soils are similar to the Hubbard soils because of their low natural fertility, low water holding capacity, and permeability. Surface runoff is medium and similar to the Hubbard soils.

There are a number of other soils which make up a smaller percentage of the total soil resource of the management area.

General Characteristics of Soils Adjacent to the River

In general, soils along the study portion constitute a sandy outwash plain extending from one to ten miles wide. The landscape is nearly level, and in some areas dissected by drainage ways or pitted with ice-block depressions left by glacial activity. Banks along the river are often steep and quite high. Bottom lands generally are wet, dissected by old channels, and subject to flooding. Natural drainage in low-lying areas is poor where the water table is at or near the surface.

Most of the soils are shallow or moderately deep. They are suitable for general agriculture, although drought and wind erosion can present problems. Some relatively small areas along the river are uncleared and support scrub oak, aspen, cedar, and a variety of lowland hardwood species. Many of these woodlot areas are used for pasture.

These soils are a good source of sand and gravel and many commercial gravel pits are located in the study area, some quite close to the river.

The only serious limitations for recreational purposes are the steep slopes in some areas, especially some of the bluffs along the river, and the pollution hazards for septic tank absorption fields.

Sources: U. S. Department of Agriculture Soil Surveys for:
Wright, Sherburne, and Hennepin counties;
Soil maps for Stearns and Anoka counties.



DESCRIPTION OF THE VEGETATION RESOURCE

Description of the vegetation along the study area will be presented in two sections: First, a general description of the original vegetation; and second, a more detailed description of existing vegetation and its characteristics.

ORIGINAL VEGETATION

Prior to settlement of this area its vegetation was characterized by three major types of plant communities. Boundaries between these different vegetation zones were not sharply defined, however. A general "picture" of the composition and geographical extent of the original vegetation can, nevertheless, be reconstructed from first-hand accounts of early explorers and settlers, examination of various soil types, and to a certain extent the characteristics of the existing vegetation.

Immediately adjacent to the river were the bottomland forests and brushlands. Willows and cottonwoods predominated in those areas most susceptible to overflow or flooding.

Common species on slightly higher ground most likely included American elm, silver maple, green ash, box elder, and hackberry. Understory consisted of such shrubs as prickly ash and various species of the genus Ribes (currants and gooseberries). Also common were woody vines such as wild grape and Virginia creeper. Such vines have been known to grow to great size on these slightly higher lands subject to less frequent flooding.

Except for red cedar and juniper on some of the higher land, such as the bluff slopes, conifers were generally rare. There were, however, some isolated occurrences of white pine, though these were probably on the slopes or bluff tops. Zebulan Pike, one of the early explorers of the Upper Mississippi Valley, noted the occasional occurrence of white pine in the area.

Another major vegetation type which originally paralleled portions of the river was pure deciduous forest. Known to early pioneers as the "Big Woods" (taken from the early French name, Grand Bois), it was roughly defined by a line running from Faribault north past Minneapolis and along the Mississippi to St. Cloud on the east; then south to Mankato; and from Mankato easterly to Faribault.

This heavy forest was not continuous along the river, however. Generally, it was located some distance back from the river, but approached the river edge at certain points. A report by the U.S. Army Corps of Engineers in 1873 describing the river between Minneapolis and St. Cloud stated that the ... "Big Woods" come to within a short distance of the river at different points and will furnish a large amount of fuel".

In addition to providing fuel and building materials for early settlers, the Big Woods occupied an area of fertile soils. This fact was not lost by the settlers who soon began clearing the woods and establishing farms.

Most important tree species in the Big Woods were sugar maple, basswood, American and red elms, and red oak. Bur oaks were present, but relatively rare. The only conifers were red cedars along the river bank and possibly some tamarac in adjacent swamps. The more common shrubs included dogwoods, sumacs, and hawthorne.

The third original vegetation type along the Mississippi River included prairie groves and open prairies. The prairie groves were in a sense extensions of the heavy forests, though they contained fewer species and were more open in appearance. Bur oaks were prevalent along the fringes of these groves. These oaks were the pioneer trees which reached into the adjacent prairie as small trees or dwarf shrubs.

The real prairie consisted of a wide variety of grasses and herbaceous plants, and of small shrubs such as prairie wild rose, wolfberry, and lead-plant. Prairie areas along the Mississippi were quite small in relation to the surrounding forests and were isolated from the main prairie areas to the west by the intervening Big Woods. They are noteworthy because of their location within an area of heavy woods, and many of them were given names by the early settlers. In Wright County, for example, were Clearwater Prairie, located eastward from the Clearwater River and nearly adjacent to the Mississippi; Monticello Prairie,

located near the river and one to two miles southwest of the Town of Monticello (the first settlement in Wright County); and several other small prairies. Adjacent to the Mississippi throughout Sherburne County were several unnamed areas of true prairie or prairie groves. Most of these are now being utilized for farms.

The true prairie and prairie grove areas are considered as one major vegetation zone in this study, although the prairie groves were often really transition zones between open prairie and heavily-forested areas.

In describing the Mississippi River Valley from the mouth of the Rum River to what he called the Leaf River (Elk River), Pike offered an interesting picture of the original vegetation. He wrote: "...the prairies continue with few interruptions. The timber is scrub oak with now and then a lonely pine". It is quite possible that, if alive today, Pike would find many areas along the river little changed from when he first viewed them in 1805.

EXISTING VEGETATION

One of the major assets of the Mississippi River Valley between St. Cloud and Anoka is the quality and extent of the adjacent natural vegetation. In many areas wooded tracts seem interminable. As mentioned previously, much of the vegetation seems relatively unchanged from years past.

Of the three major vegetation types present at the beginning of the 19th century, the bottom-land forests remain most intact. These areas have seen less pressure for use as farm land or building sites, although pasturing has occurred in some cases. In these pasture areas, some new species of grasses and shrubs have become established.

The more common bottom-land tree species are willow, cottonwood, American elm, green ash, box elder, and silver maple. Understory species include red osier dogwood, prickly ash, currants and gooseberries, and vines such as wild grape. Most of the islands have this type of vegetation cover. Other areas with bottom-land vegetation are low areas near the mouths of tributary rivers and streams, backwater sloughs, and alluvial deposits on flood plains which may be covered by high waters.

Relatively small remnants of the original Big Woods remain. In most cases they occur in scattered small tracts on the bluff tops or beyond. Often these woods have been used for pasture or have been depleted because of their attractiveness to developers.

Along some of the high, steep banks, a common mixture of tree species is found including birch, red cedar, oaks, miscellaneous hardwoods, and even an occasional white pine. These areas are particularly scenic and, because of their topography, are not ideal for either farming or residential development. These bluff faces are, of course, very visible and may offer ideal opportunity for scenic easement acquisition.

Most of the larger tracts of woods located beyond the bluff line are found between St. Cloud and Monticello. Some of these woods occupy 40 acres or more.

The prairie groves, consisting largely of scrub oak savannah intermixed with small prairie openings, are quite evident. Principle tree species is burr oak. Outwash plains on which these groves occur are often droughty and low in plant nutrients. Consequently, the trees may appear stunted and are spaced relatively far apart.

These oak groves are quite common and are scattered along the entire river. They appear to comprise a comparatively larger percentage of the vegetation from Monticello to Anoka, however.

Of the original vegetation types, the true open prairie seems to have been depleted most. The prairies were quickly turned into farm fields by the early settlers. Although patches of open prairie can be found beyond the bluff line, its real stronghold is along some of the steep bluff faces. Grasses predominate along with a scattering of herbaceous prairie plants and low shrubs. Red cedar and dwarf juniper may be scattered throughout these open areas.

In addition to the natural vegetation, there has been some planting of plant species not native to the study area. This has primarily occurred at the towns or outlying residential districts. Spruces, pines, and ornamental shrubs are common in these areas.

DISTRIBUTION OF THE VEGETATION RESOURCE

To provide a better picture of the extent of the existing vegetation resource, an aerial photo analysis was completed. Using high quality aerial photos, an estimate was made of the percentage of the immediate shoreline which was found to be wooded. The entire shoreline within 50 to 100 feet of the river was inventoried.

It was found that along the river segment from St. Cloud to Monticello, about 76 percent of the eastern shoreline is wooded and 74 percent of the western shoreline. In the portion from Monticello to Anoka, about 68 percent of the eastern shoreline is wooded with about 66 percent of the western. This difference between the upper and lower portions reflects the greater degree of shoreline development and land clearing from Monticello to Anoka. In total, about 71 percent of the shoreline in the study area is wooded.

The analysis did not include the numerous islands, many of which are heavily wooded. These islands add greatly to the scenic beauty of the river, and preservation of their vegetative cover will insure their value to wildlife and recreation.

THREATS TO THE VEGETATION RESOURCE

One of the first outbreaks of Dutch Elm disease in Minnesota was in the vicinity of Monticello. Since that time, the disease has spread to many parts of the state. It is probable that a large percentage of the elms along the Mississippi will eventually succumb to the disease. It is difficult, however, to predict the impact the disease will have on the total vegetation resource.

Another problem may lie in a disease called oak wilt, which usually attacks clusters of oak trees and may kill several at a time. It may be particularly damaging in areas with a high density of oaks, such as are quite common along the study area. Control of this disease, should it become a major problem, will be essential to maintaining scenic values.

The most immediate threat to vegetation stems from increasing development of the shoreline for residential housing. Often, the choice locations for such developments occur within wooded parcels. Any developments in these areas should be planned with a sensitivity toward this precious resource.

The provisions contained in this management plan, as well as in the State Rules and Regulations for the Wild, Scenic, and Recreational Rivers System, will help to insure that natural vegetation, along with other resources of the river, will be protected for present and future generations.

Sources: Trees and Shrubs of Minnesota
Sherburne County Soil Survey
Wright County Soil Survey
The Expeditions of Zebulon Montgomery Pike
Mississippi River Aerial Photography
Minnesota Geographic Names

FISHERIES

The Department of Natural Resources, Division of Fish and Wildlife, has completed an electro-fishing study for this portion of the Mississippi River. This study, although not a complete analysis because of the technological deficiencies of electro-fishing, is capable of providing excellent insight as to those species in the river.

Typically, rough and forage species such as carp, redhorse and bullheads make up a large percentage of the fish present, however, it is significant that smallmouth bass make up 26 percent of the total fish population.

Game fish species taken most often were the smallmouth bass, black crappie and walleye. The Mississippi River between St. Cloud and Anoka is particularly noteworthy for its smallmouth bass fishing. Large muskies, many in excess of 30 pounds, have been taken from this stretch of river.

Most of the fishing is by area residents. Tourist fishing in the area is largely confined to lakes because of a lack of accessibility and lack of boat liveries along the river.

This is a partial list of the fish species taken by the electro-fishing process:

GAME FISH

Smallmouth Bass
Walleye
Channel Catfish
Black Crappie
White Crappie

Bluegill
Northern Pike
Largemouth Bass
Pumpkinseed
Rock Bass

ROUGH FISH

Carp
Northern Redhorse
Silver Redhorse
White Sucker
Burbot

Bowfin or Dogfish
Yellow Perch
Black Bullhead
Yellow Bullhead

Many species of minnows or minnow-like fish were also taken by the electro-fishing process.

In 1974, the Department of Natural Resources stocked three species of fish in this portion of the river. The species were Walleye, Muskie and the Channel Catfish.

An interesting phenomenon exists which effects the fisheries in the river. For centuries, St. Anthony Falls in Minneapolis was an effective barrier to fish migration. Certain species of fish which existed below the falls were absent from the waters above. Locks have now been constructed around the falls enabling fish to move upstream. They can move only a short distance however because a man-made structure, the Coon Rapids Dam, now blocks their path.

Fisheries on this portion of the Mississippi River are such that they are capable of providing many man-hours of quality fishing experience to the sport angler.

Sources: Minnesota Department of Natural Resources - Division of Fish and Wildlife - 1974 Electro-Fishing Study.

Minnesota Department of Conservation - Division of Game and Fish - A Biological Survey of the Upper Mississippi River System, Fisheries Research Investigational Report No. 10, John B. Moyle, Ph.D., June 1, 1940.

WILDLIFE

Wildlife is an important consideration in the management of any area. Generally, the species and numbers of wildlife in an area is inversely proportional to man's presence. This phenomenon is clearly visible along that portion of the Mississippi included in this management plan. Certain species of animals which once inhabited the area are now absent or greatly reduced in number.

Zebulon Pike, the famous explorer who traveled the river in 1805, wrote: "The elk begin to be very plenty; there are also some buffalo, quantities of deer, raccoons, and a few of the animals called by the French brelaws." (Actual French blaireaux, or in English, badger.) Of the animals Pike listed, elk and buffalo are absent from the area and few badgers exist. Other examples of animals which were once present but are now absent or reduced in number include the extinct passenger pigeon, black bear, timber wolf, and beaver. Man's activities are largely responsible for their demise.

At present, many species of wildlife are dependent on this stretch of the river. This section of the Mississippi is within the Mississippi Flyway, one of the major waterfowl migration routes on the continent. This flyway is used by numerous species and countless numbers of waterfowl during fall and spring migrations.

Various species of waterfowl also nest and breed along the river, including mallards, wood ducks and bluewing teal.

Other wetland birds which make their summer home along the river include, the great blue heron, black-crowned night heron, blackbirds, marsh wrens, various species of bitterns and numerous types of shorebirds. (Northern Bald Eagles and the osprey or fish hawk have been observed during migratory flights.) Many species of song birds as well as hawks and owls also nest near the river.

Mammals, associated with the aquatic environment include beaver, muskrat, otter, mink and raccoon.

Other species common along the river are white-tailed deer, three species of squirrels (red, grey and fox), woodchucks, skinks, red and grey fox, and Jack and cottontail rabbits. Smaller animals include the chipmunk, the 13-lined ground squirrel, weasels, bats, pocket gophers, and numerous species of mice, moles and shrews.

Major game species are the white-tailed deer, various species of waterfowl, grouse, pheasants, rabbits and squirrels. Human influence is well marked, but numerous species and significant numbers of wildlife still remain. One purpose of the Minnesota Wild and Scenic Rivers Act is stated as "maintaining the status quo." Carrying out this purpose may be vital for future protection of this wildlife resource.

Source: The Expeditions of Zebulon Montgomery Pike - Zebulon Pike Diary

The Mammals of Minnesota - Harvey L. Gunderson and James L. Beer,
the U of M Press, Minneapolis, 1953.

The Department of Natural Resources - Division of Fish and Game.



WATER QUALITY

The Minnesota Pollution Control Agency (M.P.C.A.) has a classification system for rivers within the state. This system establishes the water quality standards which should be maintained within various sections of these rivers.

Minnesota Pollution Control Agency classifications for the section of the Mississippi River lying between St. Cloud and Anoka are 1C, 2B, and 3B. 1C refers to consumption and the treatments and standards for consumption, 2B refers to standards for fisheries and recreation, and 3B to the standards for industrial consumption.

This management plan is concerned basically with the 2B classification for fisheries and recreation which states: "The quality of this class of the interstate waters of the state shall be such as to permit the propagation and maintenance of cool or warm water sport or commercial fishing and be suitable for aquatic recreation of all kinds, including bathing for which the waters may be usable."

The Pollution Control Agency has an on-going program to monitor the water quality of the river. Water samples are taken at various points along the river. These samples are then analyzed and the results recorded.

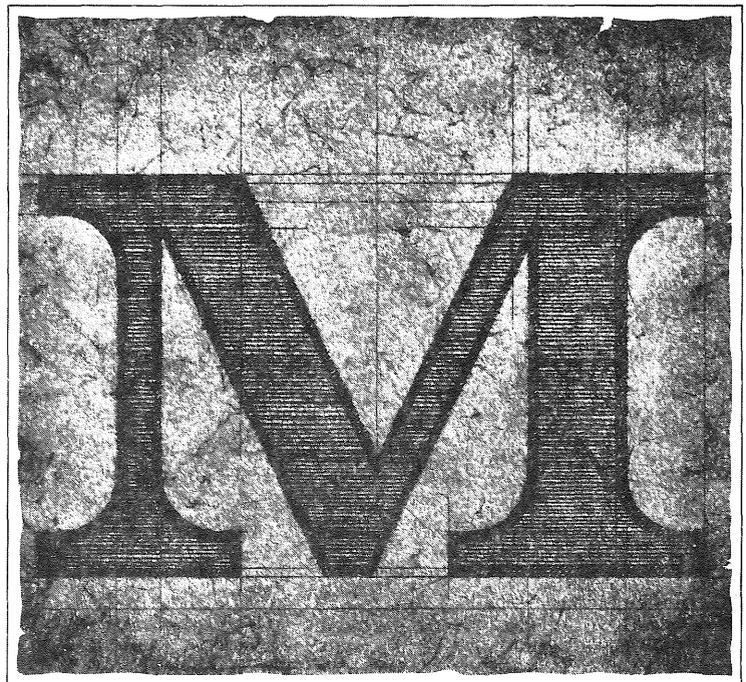
Analysis of this recorded data shows that certain samples fall within acceptable M.P.C.A. standards for the 2B classification for fisheries and recreation while others fall outside the acceptable range. With proper action, the nature of the river is such that water quality conditions could be improved.

Sources: The Minnesota Pollution Control Agency

The Minnesota Pollution Control Agency - Minnesota State Regulations - Rules, Regulations, Classifications and Water Standards, 1973
supplement WPC 15, Documents Section, Department of Administration
Room 140, Centennial Building, St. Paul, Minnesota 55155

ANALYSIS II

SOCIAL CHARACTERISTICS



HISTORY

An exhaustive historical account is neither practical nor necessary for the purposes of this management plan. It is important, however, to provide some insight into the characteristics and events of the river's past to better understand the present.

The First Inhabitants

Long before the white man began to explore the Upper Mississippi Valley and its adjacent prairies and forests, the aboriginal inhabitants of the area had recognized the river's importance. Its name in Ojibway translates, appropriately, as "great river" or "gathering of all the waters." Perhaps because of its great importance in the network of river transportation routes, the Mississippi was an area of almost constant movement and conflict among numerous important Indian nations.

The Cheyenne Indians occupied much of the area when the very first white explorers and fur traders began to infiltrate the Upper Mississippi. The Cheyenne, related to other woodland tribes to the east, engaged in agriculture and lived in relatively permanent-type dwellings. The first mention of this tribe was in 1673, at which time they occupied parts of western Wisconsin and areas adjacent to and west of the Mississippi. Soon after, however, pressure from the powerful Dakota Sioux and Ojibway (Chippewa) forced them toward the west. By the early 1800's the Cheyenne were found in the area of the Black Hills and had changed from farmers to nomadic buffalo hunters.

The Dakota Sioux were the next nation to occupy the region of the Mississippi near the study area. The Dakota were the most powerful and numerous of all the tribes of North-central America. At this time, they were still a woodland people, quite unlike the later generations who eventually gained supremacy over much of the Northern Great Plains.

In 1805, Zebulon Pike described the various sub-groups of the Dakota, several of which ordinarily hunted along the Mississippi. The Dakota also carried on a limited form of agriculture, growing tobacco and corn. By the time of Pike's exploration, the Mississippi River within the study area had become a region of border conflict between the Dakota and the Ojibway. Though the Dakota were more numerous than the Ojibway, the latter had two major advantages: they were familiar with their home territory laced with rivers, streams, lakes and bogs and they had guns supplied by the French traders.

Pike made note of some battles which were fought within the study area. These battles will be described in more detail later in this section. Gradually, after many years of warfare with the Ojibway and pressure from white settlers, the Dakota moved to the northern plains to pursue the buffalo.

The Ojibway also hunted along the Mississippi and used the river for transportation. They probably did not frequent this portion of the river as often as the more northerly stretches, however, because of its proximity to some Dakota villages.

The Winnebago tribe, moved from their home in Wisconsin by the U.S. Government, were located for a short time on the Mississippi near Anoka. They were later moved again, however, when the area became desirable for settlement by white pioneers.

The Early Explorers

In the 17th century, the lure of beaver and other fur-bearers began to attract trappers and traders to the Upper Mississippi River. Some of these early traders undoubtedly entered the area, though their travels have gone unrecorded.

One of the first white explorers of the river whose travels were recorded was Father Louis Hennepin. Hennepin and two companions were captured by the Dakota at Lake Pepin in 1680 and taken to one of their villages at Mille Lacs Lake. He was taken up the Mississippi to the Rum River (which he named St. Francis), and along this river to the lake. He was later released and published an account of his adventures in 1683.

In November, 1767, Jonathan Carver explored the Mississippi as far upstream as the Elk River (which he mistakenly called St. Francis River) and also noted the Rum River. Carver was perhaps the first to use the present spelling of "Mississippi". Before this spelling became generally established through use by later explorers, the name had had many variations, perhaps numbering 30 or more. Carver was impressed by the surrounding country and gave particular notice to the abundance of wildlife.

The beginning of the 19th century saw further emergence of the Upper Mississippi region as a defineable area of the world. Over the years, the traders and explorers had gradually developed a better knowledge of the area's geography. Unfortunately, many of early conceptions were incorrect and there were still many "blank spots" on the maps.

With the purchase of the vast Louisiana Territory in 1803, the United States Government, and President Jefferson in particular, realized the necessity of determining the true geography of "the then unknown wilds of our western country." With this aim in mind, the Lewis and Clark expedition set out for the Upper Missouri and the northwest while Lieutenant Zebulon Pike, a young soldier still in his twenties, was sent on a military mission to explore the Upper Mississippi.

Pike and his small detachment of men left St. Louis on August 9, 1805, and arrived at St. Anthony Falls in late September. Though he realized his mistake in starting so late in the season, he nevertheless determined to continue his journey up the river. Employing a light barge (which could be carried by eight men), he advanced upstream to the vicinity of present-day Anoka, hampered by shoals and rapids throughout most of this stretch. After spending the night of October 3 camped near Dayton Rapids, he set out the next morning in weather that was "...extremely raw and cold."

At the mouth of the Crow River, and for some distance upstream, he found evidence of a battle between the Dakota and Ojibway. Eight Dakota canoes were found "...cut to pieces with tomahawks, and the paddles broken on shore ... marked with the Indian sign of men and women killed". He concluded that a

party of Dakota had been attacked and that all had been killed or taken prisoner by the Ojibway.

Continuing upstream Pike passed the mouth of the Elk River (which he called Leaf River) and camped in the vicinity of Spring Rapids and Dimicks Island, about halfway between the Elk River and the future site of Monticello.

On October 5, he encountered some more difficult water, crossing Spring and Battle Rapids. The latter were named in recognition of a battle between the Dakota and Ojibway which Pike said took place in the year 1800. He found evidence of this battle, including several fortified Dakota encampments and some litters used to carry sick or wounded. That night his party camped in the vicinity of present-day Monticello.

On October 6, he advanced past Otter Creek and Cedar Rapids to a point about one-third of the way between Monticello and the Clearwater River. The next day was spent hunting elk and grouse and drying the provisions. The party made good progress on the 8th, moving past Silver and Fish (or Bend) Creeks to camp near the mouth of the Clearwater River.

On October 9, they advanced through country which Pike described as "barrens and prairie" to a point somewhere between Plum and St. Augusta Creeks. The next day they passed the camp of two fur traders who had wintered on or near Grand Isle (Big Island) in 1797 and made their way through "...a cluster of more than 20 islands in the course of four miles..." Pike called these the Beaver Islands because of the numerous dams which these animals had constructed between them. They are now known also as the Thousand Islands. That night the party camped at the foot of the Grand (or Sauk) Rapids.

Thus, in the course of eight days, Pike and his men had traveled upstream a distance of about 55 miles - a trip which would take about one hour by automobile today. This illustrates the difficulty of travel at the time, especially when moving upstream against the current and in relatively low water conditions. By comparison his return trip downstream in April of 1806, just after the spring breakup, was completed in only about two days.

Though Pike did not succeed in discovering the true source of the Mississippi, he did substantially increase knowledge of the geology, wildlife, people, and general characteristics of the region.

During the first half of the 19th century, the popular conception of western North America was one of romantic idealism. Modest hills and bluffs were exaggerated to "mountains", ripples became "violent rapids", etc. One of the early explorers of the Upper Mississippi, J.C. Beltrami, contributed to these popular notions in a travel book entitled "A Pilgrimage in America."

Beltrami, a well-educated aristocrat, traveled through the study portion of the Mississippi in late September, 1823. He was returning from a journey to the north during which he thought he had discovered the source of the Mississippi. (He had actually discovered Lake Julie in Beltrami County rather the true source at Lake Itasca).

The sight of the Thousand Islands greatly impressed him and he was moved to describe them in rather exaggerated terms as an Archipelago:

"It is wonderful to observe how this river combines all the features of grandeur and beauty, all that can affect and astonish. It comprises at this spot, within a specious and enchanting enclosure, fifteen islands, rivalling each other in elegance and charms. Nature seems to repose with pleasure in the view of them, and to be proud of her work..."

After negotiating some rapids downstream from these islands (possibly Mosquito Rapids) -- which he described as "violent" -- he continued downstream to a spot which, according to Beltrami, was called by the Indians Anikitoucian, or Great Echo. According to his description, this spot may have been near a bend in the river at the mouth of Plum Creek. He also noted the Clearwater River (Kawanibio-sibi in Ojibway) which he said certainly deserved its name.

On passing the mouth of the Crow River, he remarked that the Ojibway Indians referred to it as the Sioux River because "...it has been often dyed with the blood of battles." At this spot he attempted to shoot a bear out of an oak tree, but failed because his gunpowder had been dampened by rain. As he wrote later, he was disappointed because "I should have felt as if I had performed an extraordinary achievement, had I killed a bear perched on a tree like a bird."

Though exaggerated and romanitized in some respects, Beltrami's account is still significant because of its valuable observations.

The age of exploration on the Upper Mississippi was essentially completed in 1832 with the discovery of Lake Itasca by Henry Schoolcraft. Schoolcraft and his party had set out to firmly establish the true source of the river and to bring peace between the Indian tribes. After reaching Lake Itasca on July 13, they journeyed downstream passing through the present study area.

In the narrative of the trip, this portion of the river was described as "...delightful in the extreme." The existence of large, beautiful prairies was particularly noted and the general appearance of the area was described as being park-like. Some wildlife, such as deer, ducks, and red squirrels were seen, but Schoolcraft noted that the buffalo, which still roamed the study area in 1820, had now vanished.

Riding the steady five to six mile per hour current, the party was able to traverse the study area portion in less than two days. This was enough time, however, to impress the travelers and to move Schoolcraft to say:

"It is difficult in passing it, to resist the idea, that it will, at some future day, sustain a dense population."

Early Commerce

The first resource to attract the white man to the Upper Mississippi River

was the abundance of furbearers, particularly the beaver. Fur trade posts were established at various points including several along the study portion.

Pike mentioned a post that had been used as a winter base in 1797 and was still being used in 1806. This post was probably at the foot of Big Island, about four miles downstream from the present dam at St. Cloud. In later years, a fur post was established at the old village of Itasca, opposite present day Dayton, and another at the site of Anoka in 1844. In 1848, Pierre Bottineau, an early settler, established an Indian trading post near the mouth of the Elk River.

By the middle of the 19th century, the fur trade began to diminish rapidly and the lumber industry became dominant, particularly from the 1840's to 1870's. Vast areas of white pine and hardwoods from surrounding regions and further north of St. Cloud were logged and either floated downstream or processed at numerous sawmills once located on the river. Principle sawmills within the study area were at St. Cloud, Anoka, Clearwater, Elk River, and Champlin.

The following table gives an indication of the size and importance of this industry in 1874:

Logs Scaled by the Surveyor General for the Second District, Minnesota
in 1874

<u>Sawmills</u>	<u>Board Feet</u>
Anoka	3,420,930
Champlin	258,670
Elk River	288,760
Clearwater	910,800
St. Cloud	80,450

Estimated Logs Sawed, but not Scaled

<u>Sawmills</u>	<u>Board Feet</u>
Anoka	20,860,000
Elk River	1,625,000
St. Cloud & above	2,500,000

Grand Total Manufactured 29,943,610 board feet

In addition to these sawmills, there were several flour mills in operation before or during the 1880's. These included mills near the mouths of St. Augusta and Otter Creeks, Clearwater, Elk, Crow and Rum Rivers, and at the Sauk Rapids near St. Cloud.

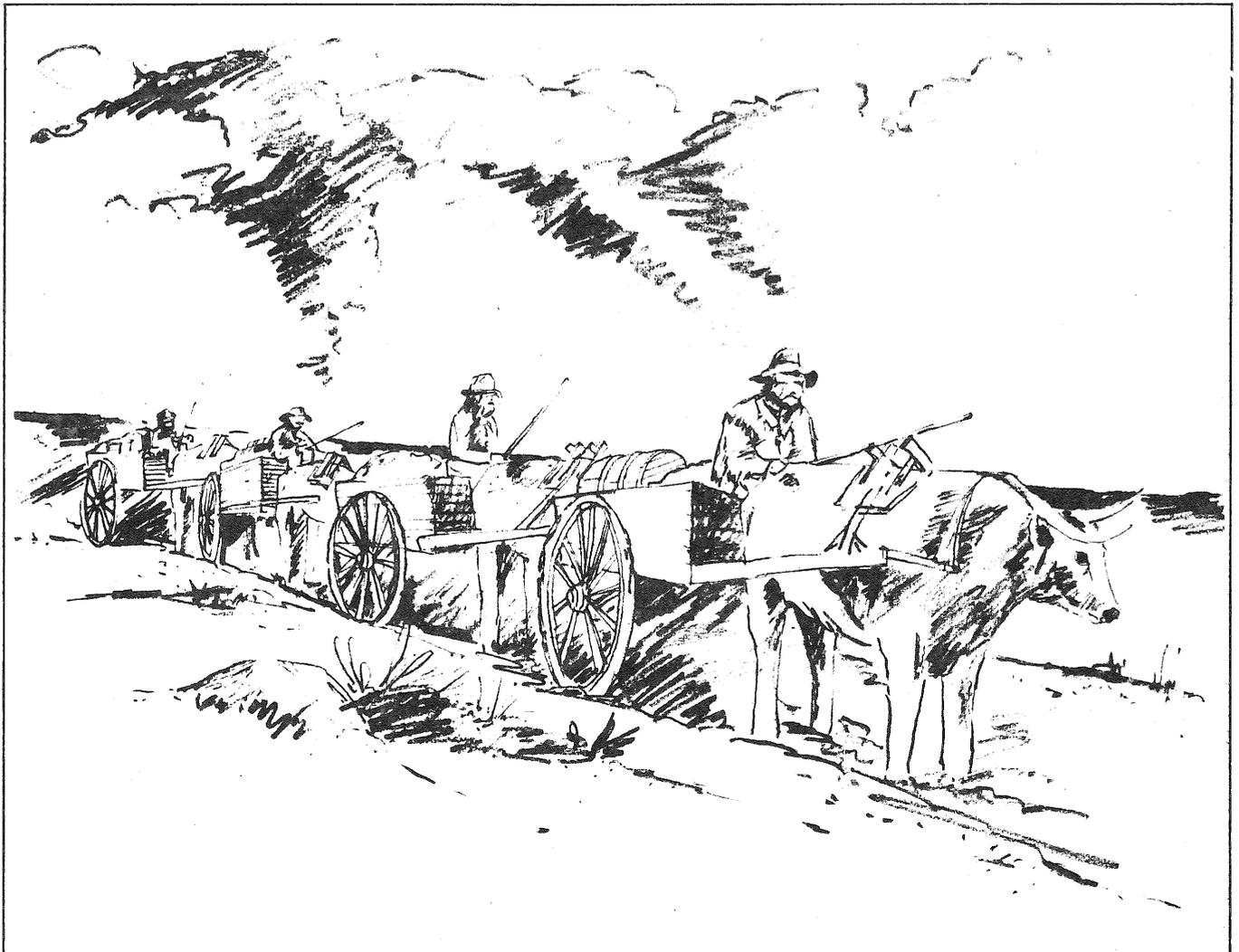
Settlement

While these early industries were being established, the area was gradually

becoming settled and agriculture soon became the dominant land use. Many towns grew up along the Mississippi which served as a transportation route for the movement of people and goods.

The famous Red River ox-cart trail paralleled the river on the east from St. Paul to Sauk Rapids and then proceeded on to the settlements at Pembina or Winnipeg on the Red River of the North. This was not one single trail, but rather a route of travel. The particular trail varied depending on availability of grass for pasturing stock, avoidance of Indians, and location of the shallowest fordes across the river.

In the 1850's, 500 to 600 carts travelled this route every year. Traces of this trail can still be seen at the highway wayside park off Highway 10, about five miles north of Anoka. The trail later evolved into a territorial/governmental road between St. Paul and Fort Ripley, completed in 1855. The present U.S. Highway 10 roughly parallels the route of this earlier road.



The river itself was also used for transportation. In about 1850, regular steamboat trips began between St. Cloud and St. Anthony Falls. These boats carried passengers and freight upstream and wheat downstream until the 1860's when drought, construction of a dam at Sauk Rapids, and completion of a railroad line between St. Paul and St. Cloud virtually eliminated their usefulness.

The numerous rapids and shoals in the river had usually provided difficulties for steamboats anyway. Between 1875 and 1879, the U.S. Corps of Engineers did construct some small bush dams and dredged out boulders and gravel at some obstacles such as Battle Rapids, Cedar Island Rapids, and Rocky Point at the Thousand Islands. Even with this, travel was still difficult, and though one small boat made frequent trips during this time, efforts to maintain navigation ended in 1879.

Development of agriculture was an important factor in the history of the area. Schoolcraft noted the existence of arable, though light, soil adjacent to the river and the ease by which "...the plough might be set in motion..." because of the large prairies which bordered the river in several areas. The passing years proved Schoolcraft's predictions to be correct.

In 1872, for example, the counties within the study area led the state in production of rye. Other important crops were beans and potatoes. Although a large percentage of the lands adjacent to the Mississippi came under agricultural use, large areas immediately bordering the river were preserved in woodlands. In a sense, these areas immediately bordering the river were preserved in woodlands. In a sense, these areas owe their continued existence to the presence of agriculture. Except for some pasturing, many of these areas were simply not suitable for agriculture and, fortunately for all, they have been preserved by the landowners. Today, many of these woodlands and other lands within agricultural areas are being threatened by pressure from residential development.

One of the first to homestead along this portion of the river was Oliver H. Kelley. In 1850, Kelley staked a claim to some land at the townsite of Itasca, between Elk River and Anoka. Kelley developed many innovative methods and concepts in agriculture, and was the founder of the National Grange of the Patrons of Husbandry. The purpose of this organization was to promote education, share information related to agriculture, and work for better conditions for farmers.

The 190-acre farm was donated by the National Grange to the Minnesota Historical Society in 1961. In addition to the Kelley home, many early farm implements and furnishings are preserved. The Kelley farm is located off U.S. No. 169, 10, and 52 and is open to the public from May through October.

As farming became established, existing and new settlements grew. The railroad line which was developed on the east side of the river became important for the movement of people, goods, and farm commodities. Though a few of the early settlements are nearly gone or have actually disappeared, the majority of these towns and cities are thriving today. The following are

some brief descriptions of the origins of the towns along or near the river:

Sherburne County

Big Lake: This town was originally called Humboldt. It was the county seat until 1867 when the name was also changed. It was named after the nearby lake which was a favorite place for picnics.

Clear Lake: This town started as a railway village. It was founded in 1867 and platted in 1879. It was named after a lake about two miles west of town.

Elk River: The first settlement in this area was in 1848 when Pierre Bottineau established an Indian trading post near the mouth of the Elk River. This river was called the St. Francis River by early explorers. The Indians referred to it as the "double river" because of its parallel course with the Mississippi. Early explorers observed elk herds on the river and, consequently, the first map of the Minnesota Territory in 1850 gave it its present name. An original village called Orono was platted in 1855. Elk River was platted in 1865, and the two villages were combined and given the latter name in 1881.

Stearns County

St. Cloud: The county seat of Stearns County was first settled in 1851, and platted in 1854. It was incorporated as a city in 1868. The city extends across the river into Benton and Sherburne Counties as well. This city is famous for its granite quarries, some of which are in operation today.

Wright County

Clearwater: The town of Clearwater was platted in 1856. It is named for the river which flows into the Mississippi just north of town. An important ferry crossing was located on the Mississippi at this town.

Monticello: This town was platted in 1854. It is named after the "little mountain", a hill about two miles from town towards the southeast, which was in turn named after the home of Thomas Jefferson in Virginia.

Otsego: Settled in the 1850's, this village contains some historically significant buildings. Its name is an Indian word meaning "welcome water" or "place where meetings are held".

Anoka County

Anoka: The first house in what was to become Anoka was built in 1844, by William Belanger, a fur trader, on the east bank of the Mississippi near the mouth of the Rum River. The town was founded in 1853. An early Indian trading post was located about two miles above the mouth of the Rum River on Big Island.

Itasca: Now a ghost town, this settlement had the first post office in Anoka County. It was located about six miles up the Mississippi River from the mouth of the Rum River. It was begun in 1849, for use as a trading post for a Winnebago Indian camp about a half-mile down the river. The Indians were relocated by the United States Government in 1856. Before this, the town had prospered and it was proposed as the site for the State Capitol. It began to fade after the Indians left, however, and was virtually abandoned by 1880. A nearby lake still retains the name of this early village.

Hennepin County

Dayton: Excavations at the mouth of the Crow River have unearthed evidences of a French fur post opened near the present location of Dayton in 1849. Evidence indicates that perhaps forty or more buildings once stood here at the mouth of the Crow River. The present town of Dayton was platted in 1855.

Conclusion:

This discussion of the history of the Mississippi River Valley from St. Cloud to Anoka has touched on only some of the major factors and points of interest important to the development of this region. To elaborate on the countless other historical aspects is not feasible within the scope of this management plan. It is clear, however, that this portion of the river holds a significant position in the history of Minnesota and that historical matters will be important in the preservation and management of the river.

Sources:

A Pilgrimage in America; J. C. Beltrami

Development of the Minnesota Road System; Larson

Expedition to Lake Itasca; The Discovery of the Source of the Mississippi; Henry Schoolcraft

Expeditions of Zebulon Montgomery Pike; Pike (Edited by Elliot Coues).

Indian Tribes of the Upper Mississippi and Great Lakes Region; E. H. Blair

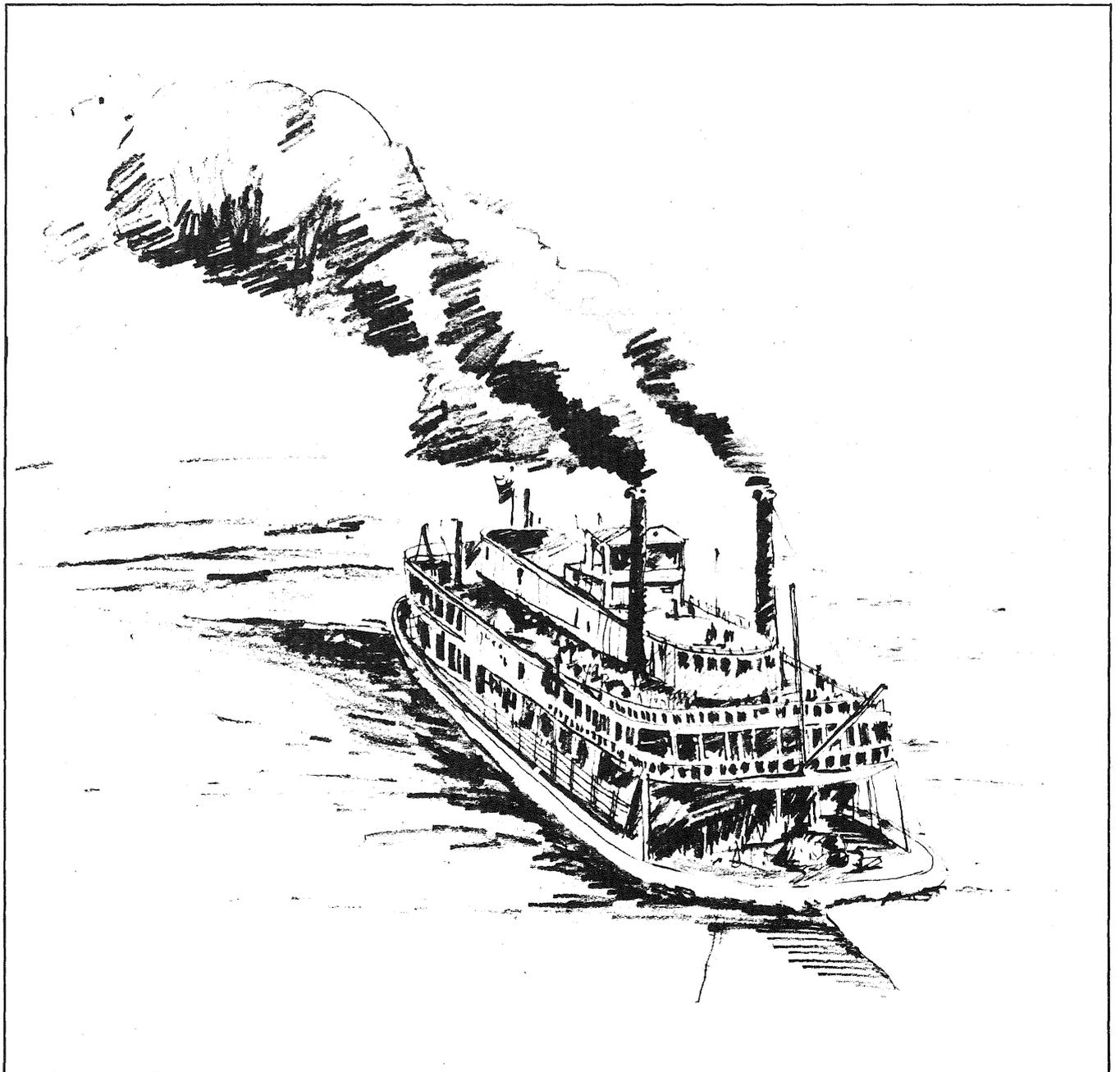
Indians of the Plains; Harry L. Shapiro

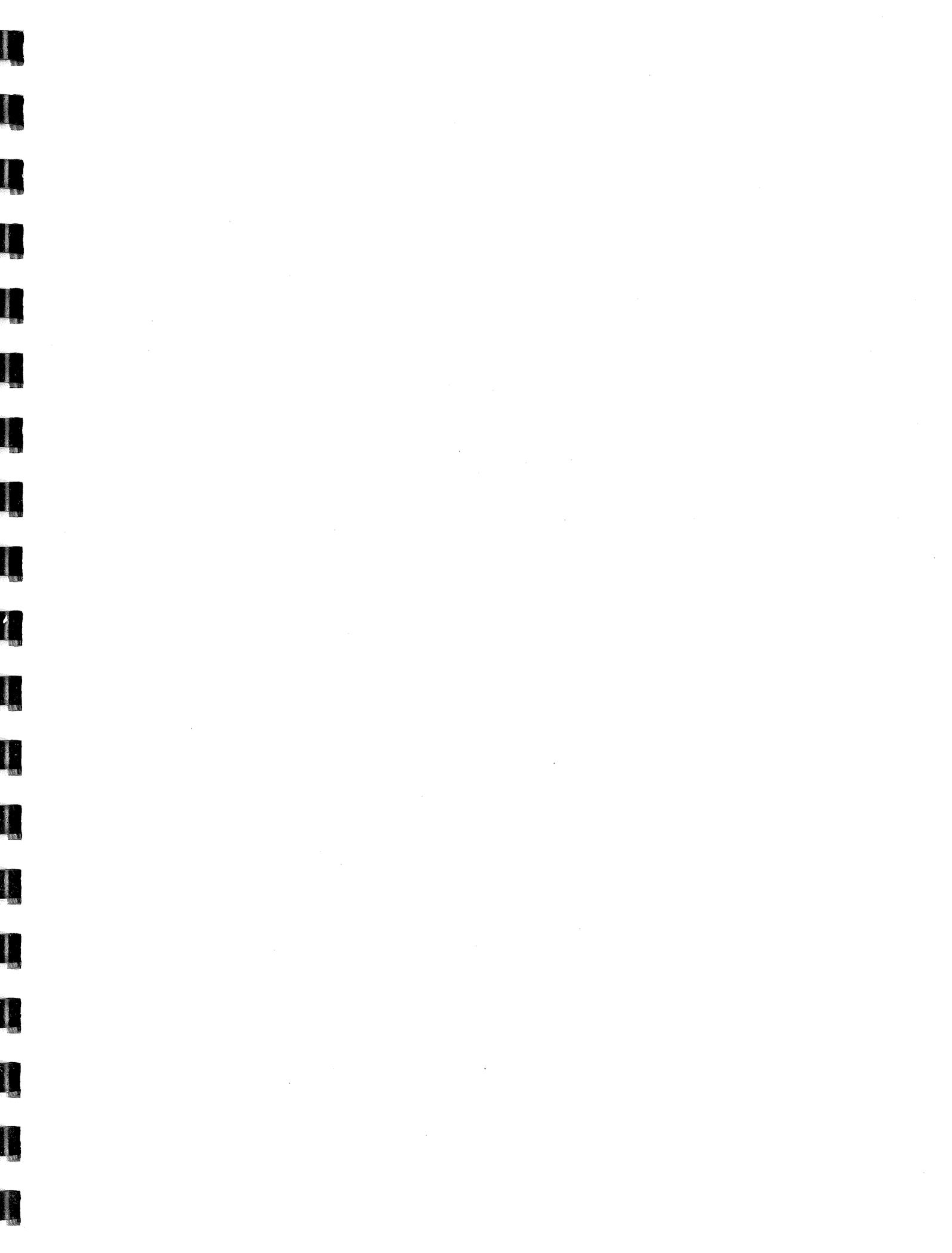
Minnesota Geographic Names; Warren Upham

Minnesota Historical Society

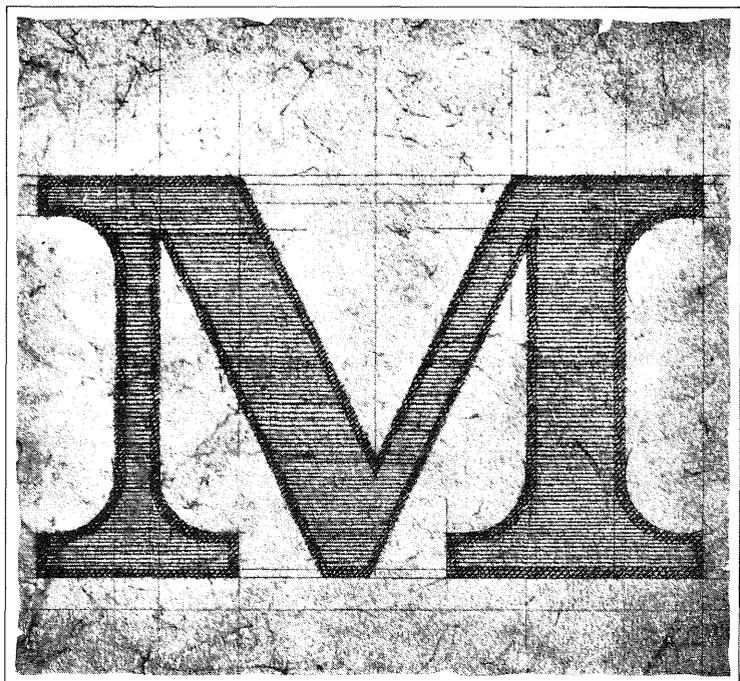
Statistics for the State of Minnesota; 1873, 1874

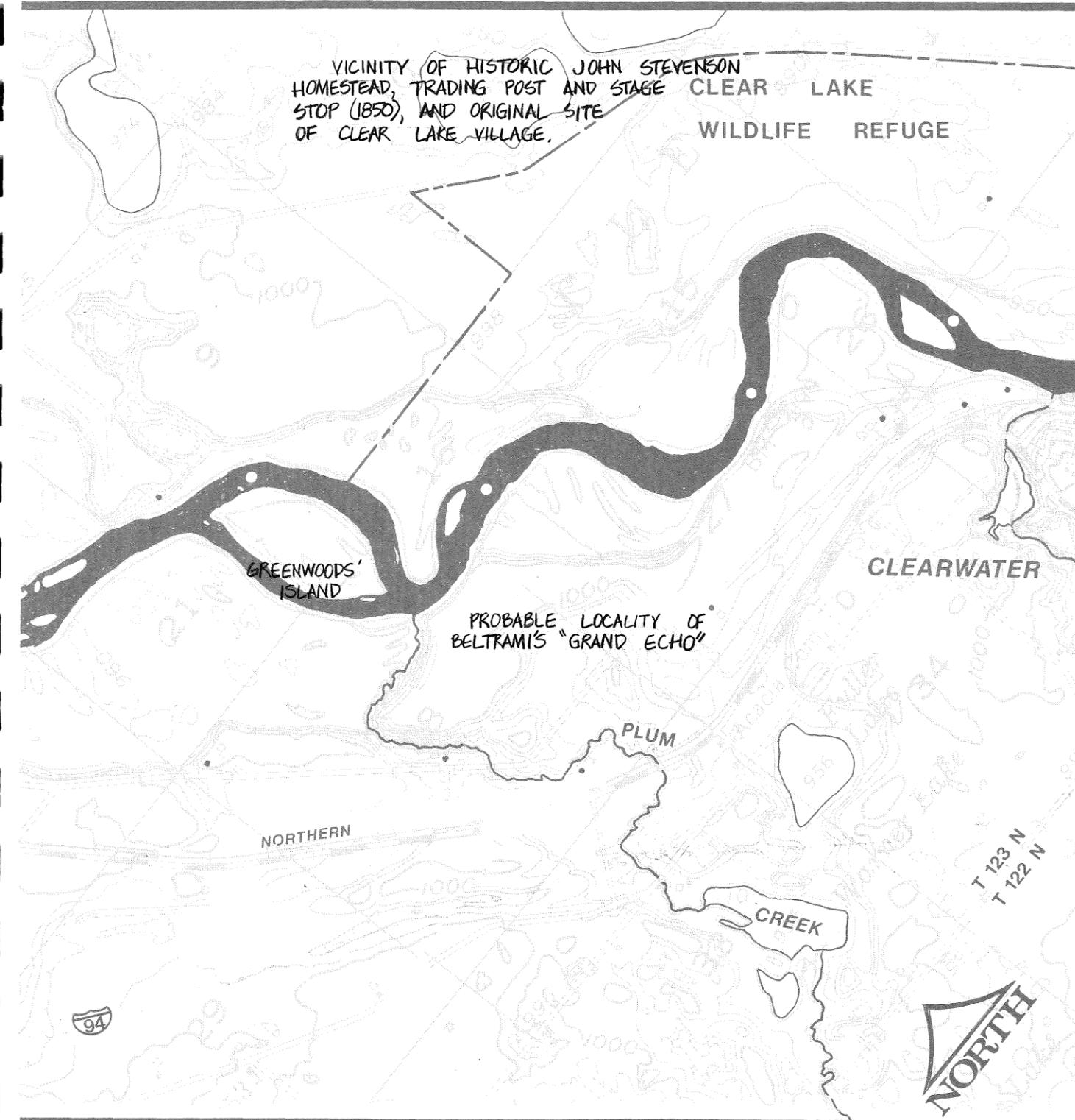
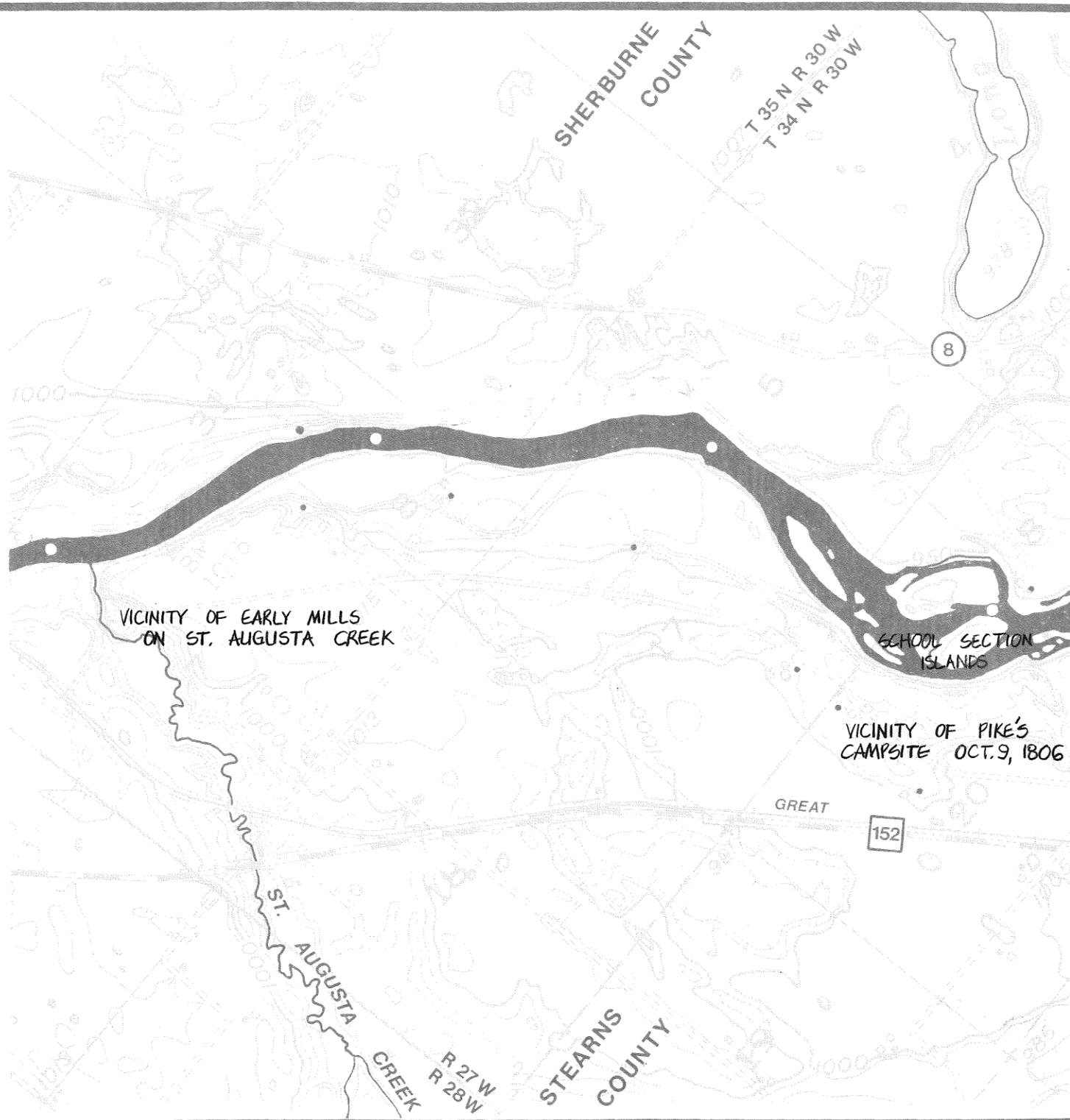
The Geological and Natural History Survey of Minnesota - Vol. II; N. H. Winchell
Travels Through the Interior Parts of North America; Jonathan Carver
U. S. Army Corps of Engineers; Annual Report of the Chief of Engineers, 1874





**HISTORICAL
REVIEW**



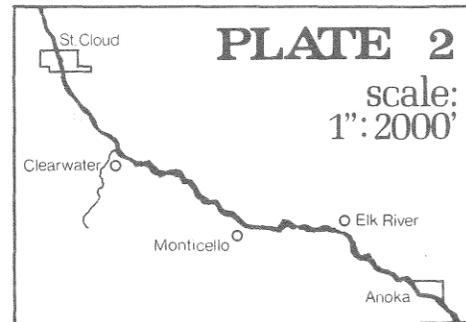


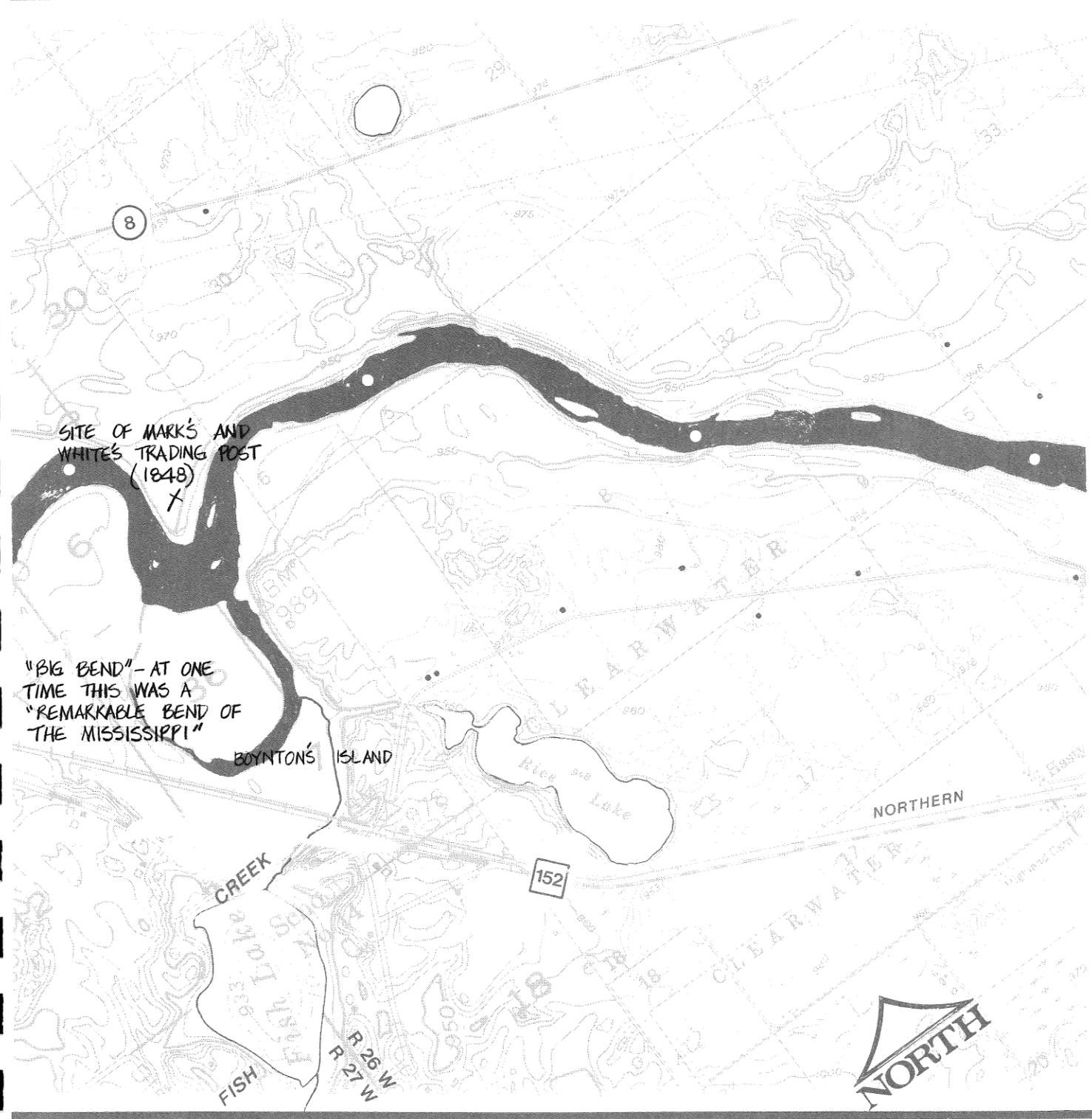
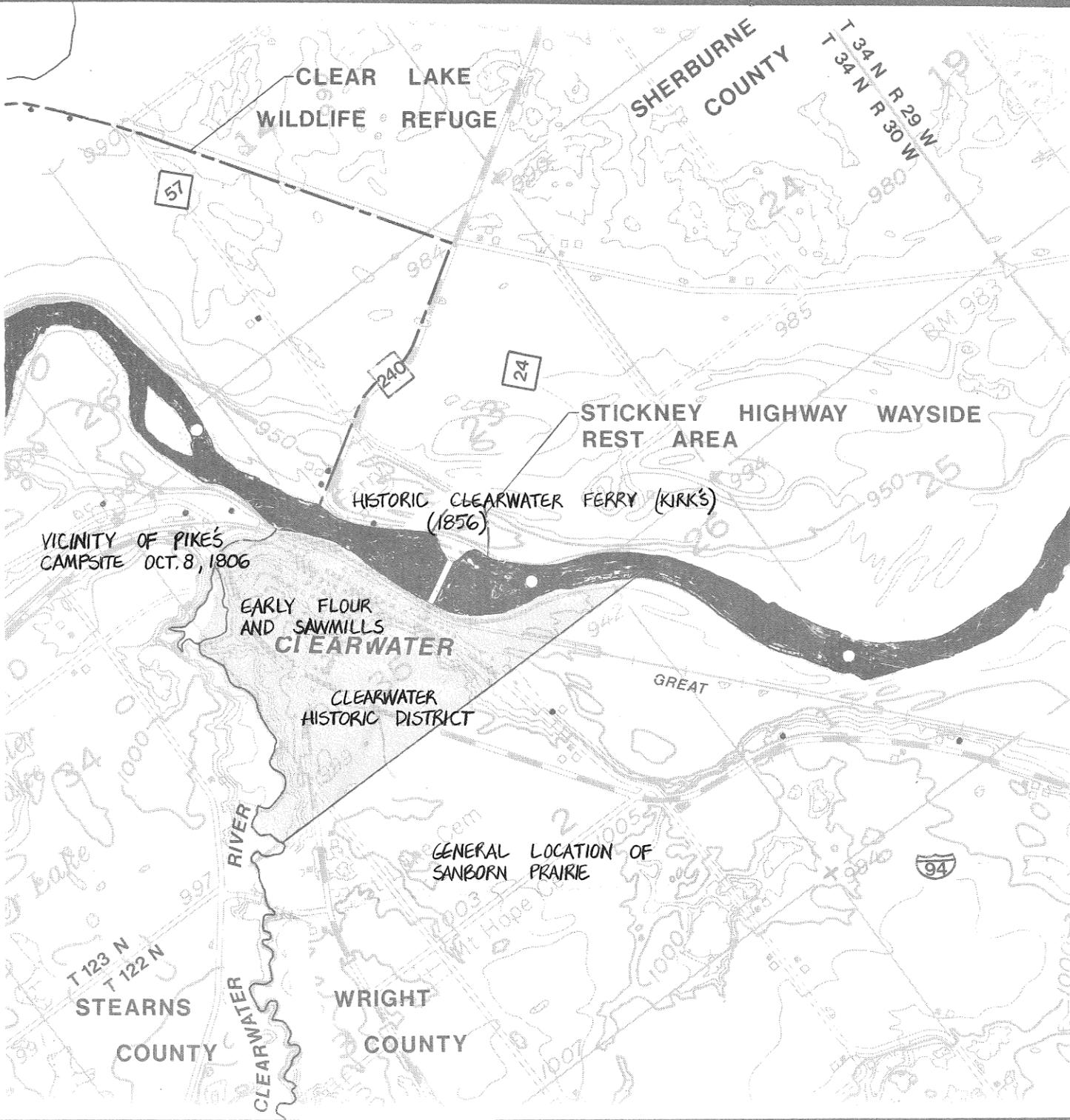
HISTORICAL

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| EARLY SETTLEMENTS | HISTORICAL CAMPSITES |
| FERRY CROSSINGS | INDIAN BATTLE SITES |
| GHOST TOWNS | INDIAN MOUNDS |

REVIEW

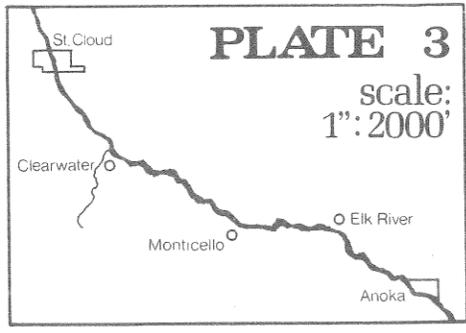
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| STAGE STOPS | OTHER HISTORICAL REMNANTS |

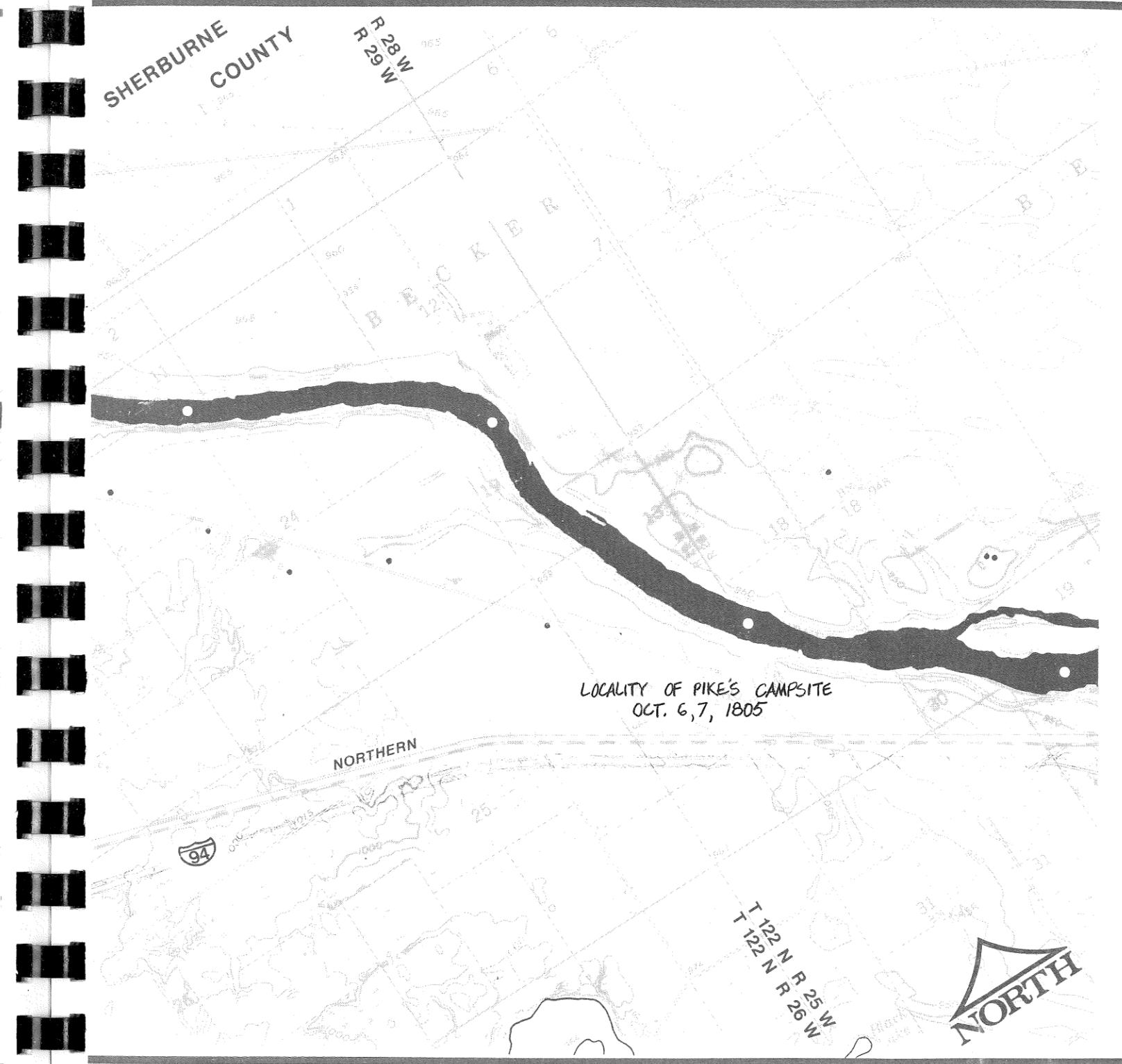
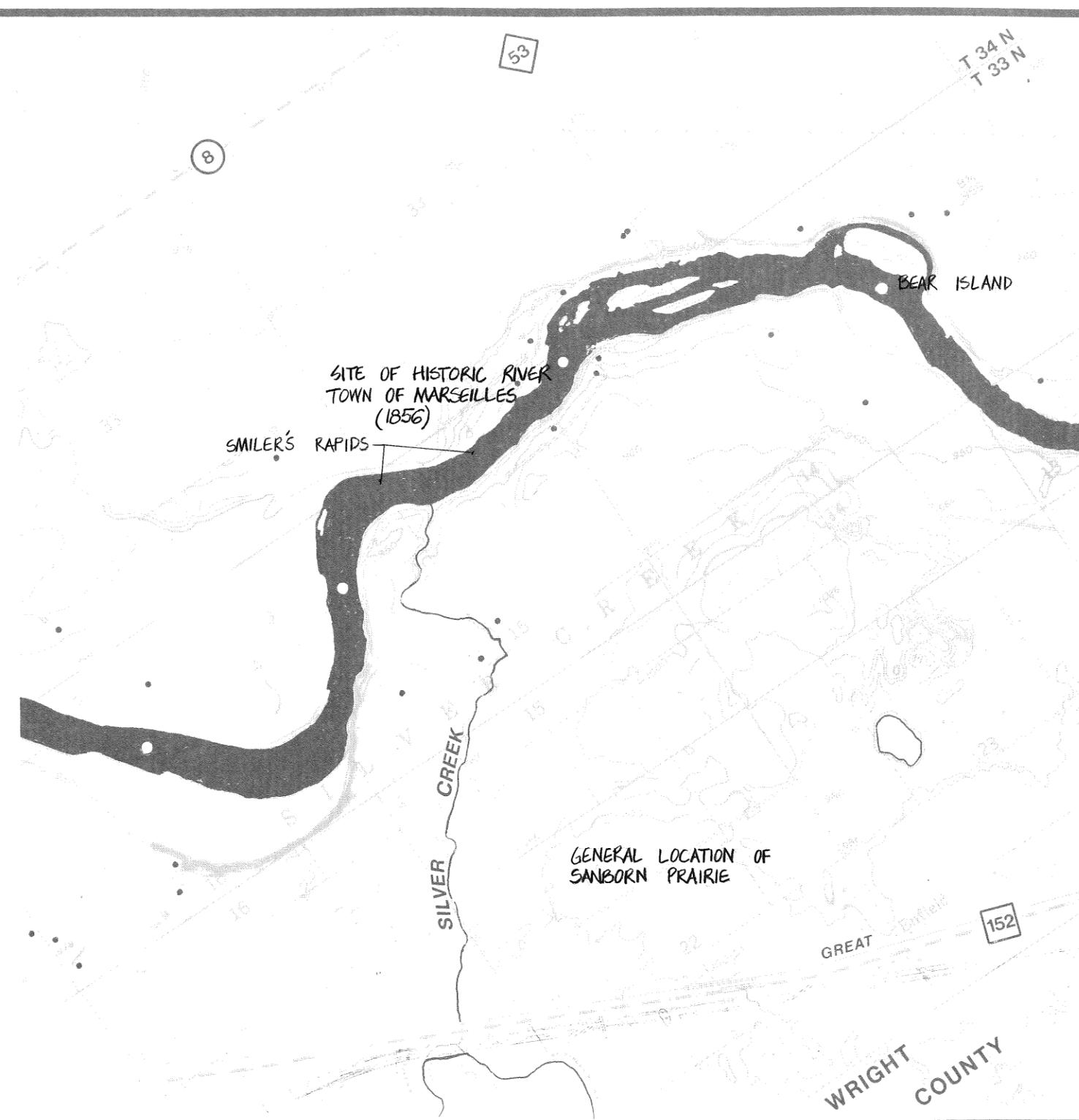




HISTORICAL			
EARLY SETTLEMENTS	HISTORICAL CAMPSITES		
FERRY CROSSINGS	INDIAN BATTLE SITES		
GHOST TOWNS	INDIAN MOUNDS		

REVIEW			
MILL SITES	STEAMBOAT LANDINGS		
PRAIRIE AREAS	TRADING POSTS		
STAGE STOPS	OTHER HISTORICAL REMNANTS		



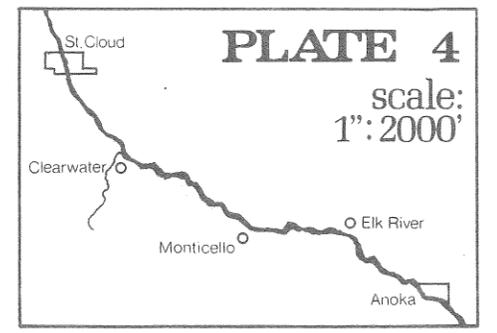


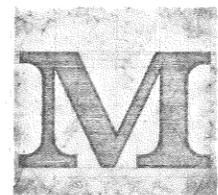
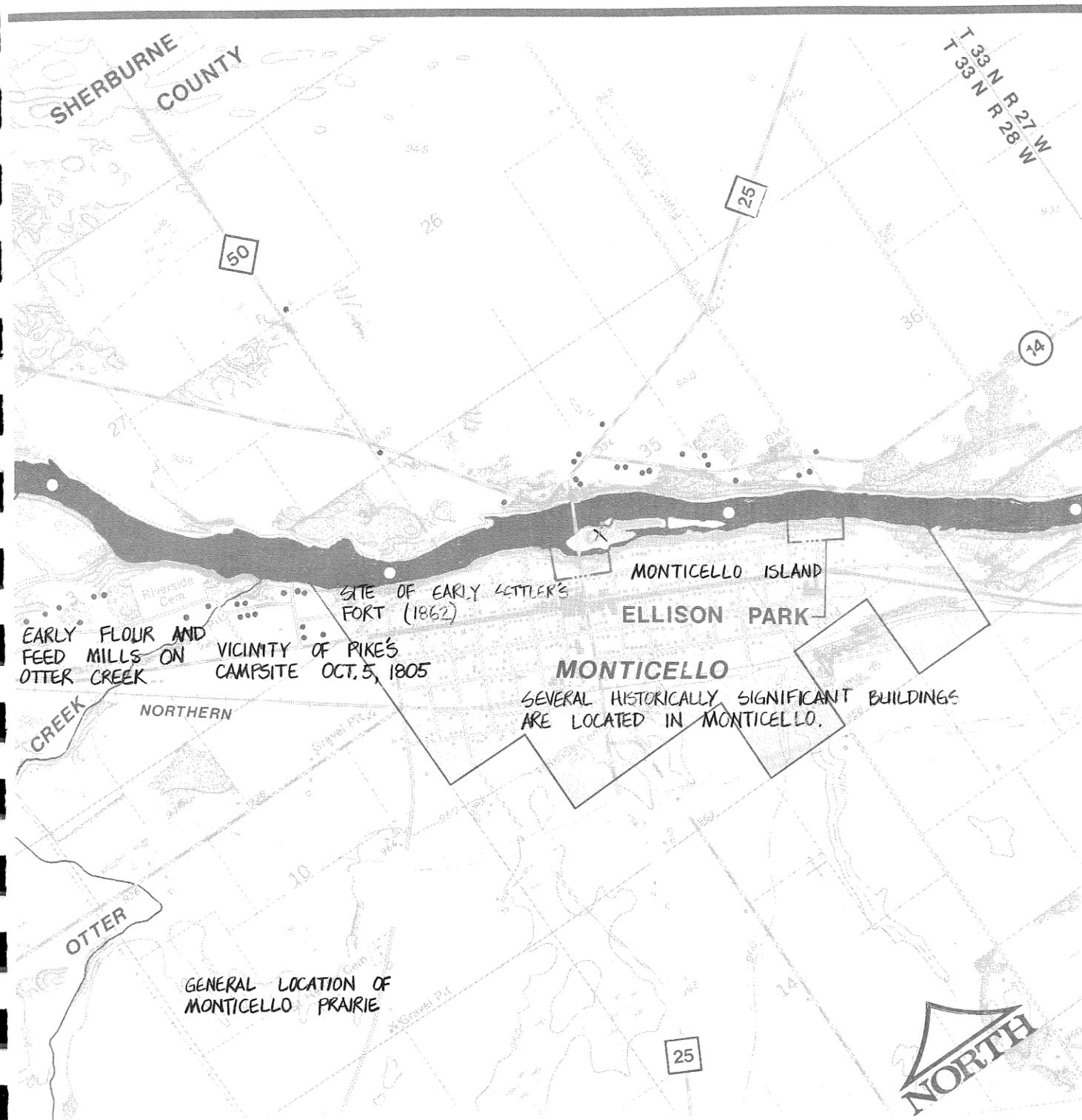
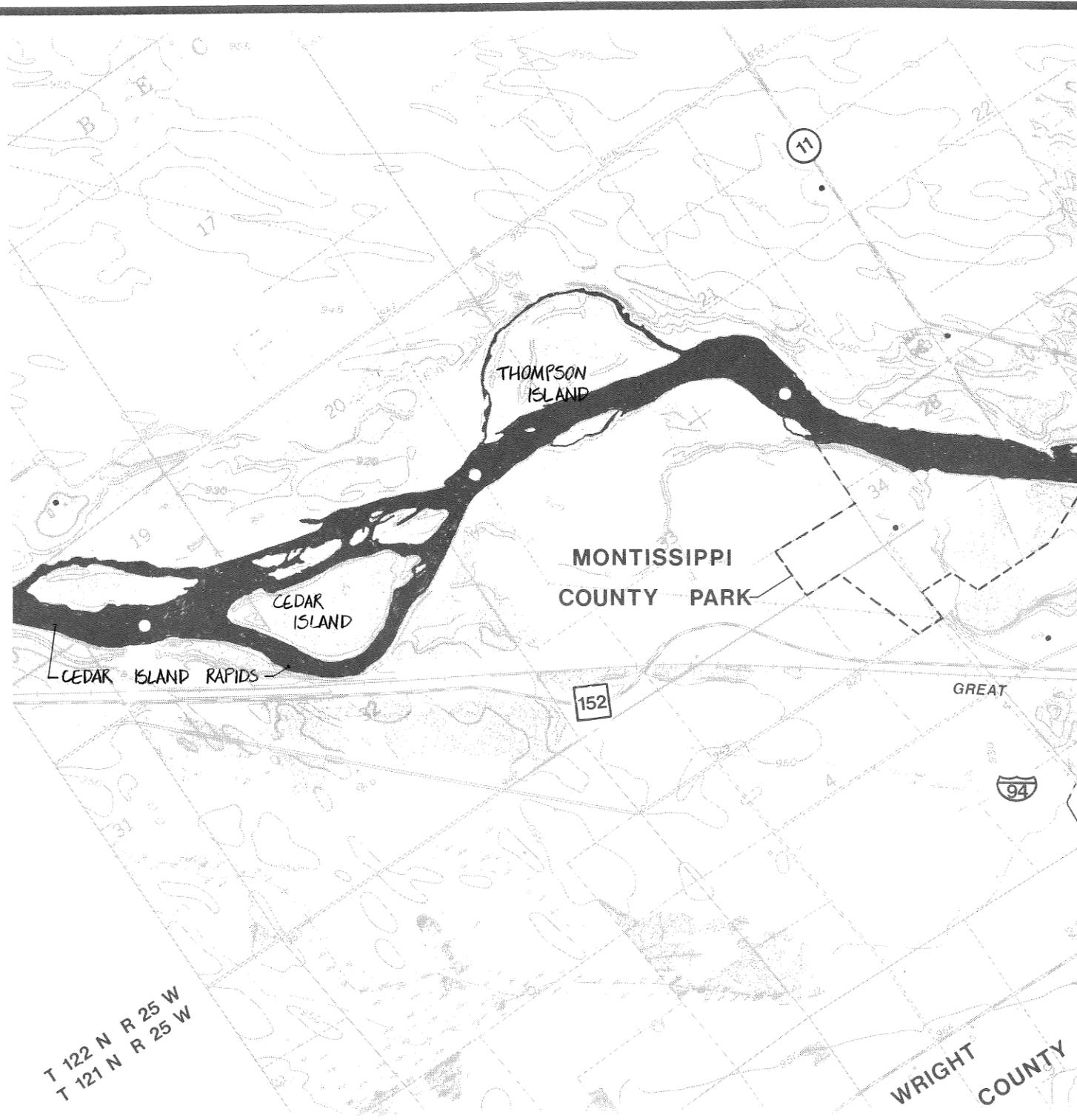
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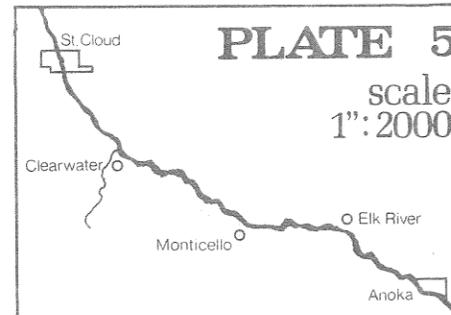
a management plan for the
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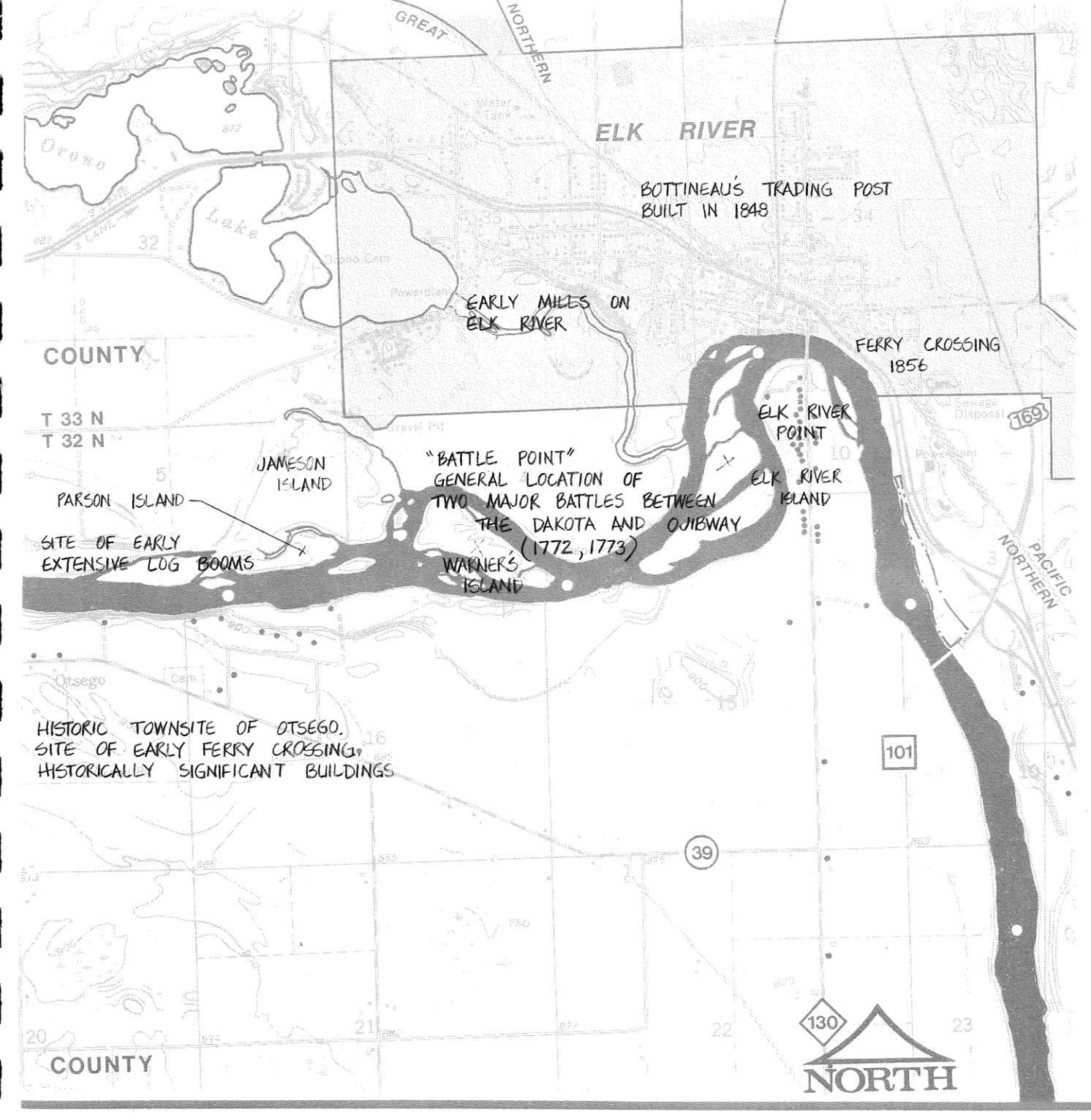
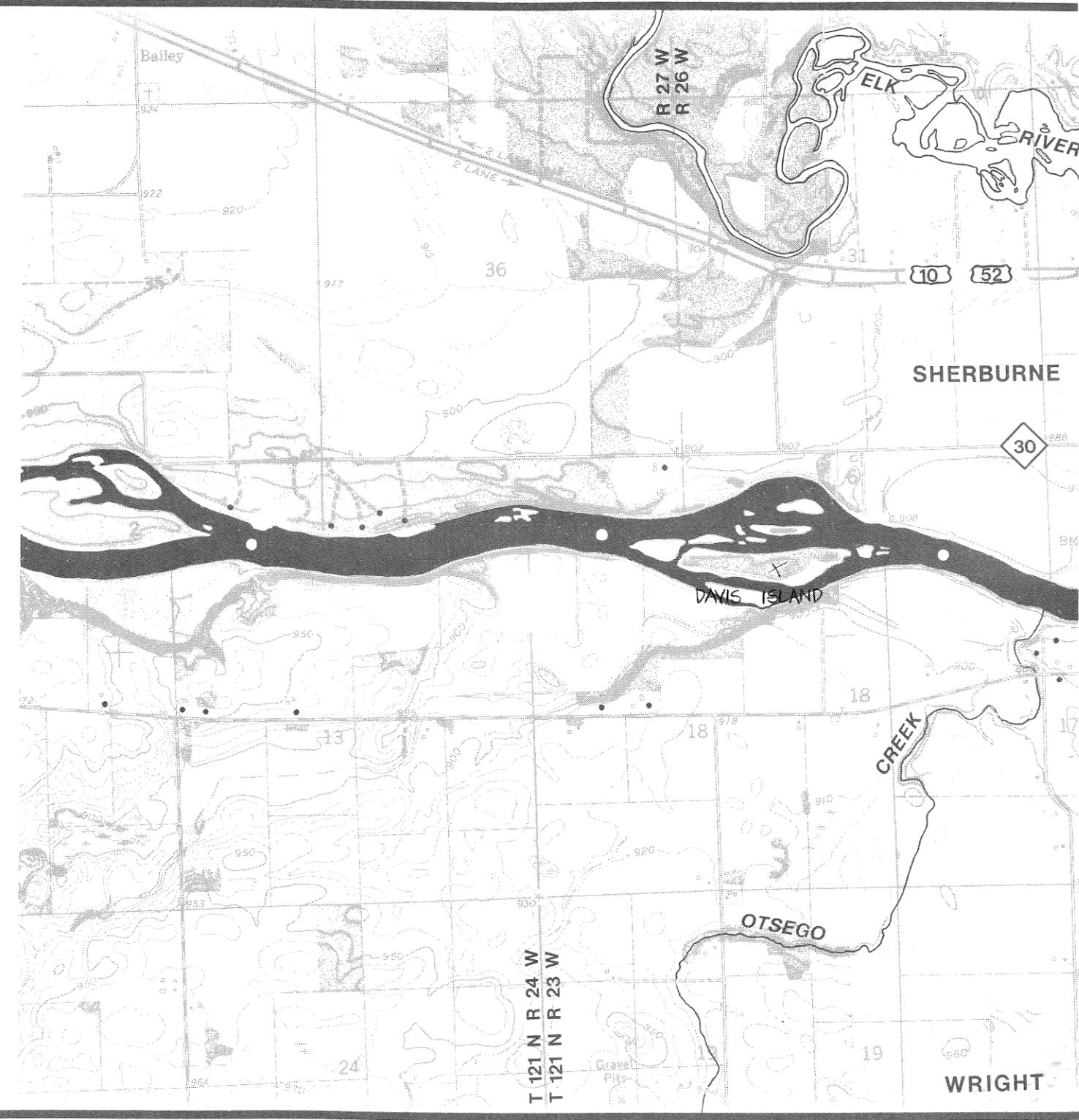
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REVIEW

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| MILL SITES | STEAMBOAT LANDINGS |
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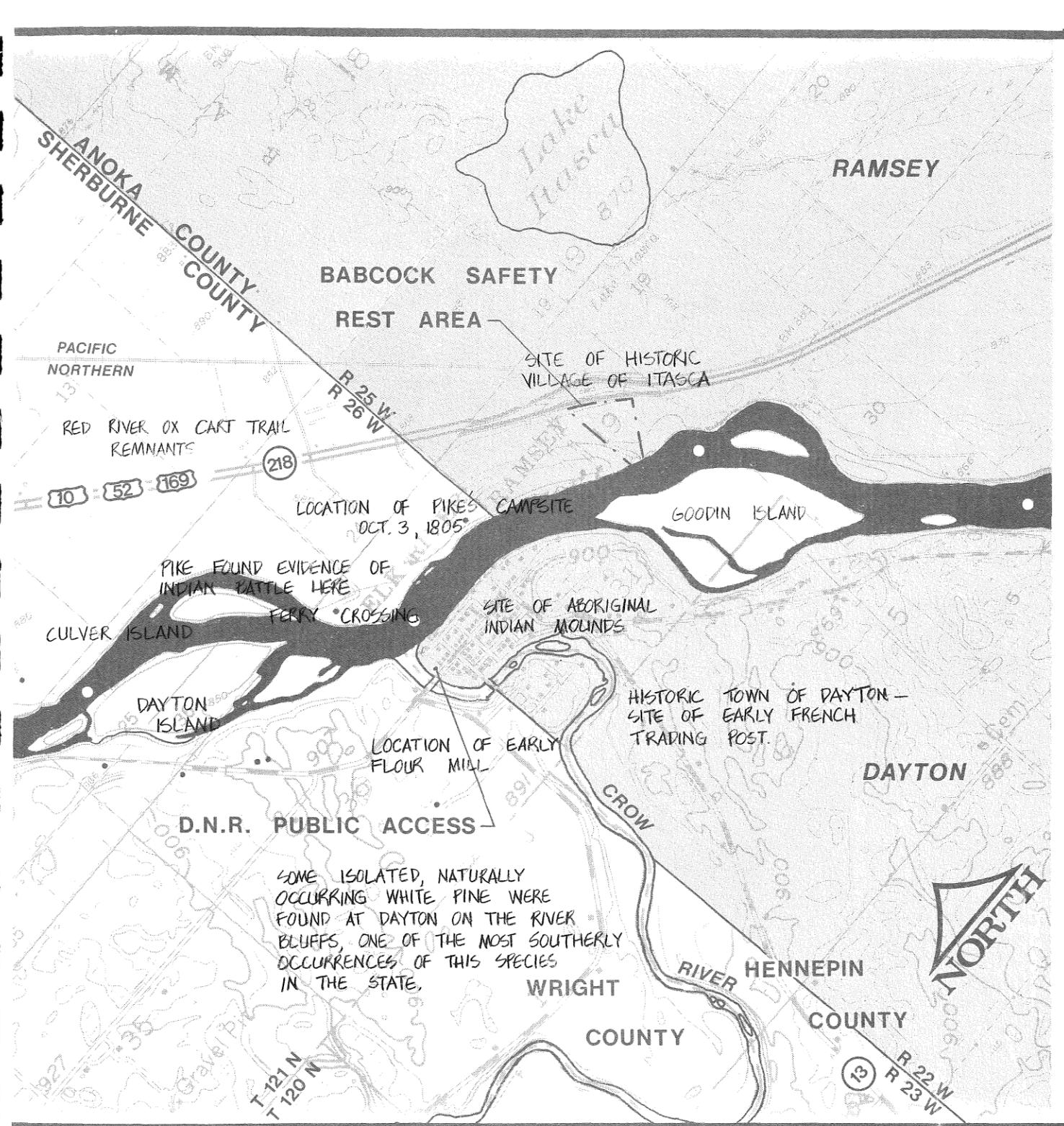
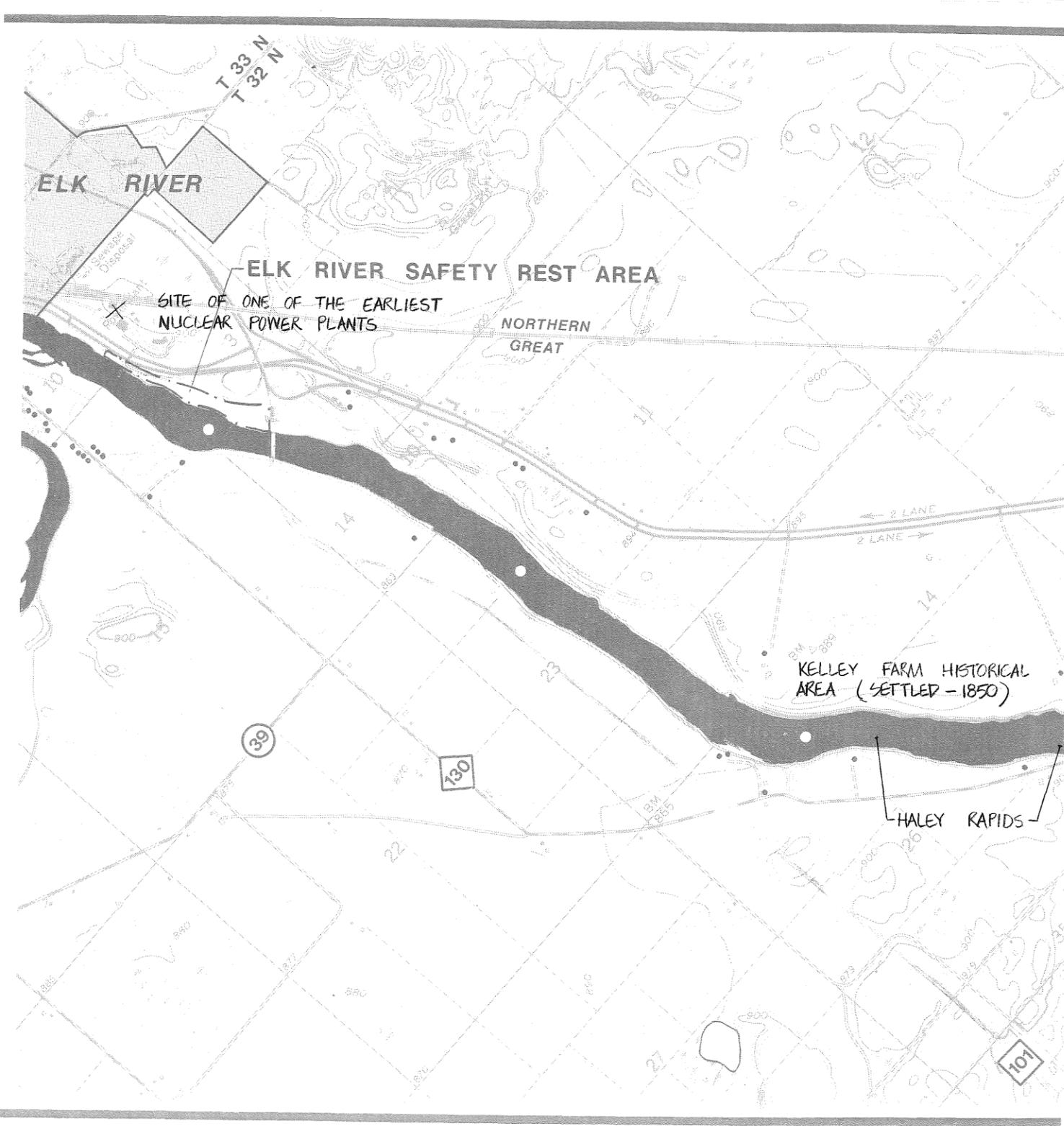
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EARLY SETTLEMENTS	HISTORICAL CAMPSITES	INDIAN BATTLE SITES	INDIAN MOUNDS
FERRY CROSSINGS			
GHOST TOWNS			

REVIEW			
MILL SITES	STEAMBOAT LANDINGS	OTHER HISTORICAL	REMNANTS
PRAIRIE AREAS	TRADING POSTS		LEGISLATIVE
STAGE STOPS			REFERENCE LIBRARY

PLATE 7
scale:
1" = 2000'

St. Cloud
Clearwater
Monticello
Elk River
Anoka

STATE OF MINNESOTA

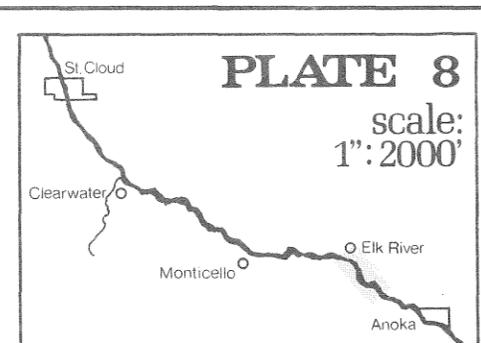


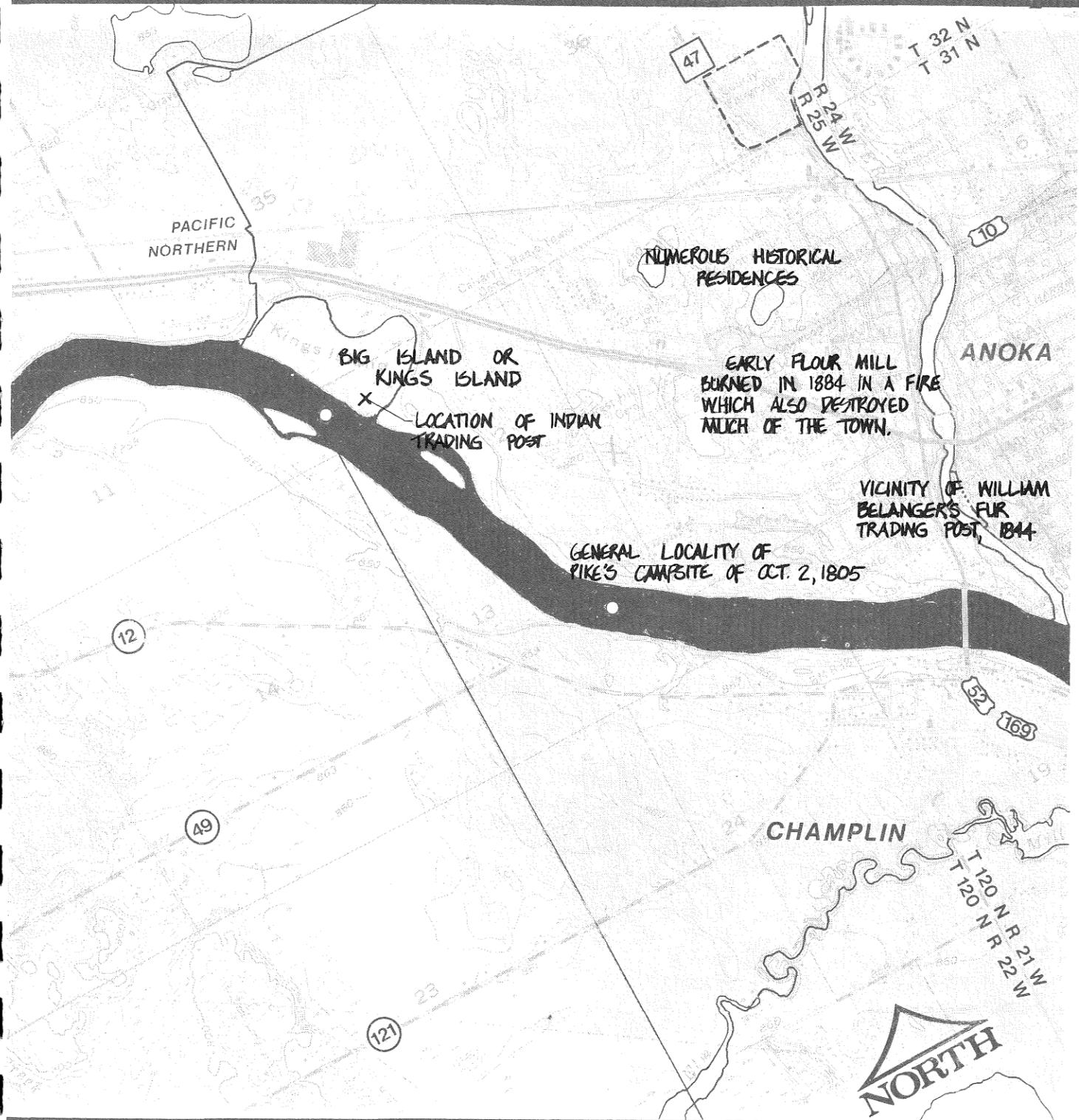
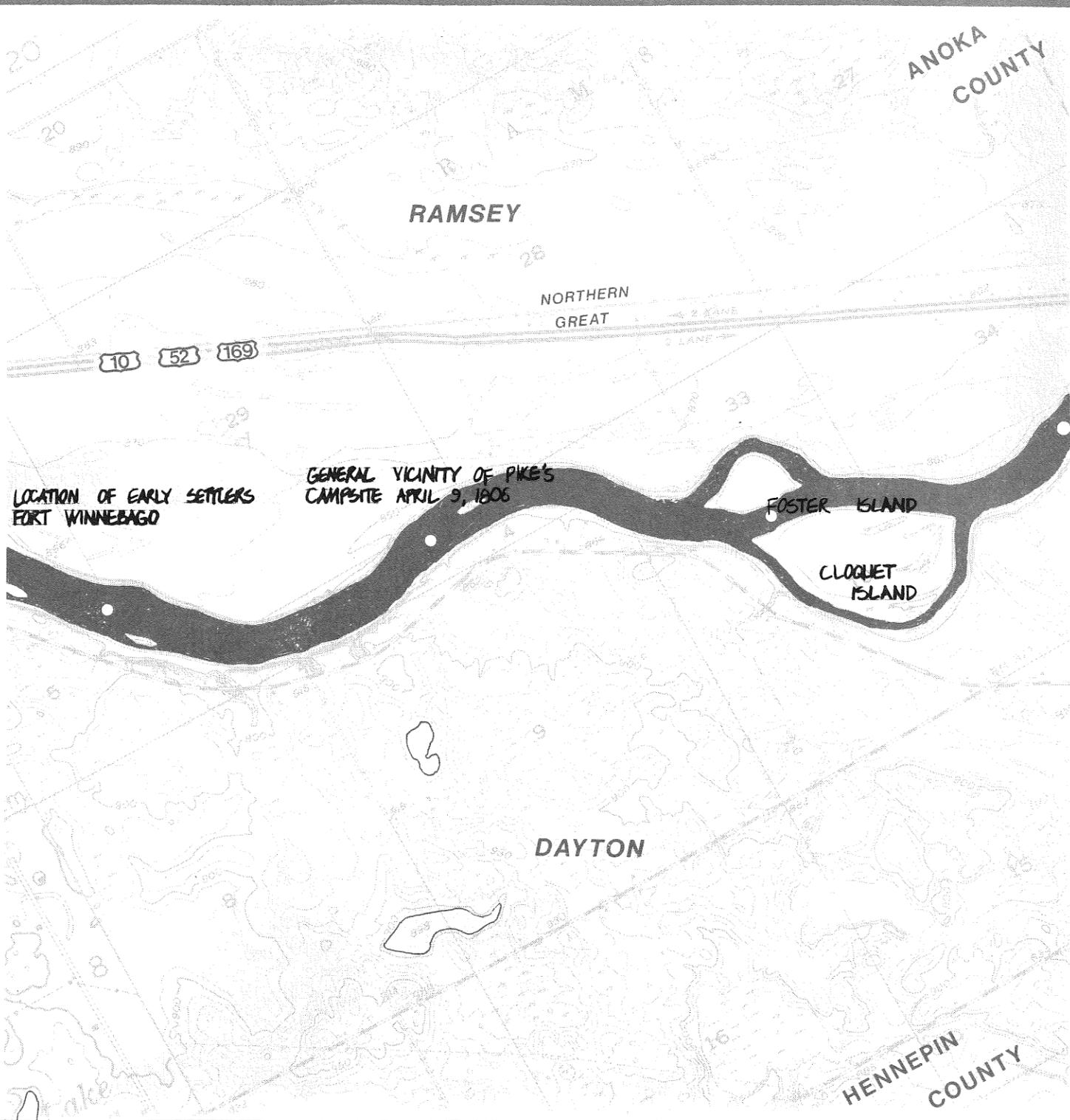
H I S T O R I C A L

EARLY SETTLEMENTS	HISTORICAL CAMPSITES
FERRY CROSSINGS	INDIAN BATTLE SITES
GHOST TOWNS	INDIAN MOUNDS

R E V I E W

MILL SITES	STEAMBOAT LANDINGS
PRAIRIE AREAS	TRADING POSTS
STAGE STOPS	OTHER HISTORICAL REMNANTS



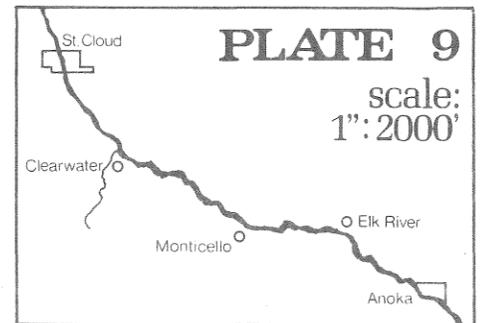


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REVIEW

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| MILL SITES | STEAMBOAT LANDINGS |
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| STAGE STOPS | OTHER HISTORICAL REMNANTS |



LAND USE

The land use of an area is the result of an interchange of numerous factors which have determined the present situation. To a large extent the basic resources of the area between St. Cloud and Anoka were responsible for guiding man's use of the land. The soils are generally well suited for agriculture - a fact which is reflected in the number of farms throughout the area. Where limitations of soils or topography exist, the land is often wooded or used for pasture rather than cultivation. Cultural factors have also played a major role in determining the present patterns of land use. Towns were often founded on intervals along railroad lines or roads. The influence of the expanding metropolitan area is being felt along the entire management plan study area, though it is more obvious in the lower portion closer to the cities. In this area, residential use is increasing.

The dominant land use along the management area portion of the Mississippi River is agriculture. Included in this category is land under cultivation, pasture land, and open land. This agricultural land accounts for approximately % of the total land use of the area. The distribution of agricultural land is fairly uniform along the length of the river from St. Cloud to Anoka. Most of this land is used for cultivation. The fringe of wooded land adjacent to rivers and streams is often used for pasture.

The land immediately adjacent to the Mississippi River and its tributaries is often forested to a large degree. In some cases, farm fields do extend almost to the river's edge. Usually, however, the river banks, stream courses and low areas are wooded and upland woodlots are not uncommon. In many areas, these wooded banks and lowlands provide quite a scenic appearance as viewed from the river and often provide the illusion of a more extensive natural area than actually exists. This fringe of forest is, therefore, quite essential to the preservation of the scenic aspect of the river and also provides valuable habitat for wildlife. Forested land represents about 71% of the total land use. In addition to this total forested area, the immediate shoreline is approximately 71% wooded. A more detailed analysis of the shoreline is provided in the section on vegetation.

As previously mentioned, residential land use is growing in importance. At present this use is concentrated in and about the existing communities. Some outlying areas along the river are beginning to show some scattered growth in residential use, however. In some of these residential areas, the natural landscape has been altered to a large degree. In some cases, vegetation has been cleared away, banks stabilized, and alterations in the shoreline have been made. These types of changes are becoming more evident between Elk River and Anoka and immediately downstream from St. Cloud. In general, the closer to the metropolitan area, or other communities, the more man-made changes have been made.

Transportation is another important land use. Numerous roads parallel the river, in addition to farm roads and residential streets. Highway crossings of the river, however, are relatively rare for such a lengthy portion of the river. The only bridges are at St. Cloud (upstream from the dam), Clearwater,

Monticello, Elk River, and Anoka. The Burlington Northern Railroad parallels the river quite closely in the area of Clearwater.

In addition to the Mississippi River and its tributaries, there are some upland areas of open water or marsh. Most of these areas are not immediately adjacent to the Mississippi, however.

The portion of the Mississippi from St. Cloud to Clearwater generally presents a less developed and more pastoral or natural aspect than the portion between Clearwater and Anoka. The latter portion of the river still has areas of scenic value, however, despite the greater amount of residential development.

POPULATION CHARACTERISTICS

The 55-mile portion of the Mississippi River lies within an hour's drive of the largest population center in Minnesota. The Standard Metropolitan Statistical Area (SMSA) which includes the Twin Cities of Minneapolis, St. Paul and their suburbs, has a population of about 1.8 million people. Projections of future population trends show an expected increase for this Standard Metropolitan Statistical Area of some 700,000 by the year 1985. This would bring the population of the area to about 2.5 million people.

Five counties border the river along its flow from St. Cloud to Anoka. They have a combined population of 1,267,313. Populations of the specific counties are: Stearns - 95,400; Wright - 38,933; Sherburne - 18,344; Anoka - 154,556; and Hennepin - 960,080.

Towns along the route, which border the river include St. Cloud with a population of 42,223; Clearwater with 282; Monticello with 1,636; Elk River with 2,252; Dayton with 2,675 and Anoka with 13,289.

The existing population base, plus a projected increase, will create additional pressure for uses such as recreation and residential development along the river and adjacent lands.

Source: Minnesota Analysis and Planning System, 4th Court Summary, 1970 Census.

Table

POPULATION TRENDS AND PROJECTIONS

<u>County</u>	<u>Area (Sq. Mi.)</u>	<u>1960 Pop'n</u>	<u>1970 Pop'n (Approx)</u>	<u>1960-70 Pop'n Change %</u>	<u>1980 Projected Pop'n (Approx)</u>	<u>1970-80 Proj. Pop'n Change %</u>
Stearns	1,342	80,345	95,400	+ 18.7	108,200	+ 13.4
Sherburne	431	12,861	18,300	+ 42.6	24,700	+ 35.0
Wright	674	29,935	38,900	+ 30.0	47,200	+ 21.3
Anoka	424	85,916	154,500	+114.5	347,300	+124.8
Hennepin	<u>567</u>	<u>842,854</u>	<u>960,100</u>	<u>+ 13.9</u>	<u>1,078,200</u>	<u>+ 12.3</u>
Total	3,438	1,051,911	1,267,200	+ 20.5	1,605,600	+ 26.7

Source: Minnesotans and Their Mississippi River,
Minnesota Esthetic Environment Task Force

WATER USE

Early explorers and fur traders used the Mississippi River as part of a major transportation artery through the wilderness. Explorers such as Zebulon Pike, Father Hennepin and Henry Schoolcraft followed this water route.

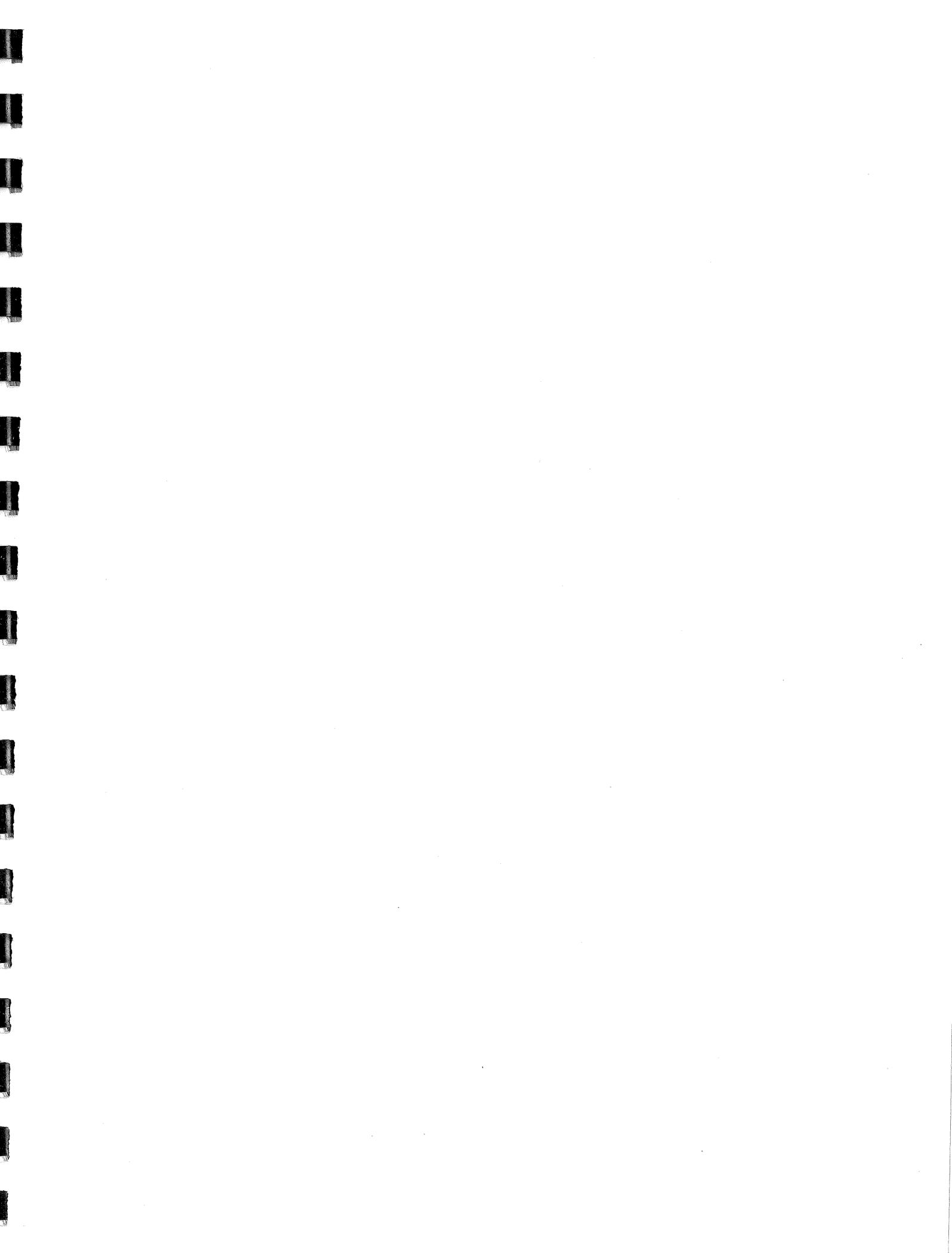
As the years passed, so passed the heyday of the explorer and fur traders. With their demise came the logger and the settler. During the nineteenth century, most of this portion of the Mississippi River was used principally for floating logs by the lumber industry. For several years during this period, steamboats navigated the river between the falls at St. Anthony to St. Cloud.

By the 1860's the era of the steamboat all but ended when navigation ceased because of a severe drought. The steamboat never made much of a comeback because of the completion of the rail line between St. Paul and St. Cloud, although one boat made "occasional and difficult trips" as late as 1874.

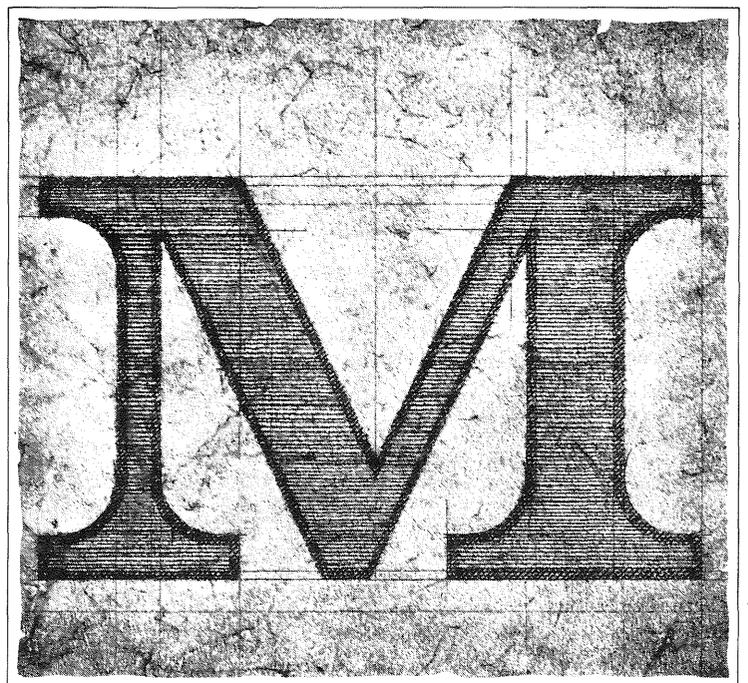
At present, the only navigational use of the river is recreational boating and this use is light. The Corps of Engineers, at this time, has no congressionally-authorized project for the maintenance of a navigation channel for this portion of the river.

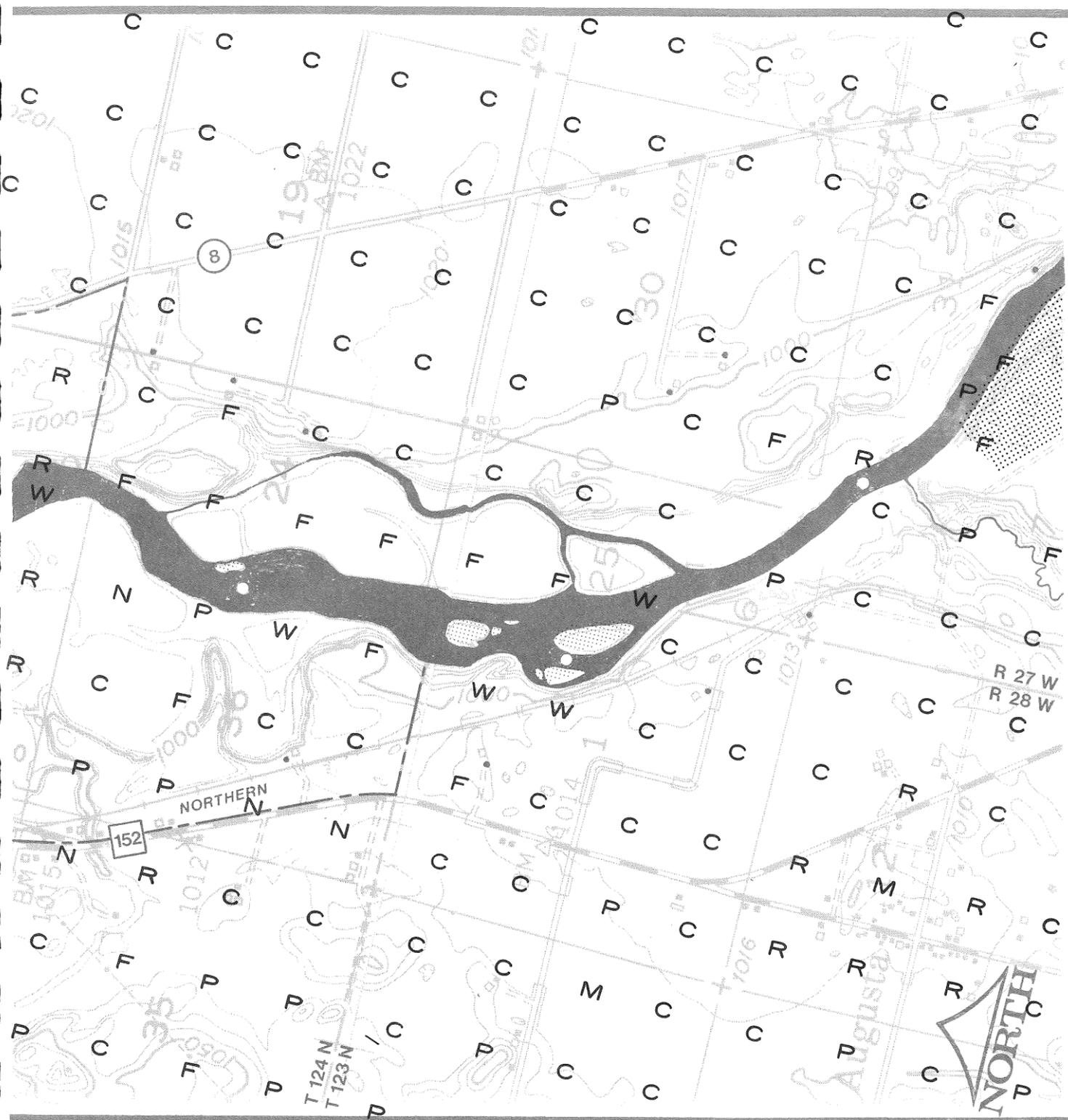
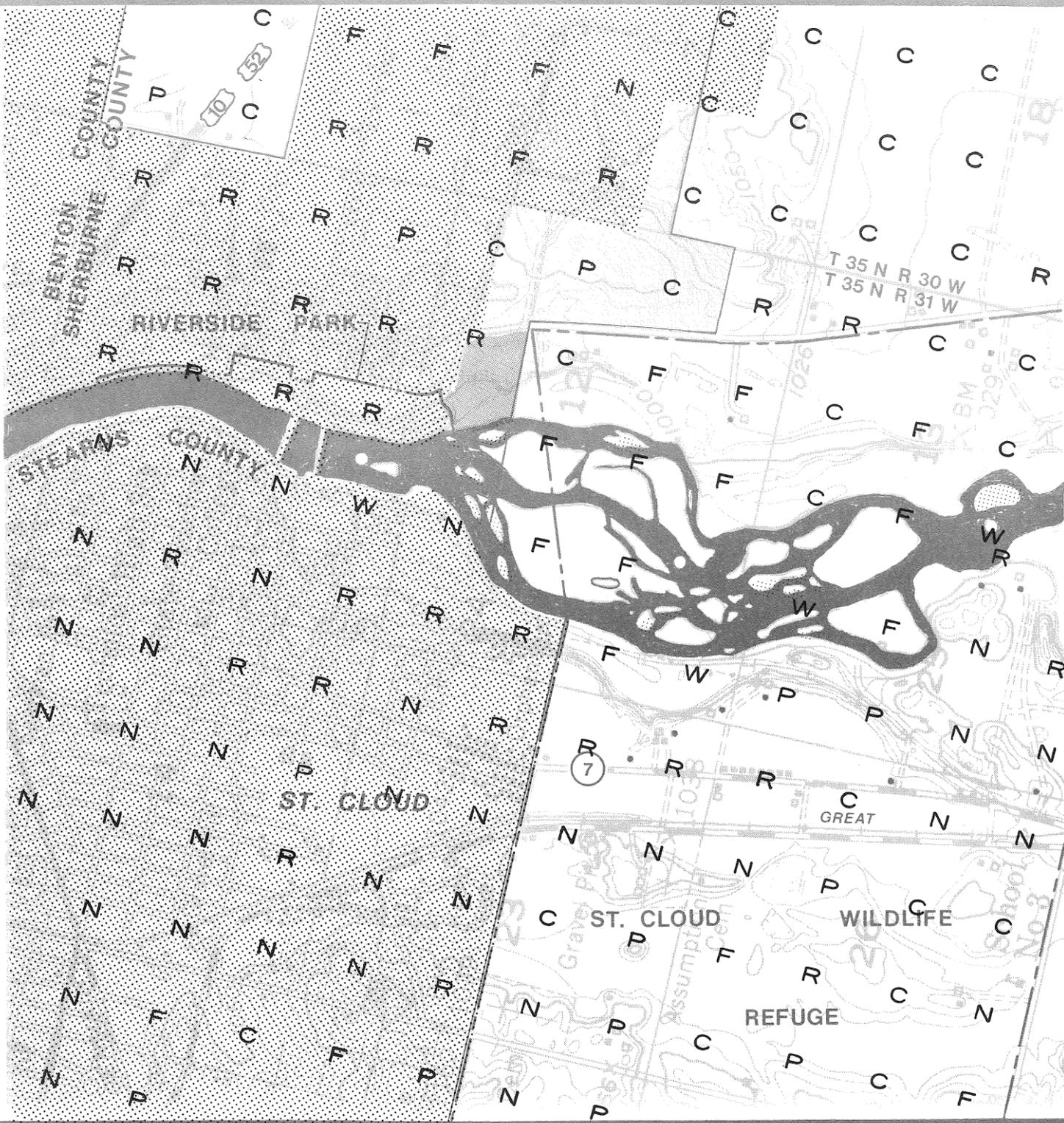
Other uses of the river are for irrigation and industry. Water use for irrigation is common, especially during dry periods. Among the two largest industrial users are the Nuclear Generating Plant at Monticello and the Elk River Electrical Generating Plant. Both use water for cooling operations. A third power plant, the Sherburne County Electrical Generating Plant, will be operational by 1976.

Sources: Department of the Army - Corps of Engineers, St. Paul District NSP Monticello Nuclear Generating Plant, Final Safety Analysis Report, Volume 1, Northern States Power Company, Minneapolis, Minnesota.



**LAND USE
AND OWNERSHIP**

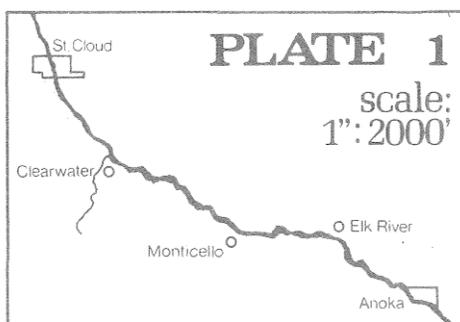


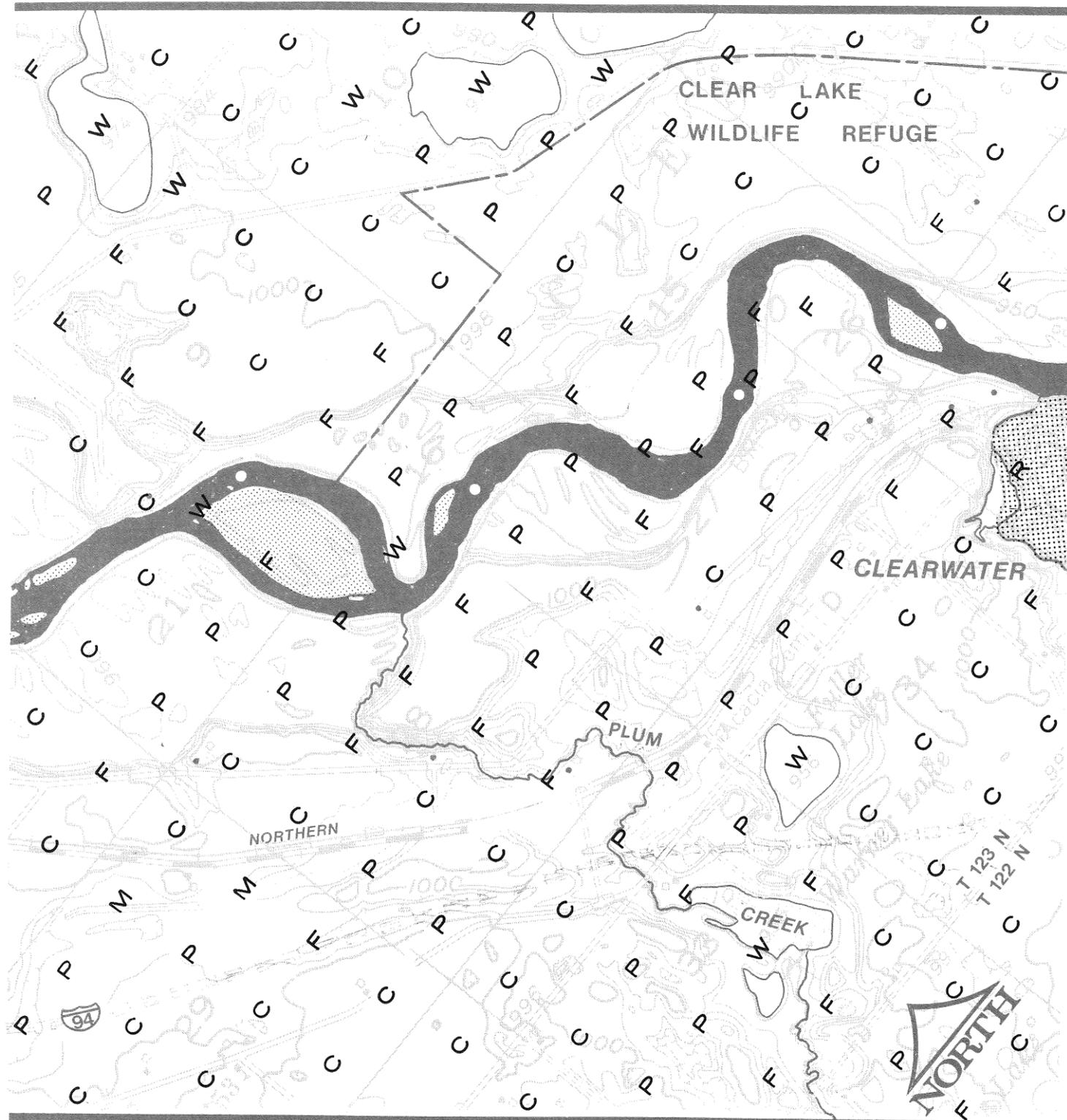
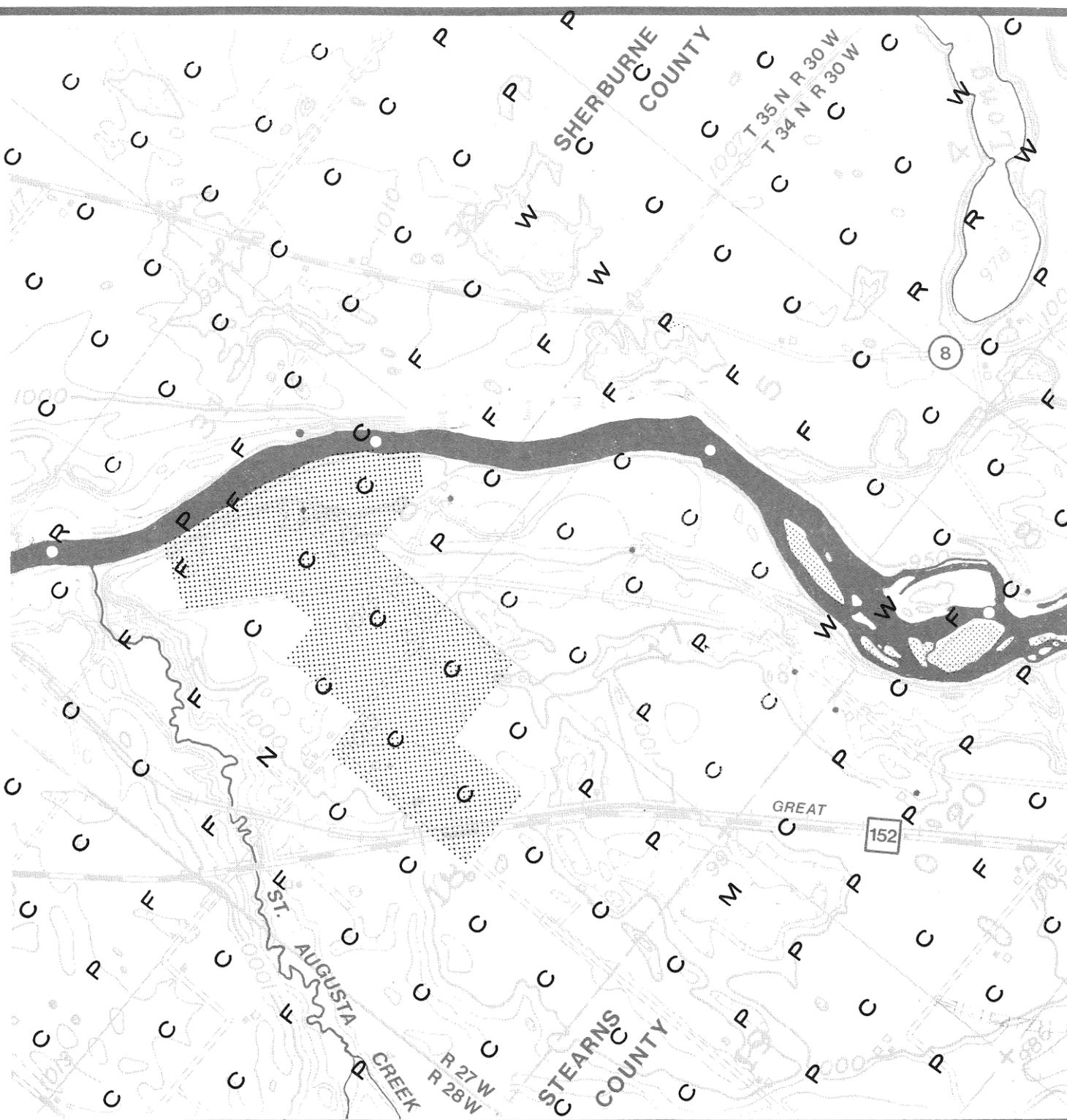


* LAND USE AND OWNERSHIP

<p>F - FORESTED C - CULTIVATED P - PASTURED M - MARSH</p>	<p>W - WATER R - RESIDENTIAL N - URBAN (non-residential) E - EXTRACTIVE T - TRANSPORTATION</p>	<p> FEDERAL</p> <p> STATE</p> <p> COUNTY</p> <p> PRIVATE</p>	<p> MUNICIPAL</p> <p> TRUST FUND</p> <p> SCHOOL DISTRICT</p>
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*by forty as per MLMIS land classification system





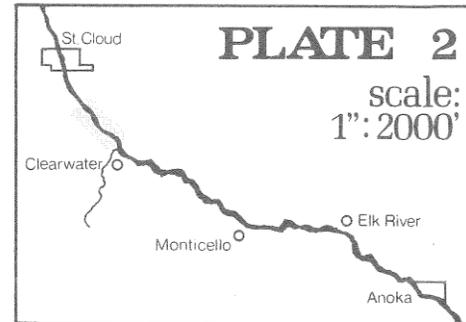
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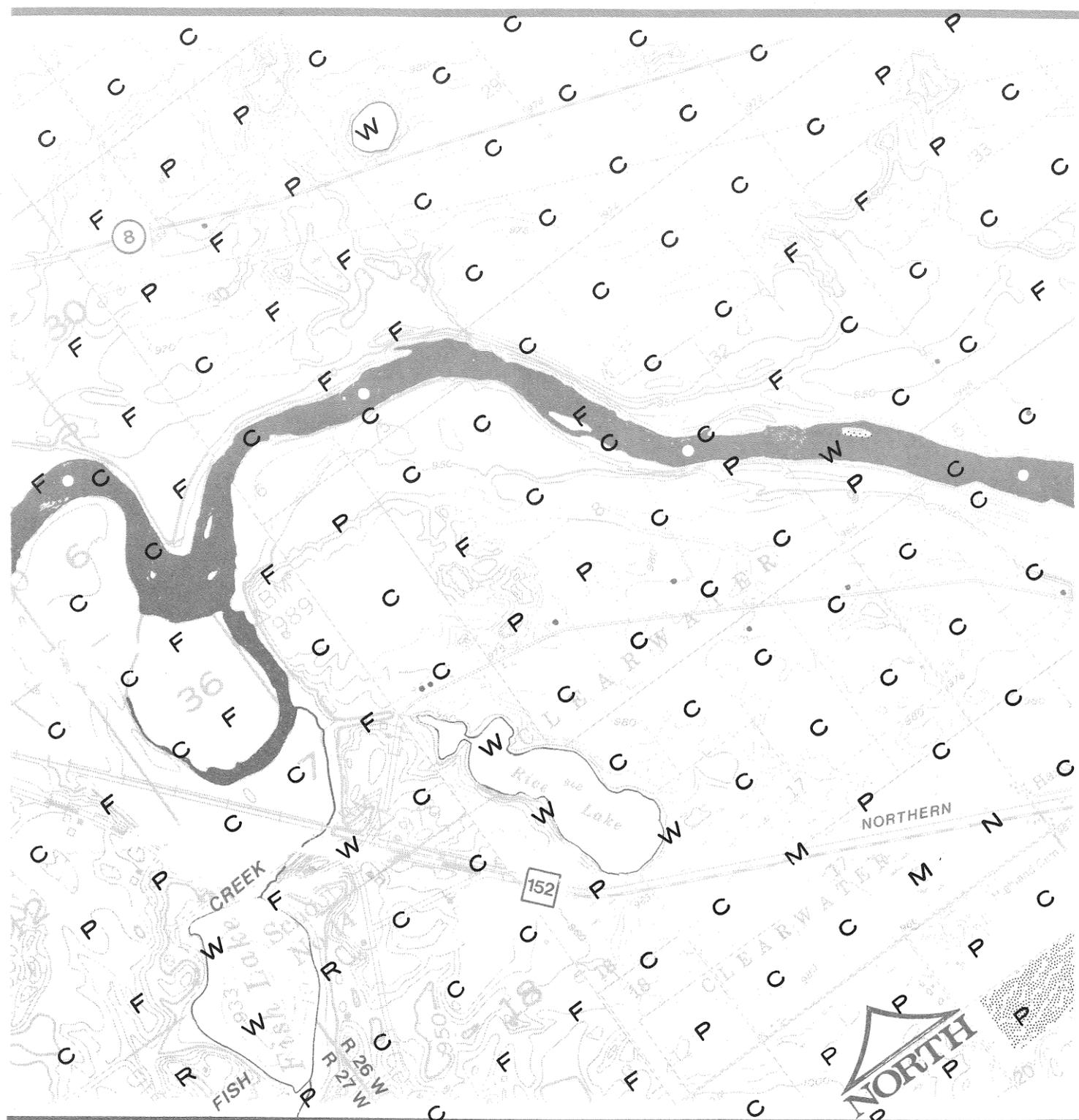
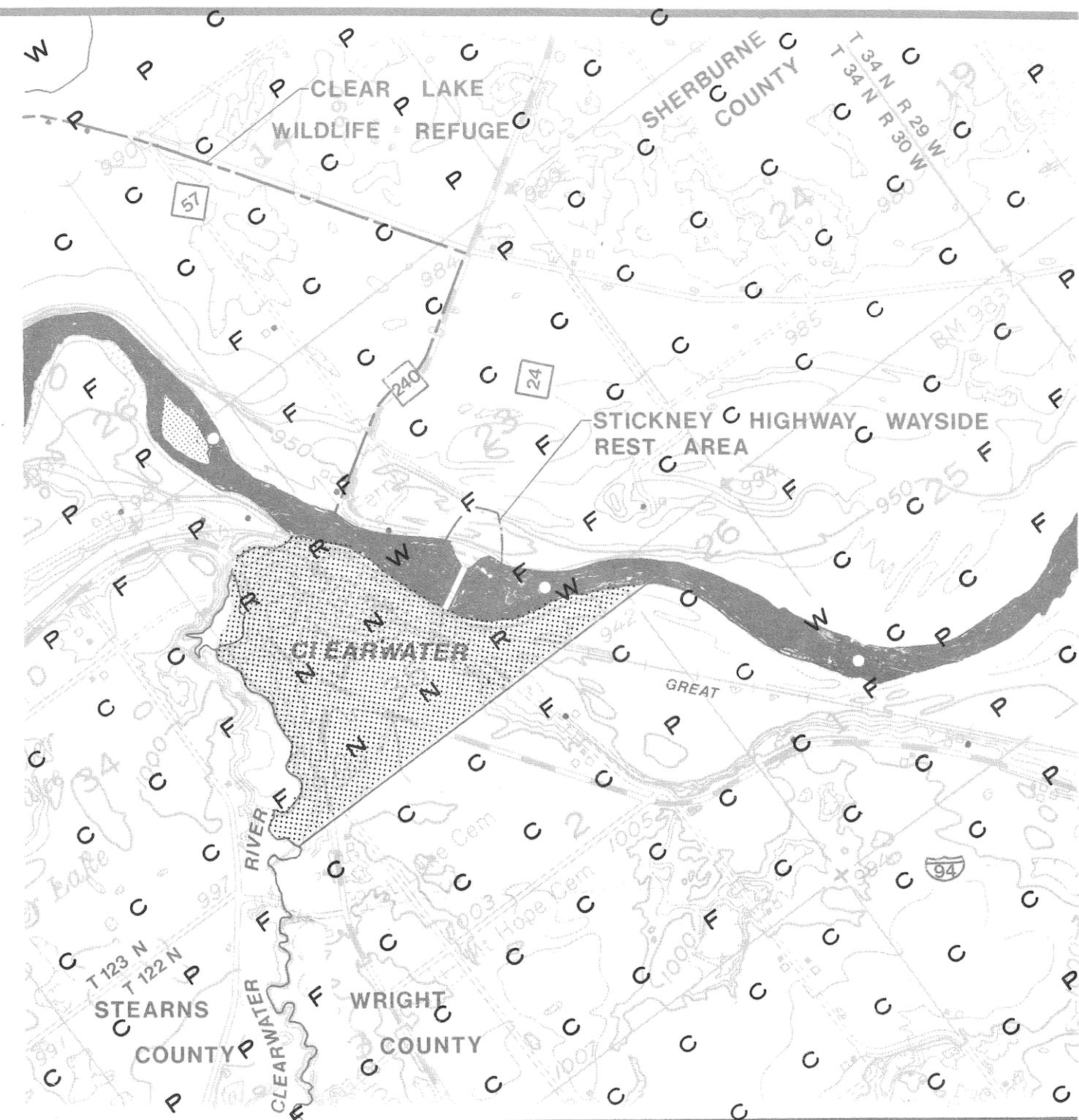
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M - MARSH	E - EXTRACTIVE
	T - TRANSPORTATION

*by forty as per MLMIS land classification system

OWNERSHIP

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	STATE		TRUST FUND
	COUNTY		SCHOOL DISTRICT
	PRIVATE		





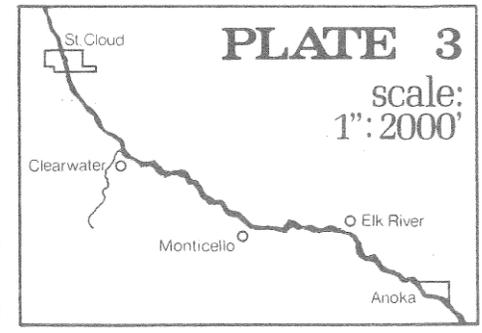
* LAND USE AND OWNERSHIP

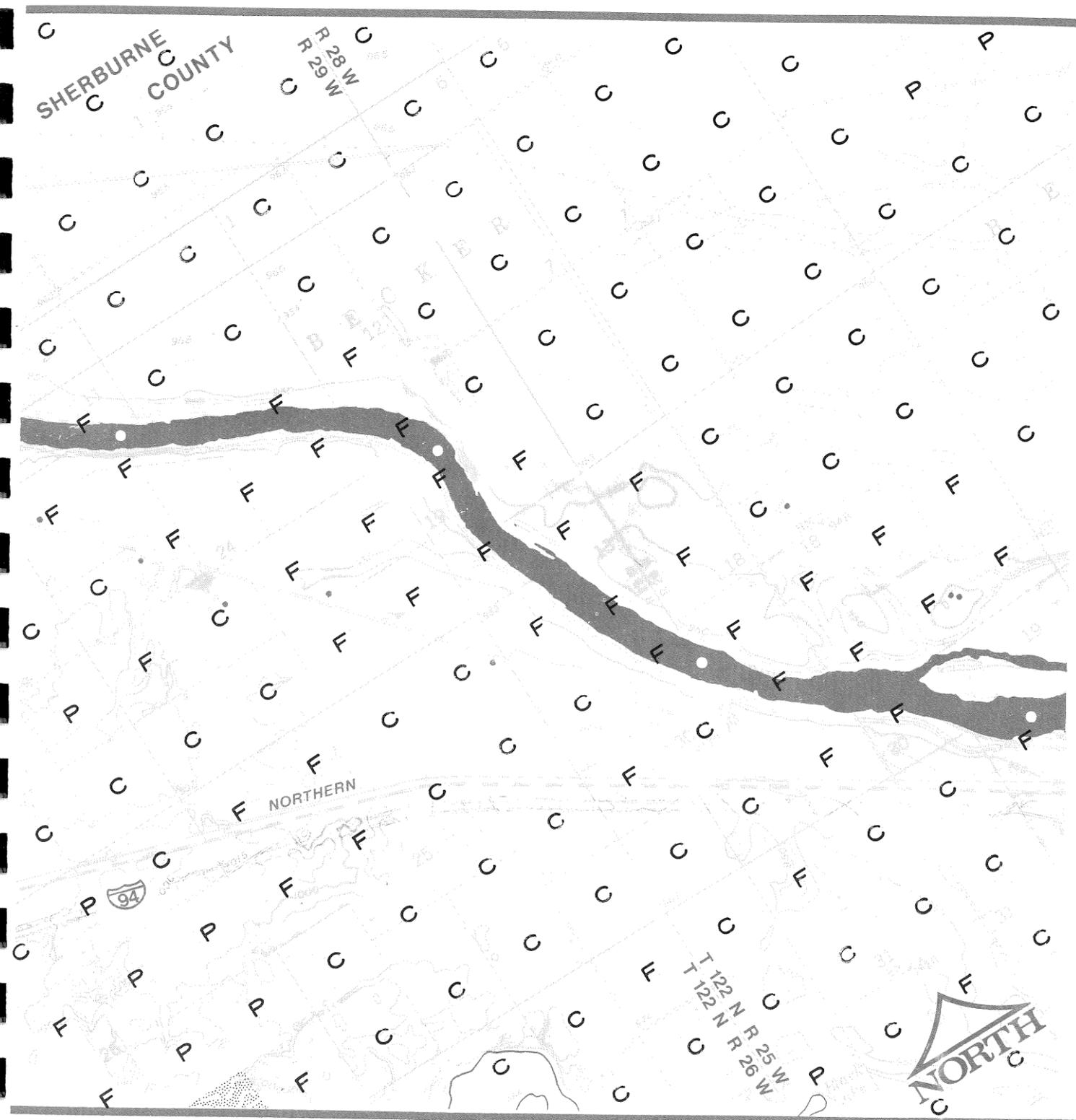
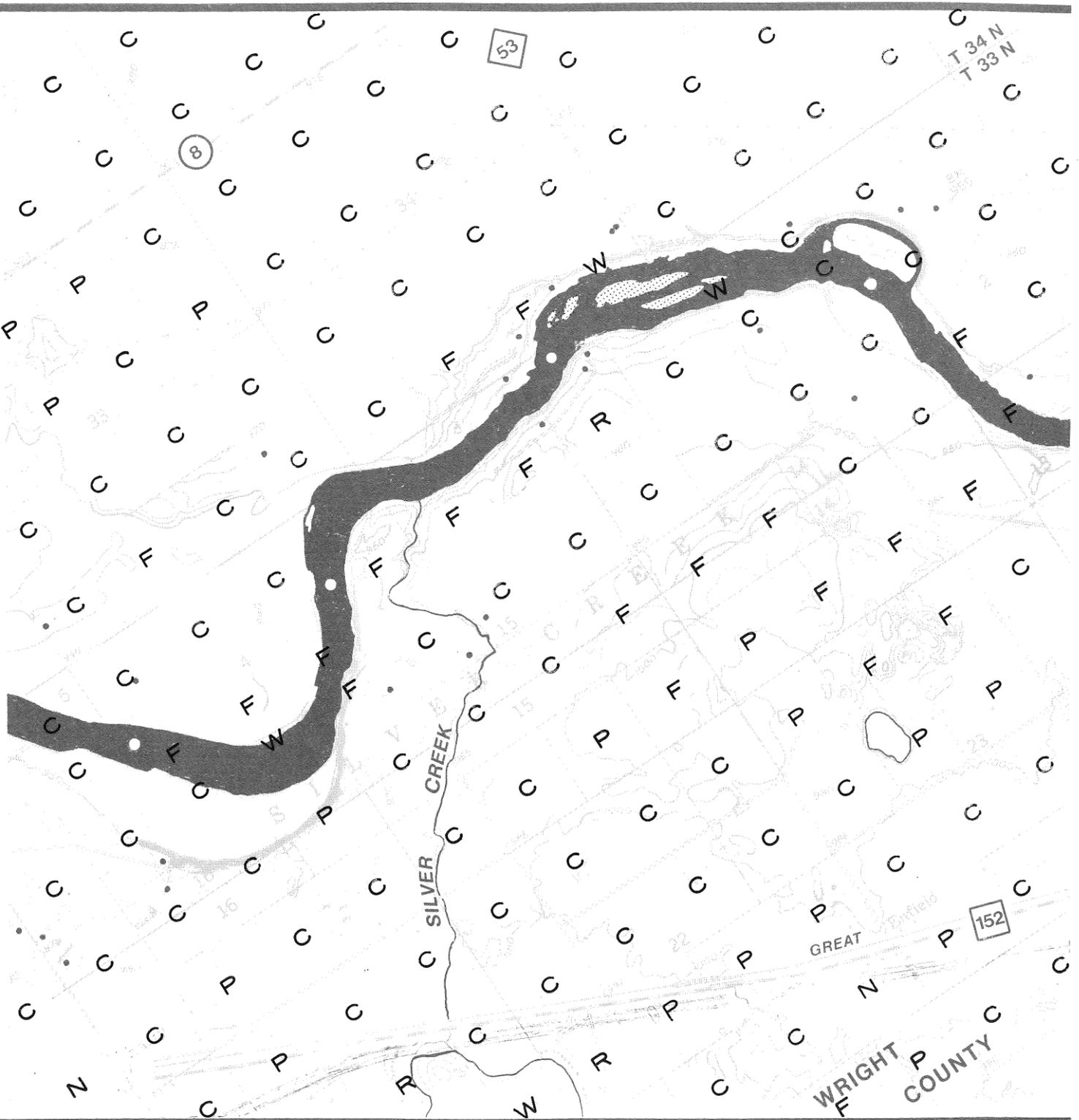
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*by forty as per MLMIS land classification system

OWNERSHIP

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| FEDERAL | MUNICIPAL |
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| COUNTY | SCHOOL DISTRICT |
| PRIVATE | |



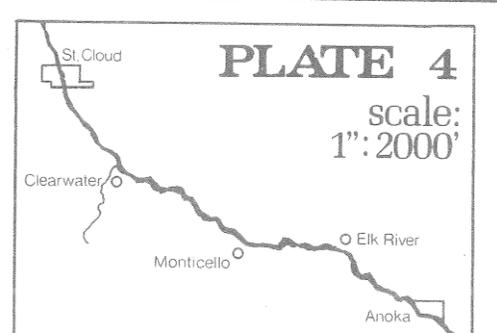


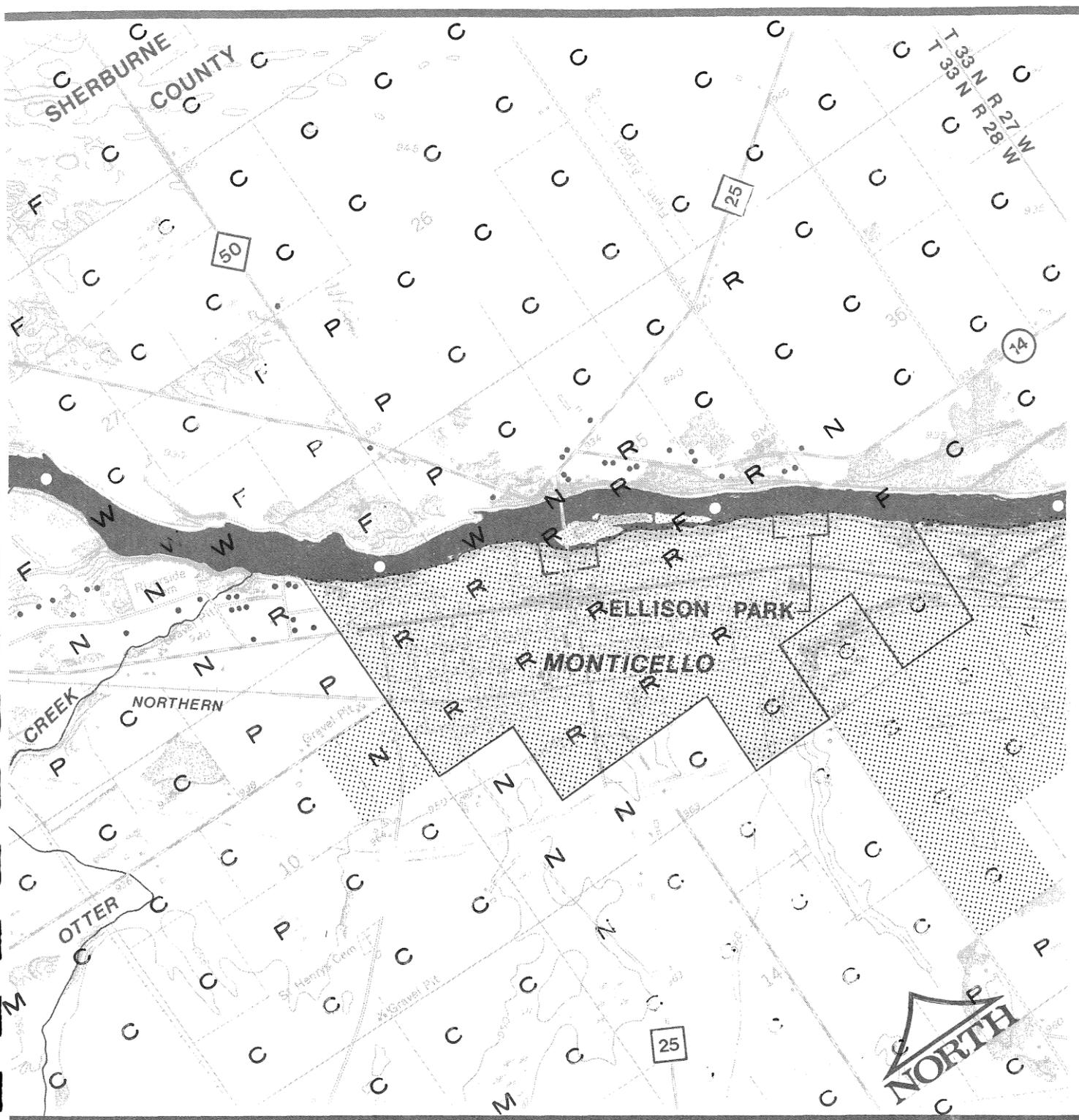
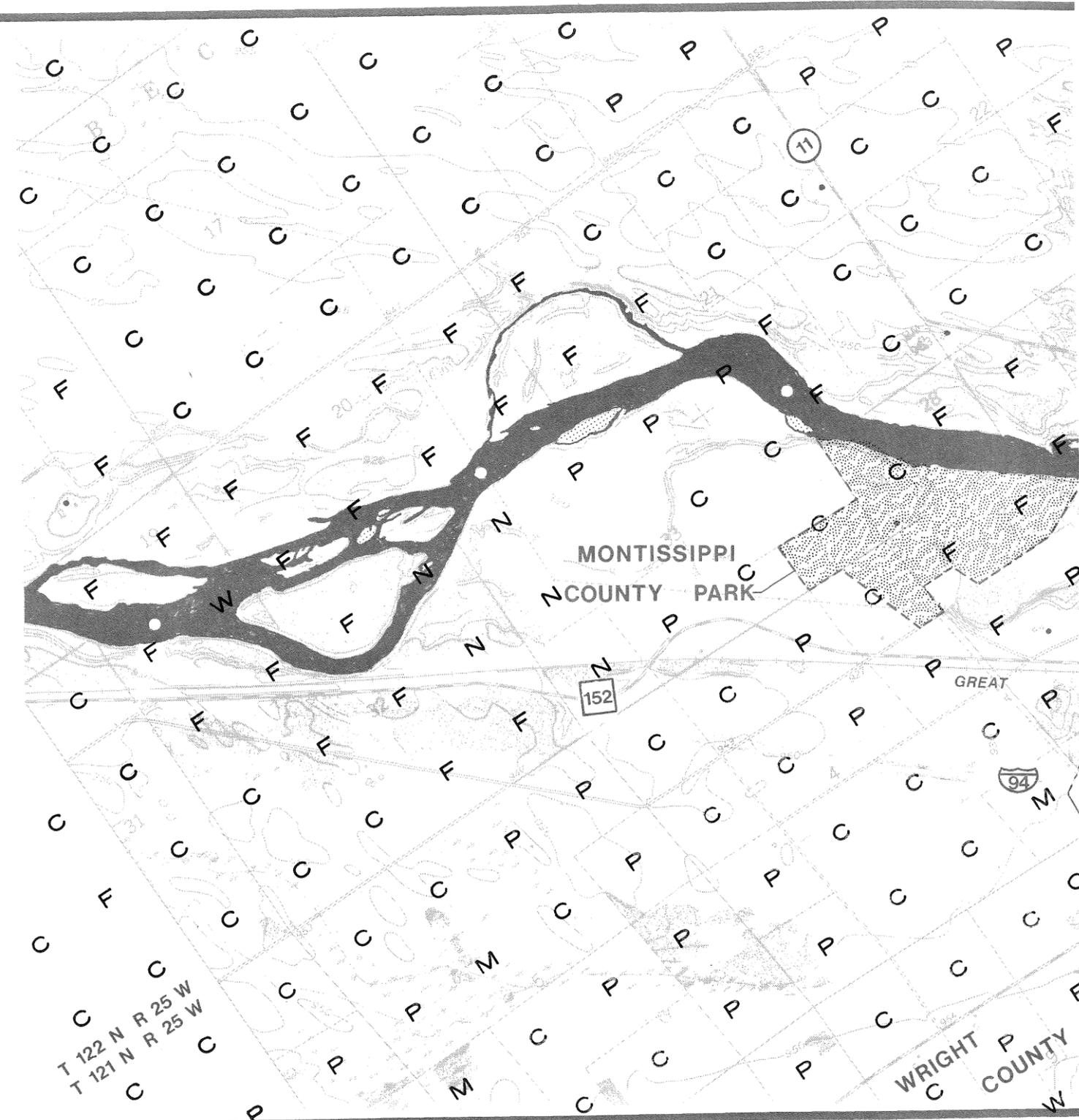
*** LAND USE AND OWNERSHIP**

F - FORESTED	W - WATER
C - CULTIVATED	R - RESIDENTIAL
P - PASTURED	N - URBAN (non-residential)
M - MARSH	E - EXTRACTIVE
	T - TRANSPORTATION

*by forty as per MLMIS land classification system

FEDERAL	MUNICIPAL
STATE	TRUST FUND
COUNTY	SCHOOL DISTRICT
PRIVATE	

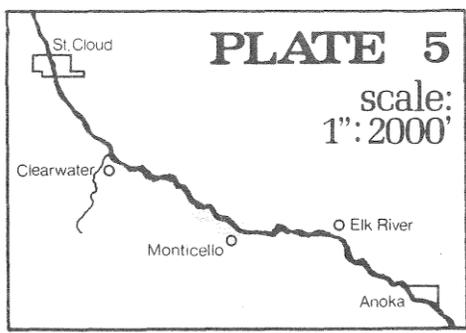


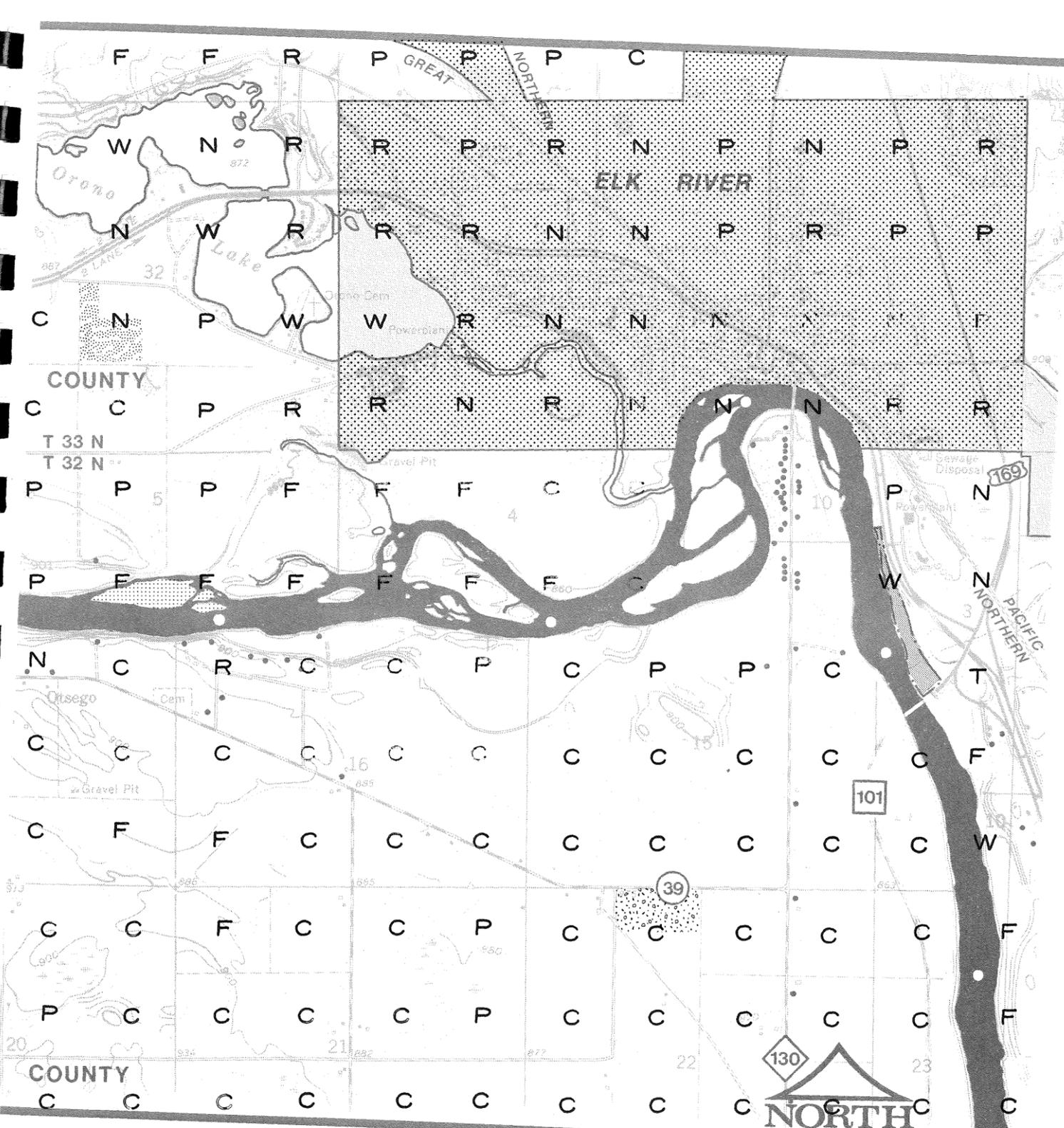
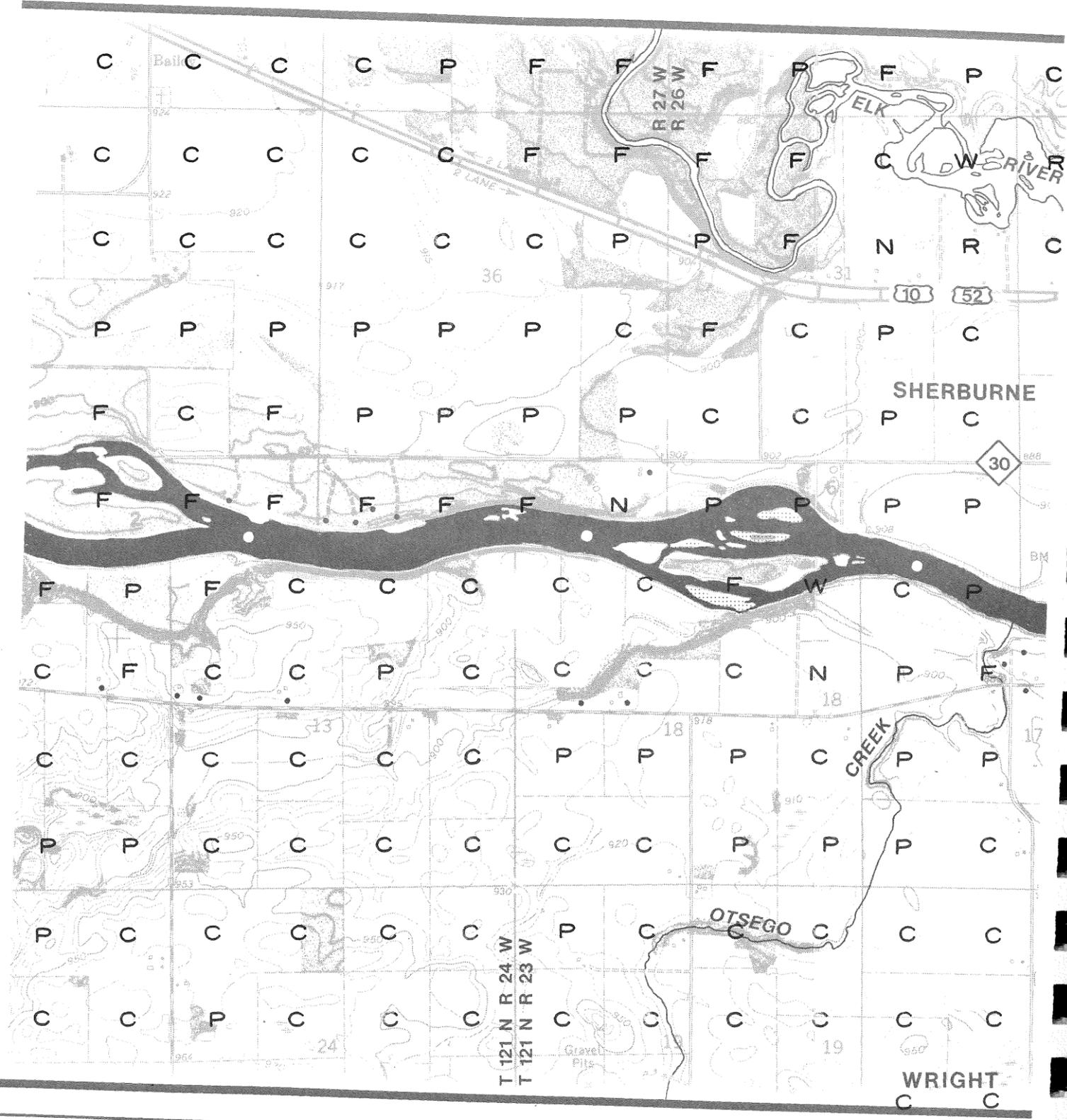


* LAND USE AND OWNERSHIP

<p>F - FORESTED C - CULTIVATED P - PASTURED M - MARSH</p>	<p>W - WATER R - RESIDENTIAL N - URBAN (non-residential) E - EXTRACTIVE T - TRANSPORTATION</p>	<p>FEDERAL STATE COUNTY PRIVATE</p>	<p>MUNICIPAL TRUST FUND SCHOOL DISTRICT</p>
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*by forty as per MLMIS land classification system





*** LAND USE AND**

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 C - CULTIVATED
 P - PASTURED
 M - MARSH

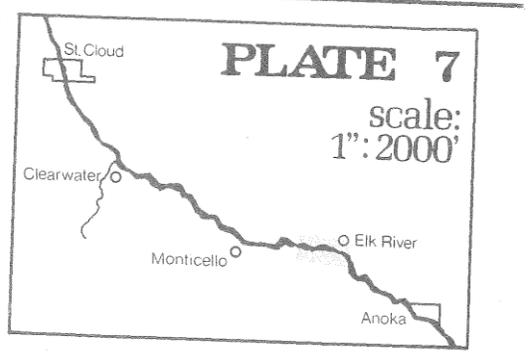
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 R - RESIDENTIAL
 N - URBAN (non-residential)
 E - EXTRACTIVE
 T - TRANSPORTATION

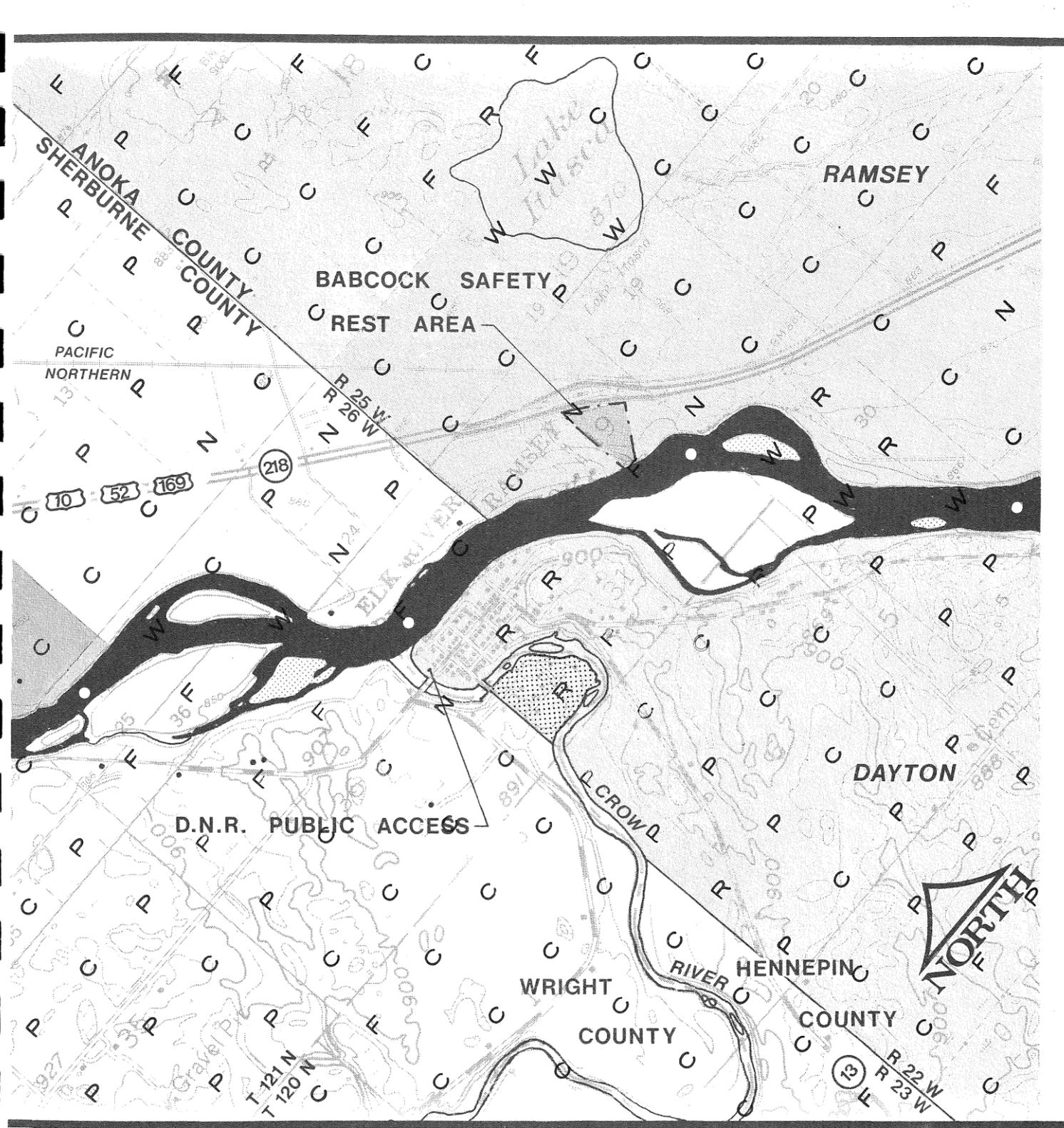
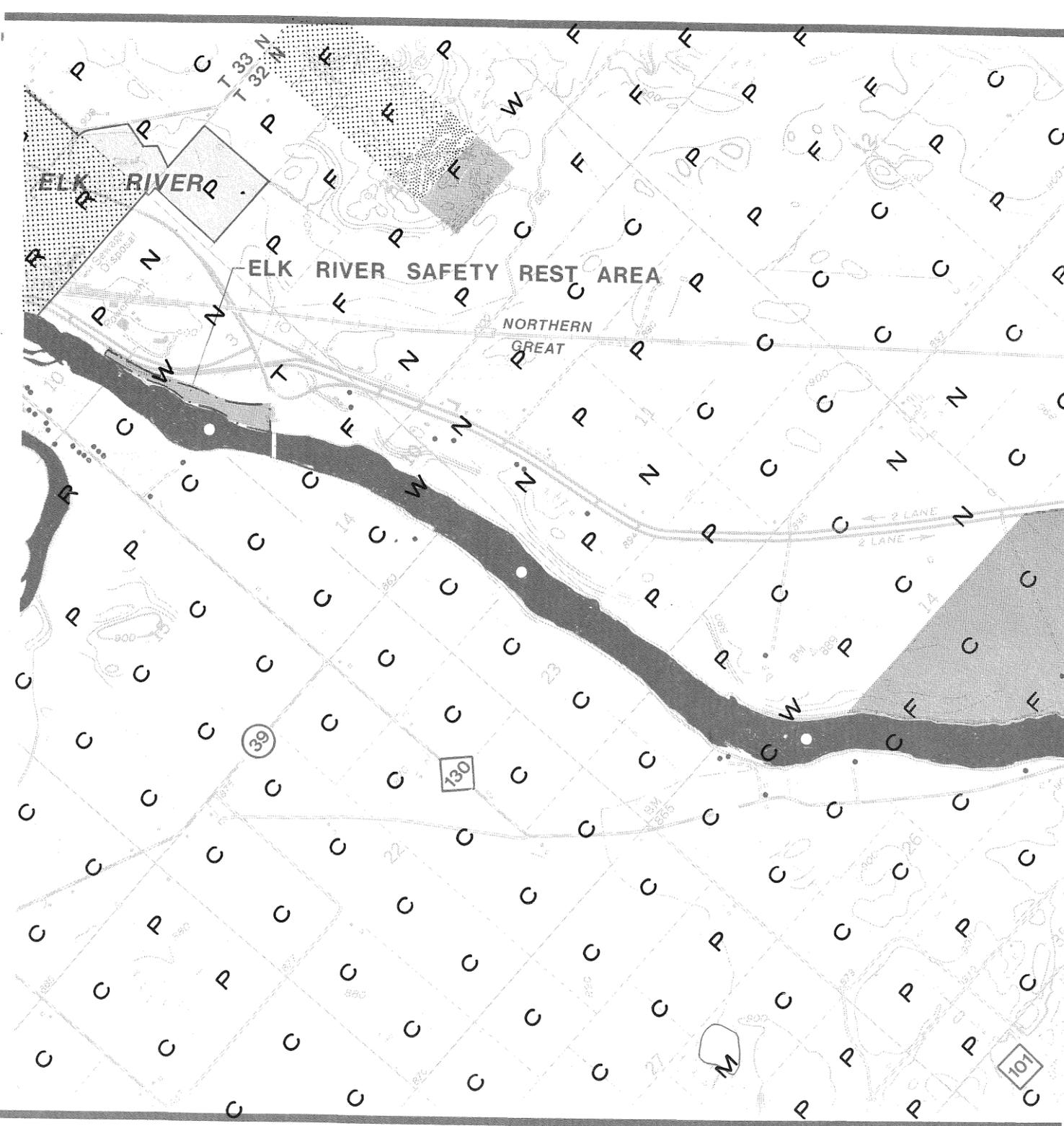
*by forty as per MLMIS land classification system

OWNERSHIP

FEDERAL
 STATE
 COUNTY
 PRIVATE

MUNICIPAL
 TRUST FUND
 SCHOOL DISTRICT





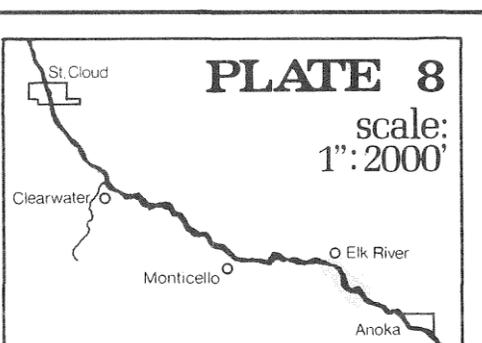
*** LAND USE AND**

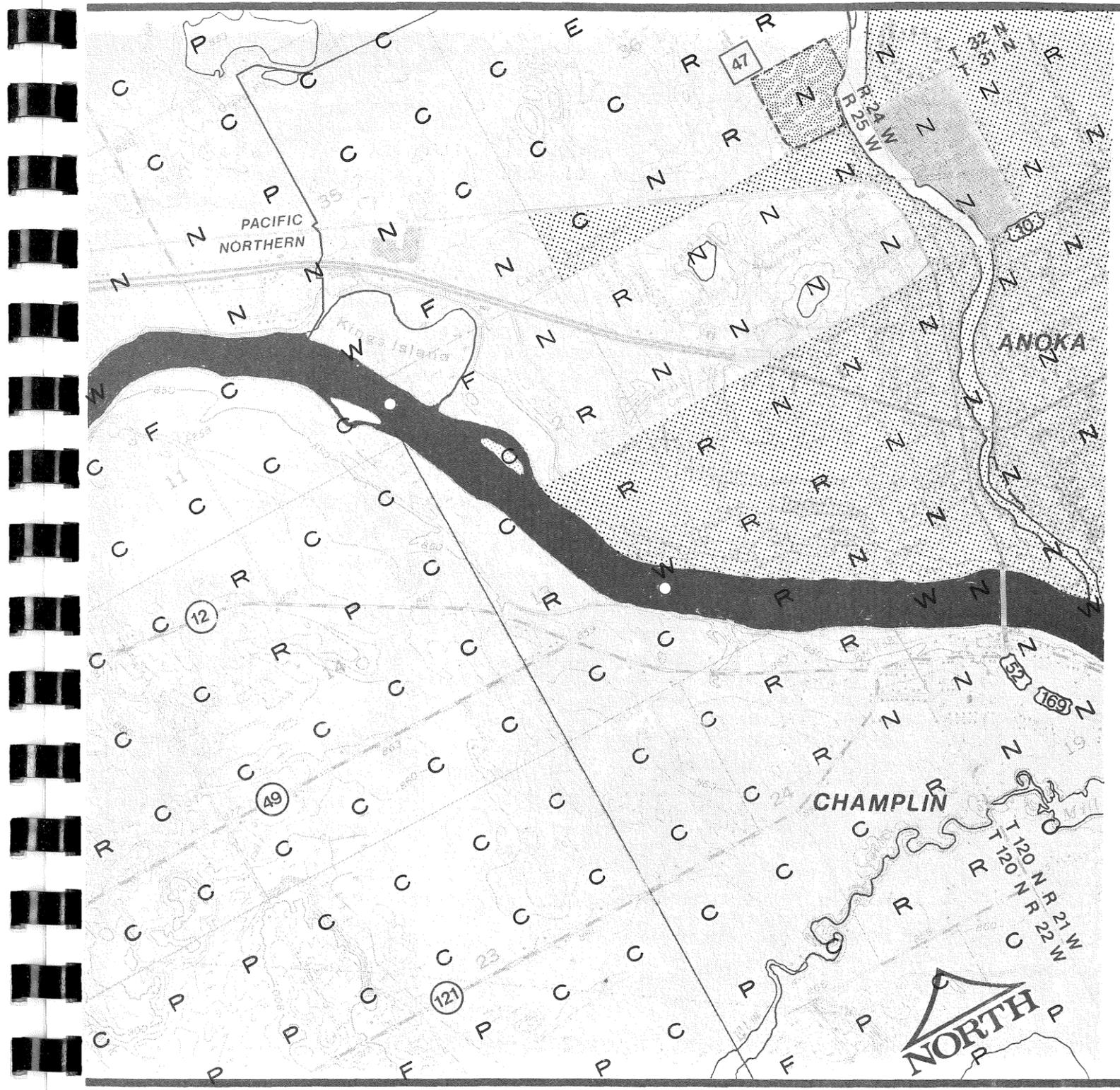
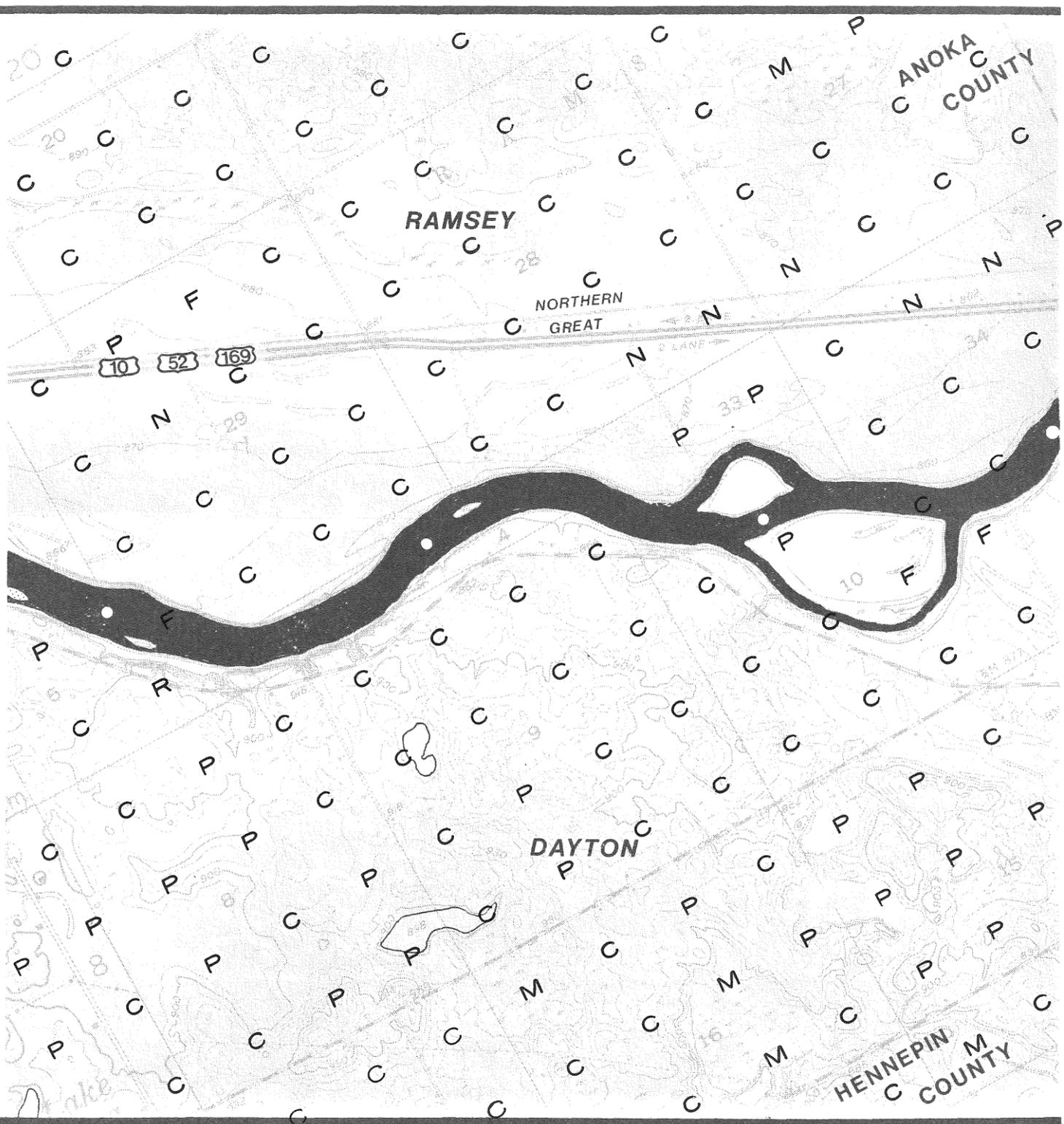
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C - CULTIVATED	R - RESIDENTIAL
P - PASTURED	N - URBAN (non-residential)
M - MARSH	E - EXTRACTIVE
	T - TRANSPORTATION

*by forty as per MLMIS land classification system

OWNERSHIP

FEDERAL	MUNICIPAL
STATE	TRUST FUND
COUNTY	SCHOOL DISTRICT
PRIVATE	

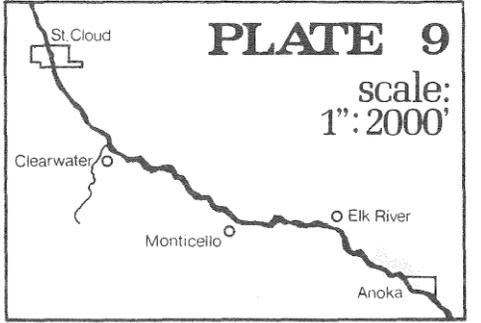




* LAND USE AND OWNERSHIP

<p>F - FORESTED C - CULTIVATED P - PASTURED M - MARSH</p>	<p>W - WATER R - RESIDENTIAL N - URBAN (non-residential) E - EXTRACTIVE T - TRANSPORTATION</p>	<p> FEDERAL STATE COUNTY PRIVATE</p>	<p> MUNICIPAL TRUST FUND SCHOOL DISTRICT</p>
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*by forty as per MLMIS land classification system



RECREATIONAL FEATURES

Although there are no large recreation areas, such as state parks or state forests, along the study portion of the Mississippi River, there are a number of smaller recreation areas. These include a number of municipal parks, one county park, several highway rest areas and public access points, the Talahi area and Beaver Islands environmental education areas, and the Kelley Homestead historical site.

In addition to providing recreational facilities, these areas are also important because they provide the majority of the public accesses to the river. Total access opportunities throughout the study area are limited, but adequate.

The greatest inadequacy is a void of overnight camping facilities for river users. Major areas of public ownership available for recreational and educational use are:

St. Cloud Area

1. Riverside Park

Located along the east bank of the Mississippi River below the Northern States Power Company dam, this beautiful park is administered by the City of St. Cloud. Its 32.38 acres are bounded on the east by Kilian Boulevard, on the west by the Mississippi, on the south by Minnesota Boulevard, and on the north by Michigan Avenue. The land was acquired between 1910 and 1920. Facilities include picnic tables and fire grates, toilets, and trash disposal. An over-look is provided above the dam, and a historical marker describing the Beaver Islands is located on the bluff top. Access to the river is difficult, although canoes can be portaged down a stairway at the south end of the park. No camping is allowed.

2. Talahi Area

The Talahi Area is a 20-acre tract bordering the Mississippi on the east bank, just south of Riverside Park. This area contains a representative sample of three distinct levels of glacial river terraces and the corresponding characteristic vegetation types, plus a pond and a small stretch of floodplain. It is used by St. Cloud State University for classes. The area is open to the public all year during daytime. No camping is allowed and motorized vehicles are prohibited.

3. Beaver Islands

These islands are described in more detail in the "History" section of the management plan. Consisting of over 20 individual islands located downstream from the dam in St. Cloud, this area amounts to about 140 acres. A major value of the islands is the vegetation which exhibits a prime example of floodplain succession. On the larger islands, in particular,

there is an interesting gradation of floodplain vegetation to lowland hardwood forest. Within the maze of channels between the islands are sand and gravel bars, mud flats, and rapids.

Northern States Power Company owns most of the islands, with the remainder owned by the St. Cloud Wildlife Club and the St. Cloud State University Alumni Association. Beaver are still present, although no dams exist. Camping is not available. The college uses the area for field trips.

Clearwater Area

1. Stickney Highway Safety Rest Area

This rest area is located on each side of the Highway #24 bridge on the east bank opposite Clearwater. The north side has picnic tables. On the south side are picnic tables, toilets, water, and canoe and boat-launching facilities. No camping is provided.

2. Clearwater Highway Safety Rest Area

This wayside is located off State Highway #152 at Clearwater. Facilities include picnic tables, toilets and fireplaces. No camping is provided.

3. Municipal Park

The park is located near the mouth of the Clearwater River. There are picnic facilities. No camping is provided.

Monticello Area

1. Montissippi County Park

This county park is located on the west bank between the N.S.P. nuclear power plant and Monticello. Picnic facilities are available. There is some frontage on the river.

2. Monticello Municipal Park

Located on the west bank of both sides of the Highway #35 bridge at Monticello. This park offers picnic and toilet facilities. Access to the river is fair for canoes, but poor for larger boats because of steep banks and the shallow water.

3. Ellison Park - Monticello

Ellison Park is located on the west bank near the south end of Monticello. Facilities include a boat-launching ramp, toilets, and picnic facilities.

Elk River Area

1. State Highway Department Safety Rest Area

On entering Elk River on U.S. Highway #10 from the south, this rest area

is found on the west side of the road along the Mississippi. Facilities include picnic tables, fireplaces, toilets and water. An information board is provided and carry-in type canoe access is available. No over-night camping is provided.

2. Kelley Homestead

Three miles east of Elk River off U.S. Highway #10 is a State Highway Department Safety Rest Area consisting of a historical marker related to the adjacent Kelley Homestead.

The entrance to the 190-acre homestead is located near this marker off Highway #10. This farm, administered by the Minnesota Historical Society, commemorates Oliver H. Kelley, founder of the National Grange. It also preserves many relic tools, and furnishings of pioneer days in the restored Kelley House and early farm implements. It is open to the public from May through October. Several hundred feet of river frontage is included within the grounds. No camping is allowed.



Dayton Area

1. Department of Natural Resources Public Access

Located at the confluence of the Mississippi and Crow Rivers at Dayton; it is administered by the Division of Enforcement and Field Services, Department of Natural Resources. The 2.3 acre area includes a parking lot, boat launching ramps, and trash disposal.

2. State Highway Department Safety Rest Area

Slightly downstream from Dayton and on the east bank of the river is a large rest area administered by the Highway Department. Access is off U. S. Highway #10, or by river. Facilities include picnic tables, toilets, telephones, fireplaces, and water. A historic marker describing the Red River Ox-Cart Trail is located here, in addition to other general information. Carry-in type canoe launching is available. Camping is prohibited.

Anoka Area

1. A small park with picnic tables is located near the sewage disposal facility at the mouth of the Rum River. This is just outside the Land Use District boundaries.

2. Champlin Public Access

The City of Champlin has provided a 3.6 acre public access near the mouth of Elm Creek on the west bank. Facilities include picnic tables, parking, boat launching, fireplaces, and trash barrels. No overnight camping is provided.

ISLANDS

Some of the most obvious and important resources of the Mississippi River between St. Cloud and Anoka are the many islands. There are, in fact, about one hundred islands ranging in size from a fraction of an acre to over one hundred acres. One of the larger islands, Grand Island, is over a mile long.

In addition to the impressive number and size of these islands, their significance is made more evident by the many natural, scenic, historical and scientific values which they possess. Although a few islands have been used for pasture, most are heavily wooded and relatively undisturbed. The presence of this natural vegetation is a tremendous addition to the scenic aspect of the river valley. Some preliminary surveys of selected islands have led to the identification of some plant species considered relatively rare for this portion of the state. The islands are also important in that they contain excellent examples of flood plain vegetation which may be little changed from that which existed at the time of the early explorers. Finally,

several of the islands of early explorers campsites, trading posts, lumbering activities, and as navigational landmarks. Because of these values, and the obvious visual impact of the islands, they are some of the more sensitive land areas in or along the river.

The largest single owner of islands on this portion of the river is the U.S. Government, which administers the islands through the Federal Bureau of Land Management (BLM). Numerous other islands are owned by Northern States Power Company (NSP) and St. Cloud State University and Alumni Association. The remaining islands are primarily privately owned.

The Bureau of Land Management has completed an inventory of its islands within the state. This inventory listed those islands administered by BLM in each county and the acreage of each. The following table shows a breakdown of BLM islands in the Mississippi River, by county, between St. Cloud and Anoka.

<u>County</u>	<u>Number of Islands</u>	<u>Acreage</u>
Stearns	10	119.40
Sherburne	25	104.10
Wright	13	89.50
Anoka	2	14.00
Hennepin	1	2.20
	<u>51</u>	<u>329.20</u>

There is legal access to all of the BLM islands. Though no facilities have been provided, some have been used for recreational camping and picnicking by canoeists or fishermen.

The 51 islands administered by the Bureau of Land Management are identified and described in the table below.

Township	Range	Section	BLM Inventory No.	Size (acres)
STEARNS COUNTY				
T 124 N	R 28 W	S 25	01	1.50
T 123 N	R 28 W	S 1	01	4.00
T 123 N	R 27 W	S 17	01	8.00
T 123 N	R 27 W	S 20	01	2.00
T 123 N	R 27 W	S 20	02	15.00
T 123 N	R 27 W	S 20	03	.10
T 123 N	R 27 W	S 20	04	.30
T 123 N	R 27 W	S 21	01	1.50
T 123 N	R 27 W	S 21	02	75.00
T 123 N	R 27 W	S 26	01	12.00
Stearns Total				<u>119.40</u>

SHERBURNE COUNTY

Township	Range	Section	BLM Inventory No.	Size (acres)
T 35 N	R 31 W	S 12	01	.50
T 35 N	R 31 W	S 12	02	2.00
T 35 N	R 31 W	S 12	03	2.20
T 35 N	R 31 W	S 12	04	7.00
T 35 N	R 31 W	S 12	05	3.00
T 35 N	R 31 W	S 12	06	5.00
T 35 N	R 31 W	S 12	07	4.50
T 35 N	R 31 W	S 13	01	10.00
T 35 N	R 31 W	S 13	02	9.00
T 35 N	R 31 W	S 24	01	2.50
T 35 N	R 31 W	S 25	01	7.00
T 35 N	R 31 W	S 25	02	12.00
T 34 N	R 30 W	S 8	01	5.00
T 34 N	R 30 W	S 16	01	3.00
T 34 N	R 29 W	S 32	01	1.00
T 34 N	R 29 W	S 34	01	.60
T 34 N	R 29 W	S 34	02	5.00
T 33 N	R 28 W	S 20	01	4.50
T 33 N	R 28 W	S 20	02	1.00
T 33 N	R 28 W	S 20	03	2.00
T 32 N	R 26 W	S 6	01	.80
T 32 N	R 26 W	S 6	02	2.00
T 32 N	R 26 W	S 6	03	2.00
T 32 N	R 26 W	S 5	01	12.00
T 32 N	R 26 W	S 5	02	.50
Sherburne Total				104.10

WRIGHT COUNTY

T 122 N	R 26 W	S 14	01	4.00
T 122 N	R 26 W	S 14	02	.50
T 122 N	R 25 W	S 33	01	5.00
T 122 N	R 25 W	S 33	02	2.50
T 121 N	R 25 W	S 11	01	10.00
T 121 N	R 24 W	S 9	01	.50
T 121 N	R 24 W	S 9	02	4.50
T 121 N	R 24 W	S 9	03	5.50
T 121 N	R 24 W	S 9	04	6.00
T 121 N	R 24 W	S 9	05	12.00
T 121 N	R 23 W	S 18	01	4.00
T 121 N	R 23 W	S 15	01	25.00
T 121 N	R 23 W	S 36	01	10.00
Wright Total				89.50

ANOKA COUNTY

Township	Range	Section	BLM Inventory No.	Size (acres)
T 32 N	R 25 W	S 30	01	10.00
T 31 N	R 25 W	S 2	01	4.00
Anoka Total				14.00

HENNEPIN COUNTY

T 120 N	R 22 W	S 5	01	2.20
Hennepin Total				2.20

Total 51 Islands 329.20 acres

ACCESS

Availability of access facilities to the river is an important factor in determining the nature and amount of public use. In analyzing the present and future impact of access sites, consideration must be given to the size and type of watercraft that can be accommodated, spacing of access points along the river, location of the facilities in regard to major transportation routes, the amount of public use which can be supported by each access, the portion of the river served by each access, and several other factors.

In reviewing these and other considerations, it appears that present access facilities are sufficient to adequately accommodate river users. The recreation management maps show existing public access between St. Cloud and Anoka. The following is a brief description of these facilities:

1. Riverside Park - St. Cloud

Access to the river from this park, located on the east bank below the dam, is difficult for canoes and almost impossible for larger boats. Canoes can be portaged down a stairway at the south end of the park. The portion of the river several miles downstream from St. Cloud is not ideal for motorized craft because of shallow channels between islands and numerous riffles. For this reason, availability of access for larger craft is not considered crucial.

2. Stickney Highway Safety Rest Area - Clearwater

This rest area provides excellent access to the river for both motorized craft and canoes. Facilities include a paved boat-launching ramp and parking lot.

3. Montissippi County Park - North of Monticello

Though largely undeveloped at present, this park does provide access for canoeists and boaters.

4. Municipal Park - Monticello at Highway #25

Access to the river is fair for canoes, but poor for larger boats because of steep banks and shallow water.

5. Ellison Park - Monticello

Excellent access to the river is provided at this park near the south end of the town. A paved boat-launching ramp is available, although parking is somewhat limited.

6. State Highway Department Safety Rest Area - Elk River

This rest area, south of town off U.S. Highway #10, provides excellent access for canoes and boats, along with ample parking.

7. Department of Natural Resources Public Access - Dayton

This 2.3 acre facility provides a boat-launching ramp, easy canoe access, and adequate parking.

8. State Highway Department Safety Rest Area - North of Anoka

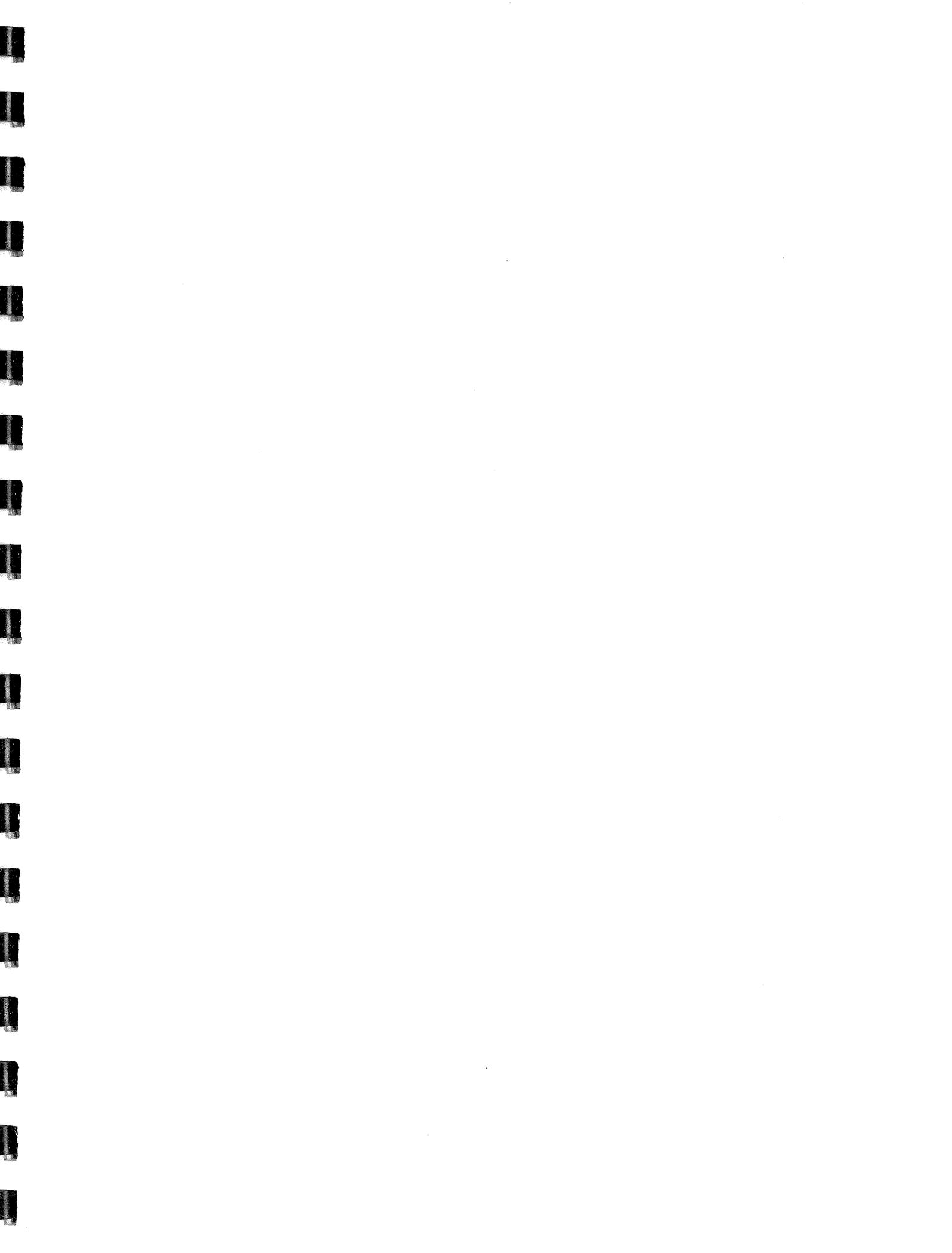
This rest area, off U.S. Highway #10 on the east bank, offers carry-in type canoe access. Boat launching is difficult as no ramps are provided.

9. Municipal Park and Access - Champlin

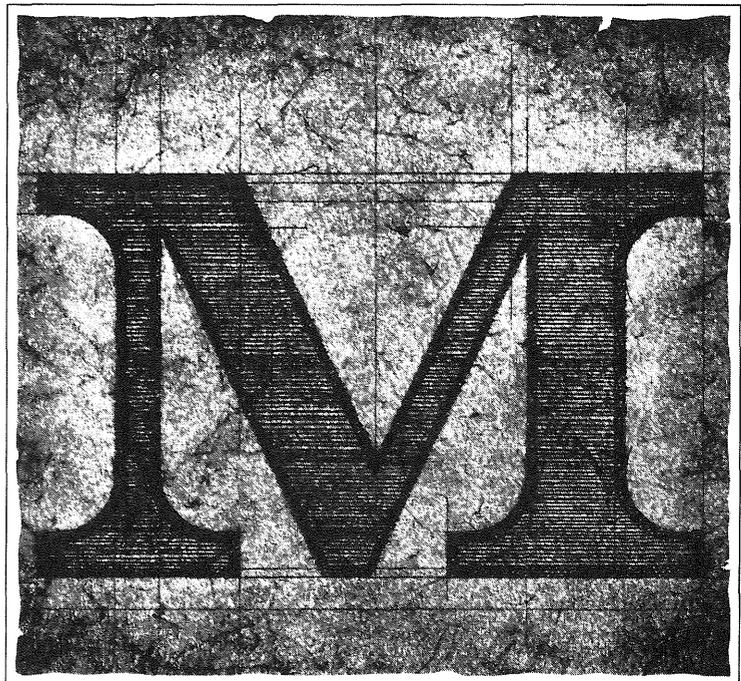
This park and public access is located just downstream from the study area, but is important for motorized craft desiring to travel upstream. Boat-launching ramps and a parking area are provided.

PORTAGES

No portages are necessary within the proposed management area. However, those users entering the area from upstream must portage the Northern States Power Company dam at St. Cloud. The portage is on the west side of the river, or on the right bank when traveling downstream. Though there are several mild rapids scattered along the route, none are of sufficient difficulty as to require a portage.



APPENDIX



EXISTING LAND AND WATER USE CONTROLS

Water Safety Act

The Water Safety Act as amended, and another law (M.S. Section 378.32), convey water surface zoning authority to the Commissioner of Natural Resources and local units of government, respectively. Water surface use controls may regulate the type and size of watercraft allowed on particular water bodies, the type and horsepower of motors used on watercraft, times and areas in which watercraft may operate, and speeds at which watercraft may operate. Such controls are intended to resolve conflicts between various types of users, promote safety for persons and property. The Commissioner has authority to control water surface use under the Wild, Scenic, and Recreational Rivers System Regulations, such control will not be exercised as part of the management plan. If such regulations are deemed necessary in the future, they may be promulgated as an amendment to the management plan.

Floodplain Management Act

The Floodplain Management Act of 1969 is legislation that will have an effect on the management of lands adjacent to the Mississippi River. Regulations under this Act are designed to achieve two general objectives: (1) restrict uses which are dangerous to health, safety or property in times of flooding or which cause increases in flood heights and velocities; and (2) require that uses vulnerable to flooding, including public facilities which serve such uses, be protected against flood damage at the time of initial construction. At the present time, state approved floodplain management rules and regulations have not been applied to the Mississippi River along Stearns, Sherburne, and Wright Counties. However, Sherburne and Wright Counties do have floodplain land use districts along the Mississippi River as part of their county-wide comprehensive zoning ordinances. Affected counties and municipalities will be required to adopt floodplain ordinances meeting state approval as more data becomes available through the National Flood Insurance Program. Recent Federal legislation, the Flood Disaster Protection Act of 1973 (P.L. 93-234) should expedite the adoption of land use controls in these counties because such controls are a requirement of the National Flood Insurance Program.

Shoreland Management Act

The Shoreland Management Act of 1969 required all counties, except Hennepin and Ramsey, to adopt land use control ordinances for the unincorporated shorelands of public waters. The three possible shoreland classifications for public waters are as either Natural Environment, Recreational Development, or General Development. Land use control ordinances are provided for each of these three possible classifications. These minimum standards or land use controls regulate: (1) type and placement of sanitary and waste disposal facilities (2) size and length of water frontage lots suitable for building sites (3) placement of structures in relation to shorelines and roads (4) alteration and preservation of the natural landscape (5) subdivision of shoreland areas.

At the present time, the Mississippi River is classified General Development along Stearns, Sherburne, and Wright Counties. This classification is the least restrictive of the three possible classifications.

Municipal Shoreland Act

The townships adjoining the Mississippi River in Anoka County have become incorporated, and as such, are not included within the jurisdiction of the Anoka County Shoreland Management Ordinance. The scope of Shoreland Management Program was expanded in 1973 (M.S.A. Chapter 379), to include shoreland within incorporated areas. The Municipal Shoreland Act provides for the establishment of minimum statewide shoreland standards and criteria for incorporated areas. The municipalities that could be included in the scope of the Municipal Shoreland Act would be St. Cloud, Clearwater, Monticello, Elk River, Dayton, and Anoka.

Shoreland Management Controls for the Mississippi River

Shoreland zoning legislation that applies to rivers as well as lakes was enacted by the 1969 Minnesota Legislature. Under this law, the Department of Natural Resources prepared model zoning ordinances to act as guides for county ordinances which were to be adopted by July 1, 1972. These ordinances set minimum requirements as to lot size and width, water frontage, building setback, and sanitary requirements.

This segment of the Mississippi River was initially classified General Development by the Department of Natural Resources. The counties adjoining this river were thus required to amend or adopt ordinances to meet these minimum zoning requirements:

- Lot Size: At least 20,000 square feet in area.
 - At least 100 feet in width at the building line.
 - At least 100 feet in width at the water line for lots abutting a public water.
- Setback: At least 75 feet from the normal high water mark.
- Sewage Disposal System: The septic tank and soil absorption systems shall be setback from the normal high water at least 50 feet.

In addition to these specific requirements for general development rivers, other requirements such as grading and filling provisions, subdivision plotting variance procedures, etc., were also required to be adopted by the counties.

The general development classification is the least restrictive of the shoreland zoning classifications. The detailed data required to justifiably designate portions of rivers and streams into more restrictive categories was not available. This was the rationale for designating the Mississippi River as General Development. However, because the state does not have a complete stream inventory, the DNR classified all streams as general development (except officially-designated trout streams and the Upper St. Croix River).

ANOKA COUNTY

At the present time, the jurisdiction of county shoreland management applies only to unincorporated areas. For Anoka County, the last remaining unincorporated township along the Mississippi River (Ramsey Township), was incorporated on November 12, 1974.

The Mississippi River had been classified as a Recreational Development River along Ramsey Township with a Residential-Recreation land use district. With this incorporation, however, all of Anoka County adjacent to the Mississippi River will have become incorporated. The county Shoreland Management Program will,

therefore, not apply to this segment of the river.

In the future, incorporated local units of government adjoining public waters will be required to amend or adopt ordinances to comply with the rules and regulations of the municipal Shoreland Management Act when promulgated by the Department of Natural Resources.

SHERBURNE COUNTY

All of the Mississippi River along Sherburne County has been zoned into a Floodplain Land Use District. The delineations for this floodplain district (F-2) can be noted on the county zoning map. A more restrictive district, that of a Floodway District (F-1), has not been delineated.

The purpose of the F-2 Floodplain district is to establish certain minimum controls on the floodplains to insure minimum of public expenditure and provide a minimum level of protection for life and property. The following uses are permitted in the F-2 Floodplain District:

1. Uses permitted in any F-1 Floodway District.
 - a. General Agricultural Uses such as farming, grazing, forestry, nurseries, etc.
 - b. Industrial - Commercial Uses such as loading, parking, and such open area uses.
 - c. Public and Private Recreational Uses such as swimming, golf, picnic areas, provided that so structures shall be required.
 - d. Utility facilities such as dams, power plants, transmission and pipe lines, etc.
2. Temporary uses permitted in the adjacent non-flood zone, subject to being floodproofed.

Most of the land adjoining the Floodplain Land Use District in Sherburne County is classified as an A-1 Conservation and Agriculture District. The exceptions to this are the General and Suburban Residence classifications across from Monticello and next to Elk River, respectively. A General Industry classification land use district adjoins the Floodplain District at the location of Becker. Just below the incorporated limits of St. Cloud, there is a General Agriculture Land Use District. The rest of the land use district adjoining the Floodplain District is in the A-1 Conservation and Agriculture District, which requires five-acre lots. For the General Agriculture District, the lot requirement is two and one-half acres. For the A-1 Conservation and Agriculture District, the building line width requirement is 400 feet, and the minimum depth is also 400 feet.

STEARNS COUNTY

Most of the Mississippi River along Stearns County is classified as a special protection district under the County Shoreland Management Zoning Ordinance. The provisions of this district are as follows:

2.3 SPECIAL PROTECTION DISTRICT

- 2.31 Purpose: To manage areas unsuitable for development because of wet soils, steep slopes, or large areas of exposed bedrock; and to manage areas of unique natural and biological characteristics in accordance with compatible uses.

2.32 Permitted Uses:

- (a) All general agricultural pasture and minimum tillage cropland uses; except that no wetlands shall be drained to facilitate cultivation of shoreland areas within specified distances of lakes or streams depending upon topography.
- (b) Forestry
- (c) Parks, waysides and golf courses which do not maintain overnight camping facilities.
- (d) Nature areas, hiking and riding trails, wildlife preserves, and designated official wetland areas.
- (e) Designated historical sites.
- (f) The use of any tract for farm or residential purposes at the adoption of this Ordinance shall be considered permitted uses for that tract notwithstanding zoning classification for such tract so as to authorize new construction or alterations and additions to existing structures upon proper permit.

However, permits shall not be issued for any new structure to be used for human occupancy in a Special Protection District unless the tract has been rezoned so as to allow residential occupancy.

- (g) The use of any tract, 40 acres or larger in size or a Government lot, for a single family residential homesite shall be considered a permitted use notwithstanding zoning classification provided all other provisions of this Ordinance can be met. (4-16-74)
- (h) Recreational camping where all other provisions of this Ordinance can be met, except that recreational camping areas must be rezoned to permit such use and meet the conditional use provisions with regard to the Ordinance Section of recreational camping areas.

2.33 Conditional Uses:

- (a) All approved aerial or underground utility line crossings such as electrical, telephone, telegraph, or gas lines which cannot be reasonably located in other than a special protection district.
- (b) Non-residential structures used solely in conjunction with raising wild animals or fish provided the structures are of a design approved by the county board of adjustment as being compatible with other allowable uses of the district.
- (c) Cluster development as provided in Section 5.5 of the Shoreland Ordinance.

It should be noted that the Department of Natural Resources' approval is required for a proposed cluster development.

Smaller segments of the Shoreland Land Use Districts along the Mississippi River for Stearns County have been classified into Residential-Recreation Districts.

The land use zoning districts have been delineated on individual township maps. The townships that abut the Mississippi River are St. Cloud, St. Augusta, and Lyden Townships. LeSauk and Brockway Townships in Stearns County abut the Mississippi River north of St. Cloud, and as such, are not included within this review, although the zoning maps for these townships are also available for later reference.

Along St. Cloud Township, most of the Mississippi River has been delineated into primarily special protection land use districts. However, there is a residential recreation district, and also a general use district.

All of the Mississippi River along Augusta Creek Township has been placed into the special protection district. The designated tributary of St. Augusta Creek (named Johnson Creek on the zoning map), has been classified into a special protection district within 200 feet of this creek. The remaining land use district along this creek beyond the 200-foot setback, has been placed into the residential-recreation land use district classification.

WRIGHT COUNTY

A general Development classification has been assigned to the Mississippi River along Wright County. The land use district adjoining the Mississippi River is that of a floodplain district, as shown on the county zoning map.

The profiles and flood data used in defining the floodplain boundary are from water surface profiles of the Mississippi River, a USGS map of Flood Prone Areas, and USGS topographic maps of the county.

The flood-prone areas shown on the zoning map have a one in one-hundred chance on the average of being flooded during any year. Although these areas have been delineated without consideration of present or future flood-control storage that may reduce flood levels, they are at present the best information available for basing these land use decisions.

The purpose of zoning these flood-prone areas as floodplain districts is to show County Planners, Administrators and others concerned with future land developments, that these areas are subject to flooding. Because of this, only general agricultural uses are permitted in this Flood Plain District. Proposed uses that require a conditional use permit before being allowed are industrial-commercial uses, public and private recreational uses, and utility facilities.

Wright County has county-wide zoning, and as such, has differing land use districts adjacent to the Floodplain District. The major portion of the adjoining land use district is in the General Agricultural District (A-2). Smaller segments include the General Industry Districts adjacent to incorporated areas, and several Suburban Residence Districts.

The R-2 District shown on the present county zoning map, just east of Otsego along the Mississippi River, is now an R-1 land use district. This change is from the last amendment of the county ordinance, which makes the R-2 district no longer existent.

RELATED AGENCIES

There are perhaps more agencies, organizations, commissions, and other various groups concerned with the Mississippi River than any other river in the state. These various agencies are involved in such areas as planning, protection, study, and management of the river and its related resources. Of these agencies, there are several which are particularly important relative to the future of the river and adjacent lands. A brief summary of each major organization and its authorities follows.

Federal

1. Upper Mississippi River Basin Commission

The UMRBC, created in 1972, has four basic responsibilities:

- a) Principal agency for coordination of federal, state, interstate, local, and non-governmental plans for development of water and related land resources in the Upper Mississippi River Basin.
- b) Prepare and maintain a comprehensive, coordinated joint plan for federal, state, interstate, local and non-governmental development of water and related land resources, including an evaluation of all reasonable alternative means of achieving optimum development of such resources in the basin.
- c) Recommend long-range schedules of priorities for the collection and analysis of basic data for investigation, planning and construction of various projects.
- d) Undertake such studies of water and related land resources problems in the river basin as are necessary for the coordinated joint plan described above.

A major project, related to the portion of the study area of the river between Dayton and Anoka, is the Twin Cities Metropolitan Area Level B Study. The U.M.R.B.C. is responsible for management of this study. A Level B plan is a reconnaissance-level evaluation of water and land resources for a selected area. It focuses on an areas resource needs, problems and desires for the next 15 - 25 years. Completion of this plan is tentatively scheduled for October of 1976.

2. U. S. Army Corps of Engineers

The Corps of Engineers' authority in relation to the Mississippi River is confined to two basic catagories:

- a. Flood control activities.
- b. Development and improvement of navigable waterways.

Of these two authorities, only flood control activities are relevant to the portion of the river between St. Cloud and Anoka. Since the head of navigation is considered to be at the Coon Rapids Dam, downstream from Anoka, the Corps' involvement in waterway development or improvement above that point has been minimal. Some early attempts to maintain a waterway between Anoka and St. Cloud are described in the "History" section.

3. Bureau of Outdoor Recreation, U. S. Department of Interior

The Bureau of Outdoor Recreation (B.O.R.) is responsible for overall administration of the study process for those rivers designated for possible inclusion in the National Wild and Scenic Rivers System. The B.O.R. will conduct field work and research on the recently designated study portion of the Upper Mississippi River from Lake Itasca to Anoka. In addition to preparing such studies, the B.O.R., in cooperation with other federal and state agencies, will prepare a final report and a number of Environmental Impact Statements relative to the proposed designation of the river in the National system.

The B.O.R. is also the agency responsible for administration of the Land and Water Conservation Fund (LAWCON). This fund was established in 1965 to assist states and their political subdivisions in providing urgently needed public outdoor recreation areas and facilities. The B.O.R. shares 50% of the cost of planning, acquisition and development on projects which relate to outdoor recreation. Acquisition of lesser interests, such as scenic easements, are eligible for LAWCON Funding when such acquisition will insure a desired public use of the property.

4. Environmental Protection Agency (E.P.A.)

This agency, which deals with a wide range of environmental problems, would be involved most directly in the Mississippi River in the area of water pollution and water quality standards and controls. Some of the specific authorities include:

- a) Distribution of federal funds for construction of sewage treatment facilities.
- b) Establishment of recommended health standards for drinking water supplies, and waters used for recreation.
- c) Financial aid to states to enable them to conduct their own control programs.

5. Bureau of Land Management, U. S. Department of Interior

The Federal Bureau of Land Management (B.L.M.) is responsible for administration and management of certain United States lands. As described in the Islands section of the management plan, the BLM administers 51 islands in the Mississippi River from St. Cloud to Anoka. The BLM maintains an inventory of these islands. No public use facilities have been developed to date.

6. U. S. Soil Conservation Service

The Soil Conservation Service (S.C.S.) is the technical agency involved in coordination of a national program for soil and water conservation. Activities carried out by this agency include:

- a. Technical assistance to landowners and farm operators in all phases of development and management of farm systems.
- b. Technical aid to groups and individuals with projects for the management and conservation of land and water resources in upstream watersheds.

The S.C.S., in cooperation with the Minnesota Agricultural Experiment Station, has provided detailed soils information in published soil surveys of Sherburne, Wright, and Hennepin counties. Soil surveys for Stearns and Anoka counties are in preparation, although detailed soils information can be obtained at the local S.C.S. offices.

State

1. Minnesota Pollution Control Agency

This agency (M.P.C.A.) would be most directly involved in the water pollution aspects of the Mississippi. Among the responsibilities of the P.C.A. are surveys and evaluation of the sources of water pollution, administration of regulatory and enforcement procedures, inspection of sewage treatment facilities, and administration of Federal Grants-in-Aid to local units of government or for studies related to the river.

2. Mississippi River Parkway Commission of Minnesota

This commission, established in 1963, has as its goal the promotion and establishment of the Great River Road Project paralleling the Mississippi River in Minnesota. The Great River Road, as envisioned in the future, would be a scenic highway or parkway along the river. This parkway would be administered and controlled by the state, with technical assistance and funding provided by the Federal Government. Some of the characteristics of the Great River Road would be:

- a) Partial or complete control of access.
- b) A scenic corridor preserved by acquisition of extensive right-of-way and scenic easements.
- c) Interpretive and public-use facilities.
- d) Restrictions on commercial traffic.
- e) Use of existing highways when feasible; or new locations when needed.

The portion of the Great River Road between Anoka and St. Cloud, as authorized in Minnesota Statutes (1974) 161.148, is as follows:

".... on Trunk Highway No. 169 to junction with Wright County State Aid Highway No. 36 to junction with Trunk Highway No. 101; thence northerly on Trunk Highway

No. 101 to junction with Wright County State Aid Highway No. 39; thence northwesterly on County State Aid Highway 39 to junction with Interstate Route No. 94 at Monticello; thence northwesterly on Interstate No. 94 to junction with Trunk Highway No. 152 in St. Cloud;"

The Minnesota Highway Department would be directly responsible for the management of the Great River Road. The current proposal by the Highway Department includes recommendations for proposed rest stops, picnic areas, boat launching facilities, and scenic overlooks.

Though the general concept of a Great River Road has existed for many years, the specific characteristics and routes have changed several times. The project has never really evolved to its full intent. Except for some placement of route markers, little actual development has occurred. Lack of funding, perhaps indicating a general lack of commitment, has been one of the major drawbacks of this project.

3. Environmental Quality Council (E.Q.C.)

This council, composed of representatives from several state agencies and departments, the Governor's Office, and the Citizens' Advisory Committee, was created by the state legislature to review and act on environmental problems transcending any single agency's responsibilities. Some of the responsibilities unique to the E.Q.C. are:

- a) Establishment of state environmental quality standards for the subdivision and development of land.
- b) Regulations for preparation of environmental impact statements (EIS), and review and approval of the EIS for a particular project or action.
- c) Preparation of criteria related to selection, planning and administration of potential areas of critical concern; and recommendation of such areas to the Governor.
- d) Power plant site and transmission line corridor selection.
- e) Overall review and direction for major environmental actions, decisions and issues in the state.

Of particular importance in relation to the river would be environmental review of land subdivision and development, highway or bridge construction, and other actions concerning the river or adjacent lands; and transmission line corridor or route selection.

4. Minnesota Highway Department

In addition to its involvement in the proposed Great River Road, the Highway Department is responsible for administering several existing highway safety rest areas. These areas constitute an important component of the existing recreational facilities along the river. The Department is, of course, directly involved in present and future highway and bridge planning, construction, and maintenance.

5. Regional Development Commissions

The creation of Regional Development Commissions was authorized in 1969 by the Regional Development Act. Under this legislation, counties and municipalities within a designated region may combine to petition the state for establishment of a Regional Development Commission (RDC). These commissions, composed of citizens and representatives of various county, municipal, and local boards, are authorized to receive planning grants and required to prepare a development plan for their particular region. In addition, the RDC is responsible for review of Federal and State Aid Program applications from local government agencies, and must also review comprehensive plans of local government and independent agencies. In the review, the commission will advise the granting authority of the relationship of the particular application to the comprehensive plans and priorities of the region which it represents.

Local Agencies and Offices

1. Soil Conservation Districts - (under S.C.S.)

The S.C.S. provides technical assistance to individuals, groups, organizations, cities, counties and state governmental units in promoting the wise use of water and land resources.

The S.C.S. assists individuals and groups primarily through conservation districts. These districts are organized, according to state law by local citizens. Management is through an elected board made up of citizens. The S.C.S. is the only Federal agency that receives appropriations specifically for assistance to conservation districts.

Through the conservation districts, the S.C.S. provides assistance to landowners who want to develop diverse or alternative uses of their land, or plan for a transition from one land use to another. Examples would be a change from cropland to pasture, or from agricultural production to income producing recreation use or wildlife conservation. The S.C.S. helps farmers and landowners prepare a conservation plan for their land and helps them apply conservation measures that require special skills or knowledge.

2. Agricultural Extension

The Agricultural Extension Service is a continuing education unit of the University of Minnesota and the U. S. Department of Agriculture. Its purpose is to distribute knowledge from the classroom and laboratories of the University to the citizens of the State. This is accomplished through instructional programs, informational brochures, and consultation services.

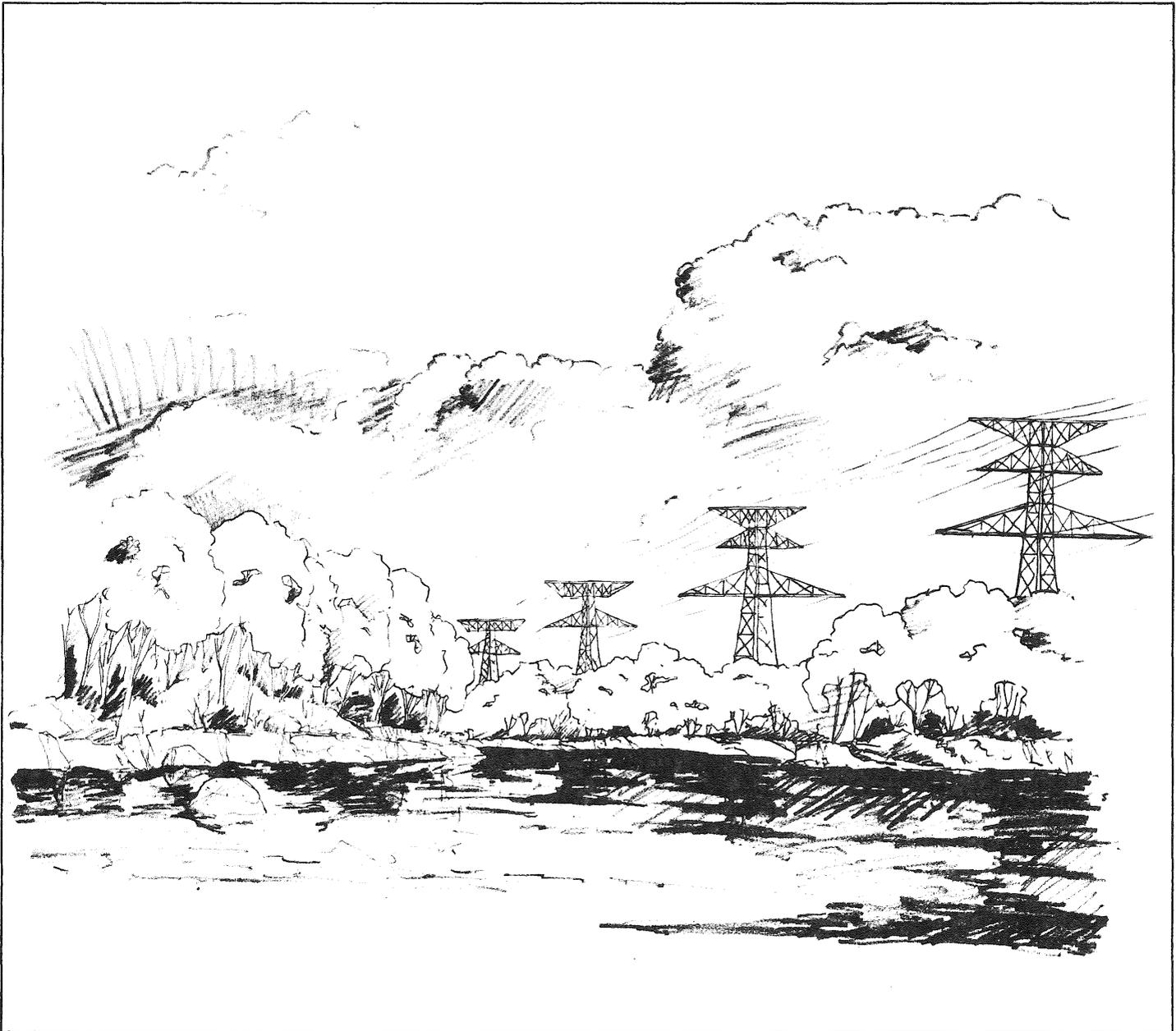
Each county has an extension office to help carry out the objective of bringing the University and its resources within reach of all the people of the state. County staff members known as county extension agents assist in a variety of local programs and projects. This extension work is financed and administered through a combination of county, state, and federal efforts.

3. County Zoning Administrators and Sanitarians

The land areas adjoining the Mississippi River in Anoka and Hennepin counties are incorporated, and as such, the applicable zoning and sanitary requirements are those of each municipality. Sherburne, Stearns, and Wright counties each have a county zoning administrator and a county sanitarian.

Each county zoning administrator is responsible for the administration and enforcement of the county land use control ordinances, which include a shore-land management ordinance and a land subdivision ordinance. In addition, there also could be a county-wide zoning ordinance, a building code, and a floodplain management ordinance as detailed floodplain studies are completed.

County Sanitarians are responsible for the administration and enforcement of the county sanitary ordinance.



PROJECT FINANCING AND COSTS

Existing Sources of Funding:

The following are the most common sources of funds for financing acquisition, scenic easements and development of recreation areas. They are applicable to any river within the state.

The Land and Water Conservation Fund (LAWCON) is administered by the Bureau of Outdoor Recreation (BOR), Department of Interior and was established in 1965 to assist states and their political subdivisions in providing urgently needed public outdoor recreation areas and facilities.

The BOR shares 50% of the cost of planning, acquisition and development on projects which relate to outdoor recreation. Acquisition of lesser interests, such as scenic easements, are eligible when such lessor rights will insure a desired public use of the property. Scenic easements will be considered for LAWCON funds on the basis of their merit and contribution to outdoor recreation.

The Soil Conservation Service of the Department of Agriculture administers project grants for flood prevention, sedimentation and erosion control, agriculture water management and outdoor recreation facilities. Resource Conservation and Development (R.C. & D.) grants are authorized on a long range comprehensive development plan within a recognized geographic area (i.e., a river watershed). Several different federal, state and local sponsors may be involved with the project and cooperate in the project's completion.

Natural Resources funds are derived from a two-cent-per-pack tax on cigarettes and are appropriated by each regular session of the Minnesota Legislature. The intent of the funds are to finance an accelerated program of natural and recreational resource development. The Minnesota Resources Commission reviews requests for Natural Resources funds each biennium and forwards to the House Appropriations Committee and the Senate Finance Committee, its evaluations and recommendations.

Natural Resources Federal Reimbursement Account funds are accumulated from reimbursements and matching funds received from the federal government for expenditures of state appropriations. These funds are available for acquisition and development of state recreation or historic lands. The appropriations made out of the federal reimbursement account must have the approval of the Governor after consultation with the Legislative Advisory Committee and they are limited to one million dollars during a biennium.

Department of Natural Resources funds are available to local units of government, snowmobile and bicycle clubs from the state snowmobile, cross-country skiing and bicycle trail grants-in-aid program. The program is administered by the Division of Parks and Recreation, Department of Natural Resources. Grants-in-aid funds are derived from unrefunded gasoline taxes and the registration of snowmobiles. They are available for land acquisition and/or lease, trail development, trail facility development and trail maintenance. The program provides 65% of the cost of the project with the local unit of government or trail club providing 35%.

Funds may be solicited from any private sources, but only a few examples will be mentioned:

State Park Associations
Private Foundations
Corporations
Private Citizens

Trail Clubs
JC's
Community Organizations
Fund Raising Functions

Donations of land and interests in land, including scenic easements, and facilities are accepted on the behalf of the Governor of the State of Minnesota by the Department of Natural Resources. They are important because they allow appropriated funds for acquisition and development to be extended. The generosity of private citizens is appreciated and remembered by a permanent acknowledgment on the site or facility. Land donations are appraised by a competent land appraiser and a portion of the true land value may be deducted from the donor's personal income tax.

Possible Future Sources of Funding:

As recommended in this management plan, future funding may be available from the Minnesota Highway Department from funds appropriated for the Great River Road. If a portion of this funding were made available to the Department of Natural Resources, it could be used to acquire lands or interest in lands and develop recreational facilities along the Mississippi River in conjunction with both the Wild and Scenic Rivers Program and the Great River Road.

Although no funds have been appropriated from the revenue gathered by registration of canoes, it is expected as a future source. Canoes and Kayaks represent an ever-growing percentage of the total watercraft registered, and have accounted for approximately 70% of all new watercraft registrations since 1972. Funds appropriated from canoe registrations could be spent for acquisition of land or interest in land and recreational development. Recreational developments might include primitive campsites, rest areas, canoe and boat accesses, and portages.

PROPOSED MISSISSIPPI RIVER CORRIDOR CRITICAL AREA

The Metropolitan Council has proposed that the portion of the Mississippi River between the city of Anoka and Goodhue County be designated as a critical area. This recommendation was made in response to the need for coordinated planning for the corridor with a regional approach, and in recognition of the important economic, recreational, historical and cultural values of the area.

A report outlining this proposal has been prepared by the Metropolitan Council and submitted to the Minnesota Environmental Quality Council. Public hearings have been conducted as required prior to any designation of a critical area by the Governor.

MINNESOTA LAND MANAGEMENT INFORMATION SYSTEM

The land use information used to prepare a portion of the land use and ownership maps was based on data taken from the Minnesota Land Management Information System. This data was accumulated on a forty acre basis; the criteria for evaluating this land use is given below:

Forested - A forty in which the land cover consists of deciduous or coniferous trees. To be considered forested, a forty must contain a scattering of trees with at least 10 percent crown cover.

Cultivated - A forty in which the dominant land use consists of land which appears recently tilled or harvested mechanically.

Water - A forty in which the dominant land use consists of permanent open water.

Marsh - A forty in which the dominant land use consists of non-forested, vegetated area which are permanently wet. Examples: Marshes, meadows, bogs, sloughs.

Urban Residential - A forty containing five or more residential buildings and no commercial buildings. Examples: Seasonal and permanent lakeshore homes, resorts, mobile homes, and other residential dwellings.

Extractive - A forty in which the dominant land use consists of the extraction of minerals, including ancillary facilities. Examples: Mines, tailings, gravel pits, quarries, crusheries, storage facilities.

Pasture and Open - A forty in which the dominant land use consists of pasture land or land not used for any other identifiable purpose. Examples: Grazing land, transitorial upland brush, abandoned farmland, meadows, beaches, rock outcrops.

Urban Non-Residential or Mixed Residential - A forty containing at least one commercial, industrial, or institutional development. Examples: Schools, factories, hospitals, nurseries, cemeteries, golf courses, gun clubs, athletic fields, organized recreational facilities, business districts, churches, filling stations, government buildings, warehouses, storage tanks, grain elevators, military installations, sewage disposal facilities, fish rearing areas, radio and television stations, drive-in theaters, state and county garages, prisons, motels, nursing homes and junk yards.

Transportation - A forty in which the dominant land use consists of facilities for the conveyance of people and/or materials. Examples: Airports, railroad yards, highway interchanges, rights-of-way.

Data From: Minnesota Land Management Information System

