

BIG FORK RIVER

Minnesota

Drawer 35

DR35

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF OUTDOOR RECREATION
Region 4

FOR GOVERNMENT USE ONLY

Memorandum

September 13, 1963

To: Director, Bureau of Outdoor Recreation

From: Lake Central Study Team

Subject: Big Fork River, Minnesota

The Big Fork River in the State of Minnesota meets the five criteria established for inclusion within the proposed nationwide system of wild rivers.

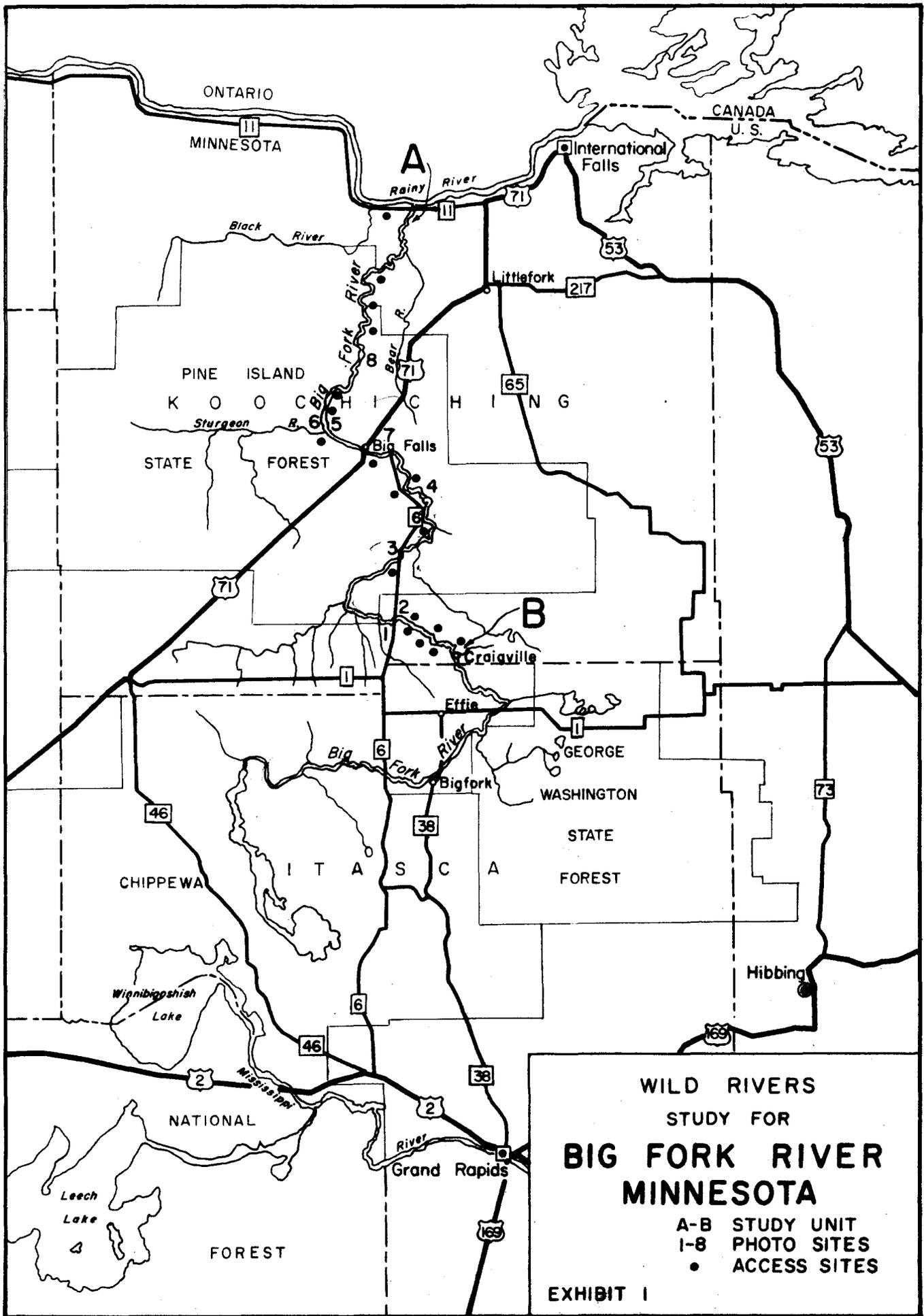
The stream is not recommended for study in depth at this time because of its remote location and lack of immediate threats. However, the stream is of outstanding quality and the most wilderness of those studied. If ease of acquisition for Federal control is a consideration, the Big Fork would make an excellent selection.

Canoeing and fishing for northern pike and muskelunge are chief past-times of river users. In the lower stretches, motor boating is possible.

The bulk of the land is in county forests. A considerable amount is state forests, and the ownership of the M. & O. Paper Company. A few private holdings also exist. Ownership is such that it should be relatively easy to acquire scenic easements or reserve large blocks of land greater in scope and more effective than strip ownership.

Lake Central Study Team

FOR GOVERNMENT USE ONLY



Wild Rivers Study

For The

BIG FORK RIVER

MINNESOTA

September 1963

Lake Central Study Team

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THREE STEP

- I. RIVER AREA INVENTORY FORM
- II. CRITERIA
- III. FINDINGS

I. RIVER AREA INVENTORY FORM

A. General information

1. Name of river

Big Fork River, Minnesota

2. Location of study unit(s)

The Big Fork River from Craigville to its confluence
with the Rainy River.

3. State(s)

Minnesota

4. County(ies)

Koochiching County, Minnesota

5. Major drainage basin

Hudson Bay and Upper Mississippi River Basin

6. Population within 50 miles 203,000; 150 miles 660,000;
250 miles 5,000,000.

7. Weather characteristics by seasons and inclusive dates when study unit(s) is best suited for public use and normal weather conditions during that period

November 1 - May 15	Cold - snow, rain - little public use
May 15 - July 1	Cool - wet - light use
July 1 - August 15	Warm - dry - heavy public use
August 15 - October 15	Cool - dry - best public use period
October 15 - November 1	Cool - cold - light public use

SOURCE: Personal knowledge of group

B. Description and characteristics of river (by study unit(s)):

1. Number of miles in study unit(s)

108 miles

SOURCE: Arthur Ennis, Big Falls, Minnesota

2. Width characteristics

Seventy five to three hundred feet - width uniformly greater as stream progresses northward.

SOURCE: Personal observation of study group

3. Depth characteristics

Deep enough to float a canoe during open water season with only occasional pullover of rapids during low water. Boat use restricted to high water and light boats primarily between Big Falls and Craigville.

SOURCE: Roy Warner, Big Falls, Minnesota.

4. Flow characteristics

Generally stable so that stream is navigable by canoe at all times. The stream flow is not fast. It is punctuated by flat quiet stretches and short rapids.

SOURCE: Cecil Richards, Big Falls, Minnesota

5. Course characteristics and stability

Stream meanders considerably but the course is stable having very few oxbows.

SOURCE: Jerome Kuehn, Minnesota Conservation Department,
St. Paul, Minnesota

6. Bed material

Bed material is made up of clay, rock, silt and sand with little evidence of erosion. Numerous boulders project above the water in many areas. There is also an abundance of logs lying on the bottom.

SOURCE: Cecil Richards, Big Falls, Minnesota

7. Water quality (kind, degree and source of pollution)

The water is bog brown and generally of excellent quality. Only pollution present is from Bigfork, a village of 464 people.

SOURCE: Cecil Richards, Big Falls, Minnesota

8. Type of fishery (warm or cold water) and dominant species of fish (commercial and sport)

The river supports a good warm water fishery for muskellunge, northern pike, walleye and smallmouth black bass. It is among the best musky rivers in the region. Two small unnamed tributaries support brook trout.

SOURCE: Cecil Richards, Big Falls, Minnesota

C. Description and characteristics of setting (by study unit(s)):

1. Nature of topography

From Craigville to Big Falls the land is extremely flat. Below Big Falls the area is flat to slightly rolling. The immediate river banks are considerably higher in this sector.

SOURCE: Arthur Ennis, Big Falls, Minnesota

2. Ecological type (deciduous, coniferous, prairie, desert, shrub, or other) and brief description.

The area supports a mixed deciduous, coniferous forest. Over 95 per cent of the land is forested. Much of the stream is in a complete wilderness.

SOURCE: Personal knowledge of study group

3. Important species of wildlife and status

Wildlife present consist of big game species such as white-tailed deer, black bear, and moose. Other common species of game are ruffed grouse, sharp-tailed grouse, woodcock, and snowshoe hare. Waterfowl utilization and production in the river area are light. Otter, mink, beaver, muskrat are common in the system. Hunting and trapping pressures are light.

SOURCE: Cecil Richards, Big Falls, Minnesota

D. River access

1. Types and locations of public access (spot on map)

Access areas are shown on the exhibit. They are not well developed. However, they generally do not restrict use by canoes and light boats.

SOURCE: Arthur Ennis, Big Falls, Minnesota

2. Factors limiting public access (physical, legal)

Factors limiting access are the lack of a road net and the quality of existing access areas.

SOURCE: Cecil Richards, Big Falls, Minnesota

E. Special scientific, educational and esthetic values

1. Geologic

The river is within the old glacial Lake Agassiz bed.

SOURCE: Arthur Ennis, Big Falls, Minnesota

2. Biotic

The area supports a good population of moose. It is one of the few areas where there are timber wolves and lynx present.

SOURCE: Cecil Richards, Big Falls, Minnesota

3. Historic

The Big Fork River was a fur trade route from the Red Lakes to the Rainy River. It was also the site of numerous early logging activities. Several Chippewa Indian camp grounds are located along the system. Artifacts can be found at these sites.

SOURCE: Arthur Ennis, Big Falls, Minnesota

4. Archeologic

5. Other

During the period June 15 - July 30 insects such as mosquitoes, black flies, deer flies and horse flies all are particularly bad. From August 1 to the freeze-up is the best use period.

SOURCE: Roy Warner, Big Falls, Minnesota

F. Present quality of recreation and environmental factors limiting quality:

<u>Kinds</u>	<u>Quality</u>				<u>Environmental Limiting factors</u>
	<u>Excellent</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	
Boating:					
Motor				X	Shallow water, rocks
Non-motor	X				
Fishing	X	-	X		Excellent musky water, good for walleye
Hunting					
Big game	X				
Small game	X	-	X		Populations vary
Waterfowl				X	Little waterfowl use
Camping	X	-	X		Sites not well developed
Swimming			X	- X	Cool water, limited facilities
Hiking				X - X	Very few trails
Sightseeing			X	- X	Good by canoe, fair otherwise
Nature study			X		Limited by accessibility
Other _____					

G. Classification of study unit(s) (according to six ORHC classes)

Class III - Natural Environment Areas. Various types of areas that are suitable for recreation in a natural environment and usually in combination with other uses.

Class V - Primitive areas. Undisturbed roadless area, characterized by natural wild conditions, including "wilderness area."

H. Status of economic development

1. Characterize the economy of the general river area

The economy of the area is based on forestry and recreation. Farming in this area has gradually decreased - today it is practically nonexistent. Forestry activities are well developed. Recreational facilities are extremely limited.

SOURCE: Arthur Ennis, Roy Warner, Cecil Richards,
Big Falls, Minnesota

2. Is the economy growing, declining stagnant: What economic activities are there that are growing, declining:

Forestry and recreation are growing. Farming has steadily declined to the point where it is insignificant.

SOURCE: Arthur Ennis, Roy Warner, Cecil Richards, Big Falls, Minnesota

3. Describe the transportation routes to and through the general river area (rail, air, boat, auto) and facilities (such as landing strips, etc.)

The area is serviced by the Northern Pacific Railroad, one U. S. Highway No. 71, and four hard-surfaced State Highways 6, 65, 217, and 11. In addition, there is a limited county network of roads as shown on the attached county map. No commercial airlines serve the immediate area. International Falls is the nearest community served by air.

SOURCE: Road maps of area, Minnesota Highway Department.

- I. Describe present development and give the status of plans for water resource developments in the general area by Federal agencies and others that would drastically and permanently affect the study unit(s).

There is one water power project at Big Falls operated by the Mindako Corporation. It is a run of the river operation involving a diversion canal around the rock cut at Big Falls. There are no projects planned by any other State or Federal agencies.

SOURCE: Robert Calton, St. Paul District Engineers Office
Edward Wahtowski, Big Falls, Minnesota
Jerome Kuehn, Minnesota Conservation Department,
St. Paul, Minnesota

J. What impact (detrimental or beneficial) will the following uses (present or planned) have on the qualities of the study unit(s):

1. Agriculture

None - no agricultural use of area anticipated.

SOURCE: Arthur Ennis, Cecil Richards, and Roy Warner

2. Forestry

Managed use of the forests will not adversely affect the study units.

SOURCE: Arthur Ennis, Cecil Richards, and Roy Warner

3. Mining

None at present and no mining activity indicated.

SOURCE: Arthur Ennis, Cecil Richards, and Roy Warner

4. Transportation

Little change expected in road network. U. S. Highway 71 has been designated as "Great River Road."

SOURCE: Arthur Ennis, Cecil Richards, and Roy Warner

5. Industry

Little change expected except in forestry activity which will increase.

SOURCE: Arthur Ennis, Cecil Richards, and Roy Warner

6. Recreation

This activity will grow slowly. Big Fork River has been designated as a canoe route by the Minnesota Conservation Department and the Big Falls Commercial Club as printed in a book entitled "Big Fork River Float Trip Map." This publicity has increased interest and use of the area.

SOURCE: Arthur Ennis, Cecil Richards, and Roy Warner

7. Residential - Community

Little or no change expected.

SOURCE: Arthur Ennis, Cecil Richards, and Roy Warner

8. Other

K. Condition of headwater lands and trends in management

Headwater lands are semi-managed forests. The trends are toward better management which portends a bright picture for good water conditions.

SOURCE: Arthur Ennis, Cecil Richards, Big Falls, Minnesota

L. Land ownership (general pattern of Federal, State and private ownerships) (show on map).

The land ownership pattern is not available readily for designation on a map. The bulk of the land is in County forests, a considerable amount is in State forests, and the ownership of M. & O. Paper Company. There are also a few other private holdings. Much of the area is in the boundaries of Pine Island State Forest.

SOURCE: Arthur Ennis, Big Falls, Minnesota
Jerome Kuehn, St. Paul, Minnesota

M. Actions that have been taken or are planned to protect the natural qualities of the river and its environment (such as special state legislation, zoning, easements, etc.)

Koochiching County has indicated its intention to zone it for recreation. They will not sell any land along the river.

State Legislature has designated this river as a canoe route - one of four in the State of Minnesota.

SOURCE: Jerome Kuehn, St. Paul, Minnesota
Arthur Ennis, Big Falls, Minnesota

N. Other

O. Sources of reference and information (maps, reports, agencies, persons, etc.)

Cecil Richards, Minnesota Conservation Dept., Big Falls, Minnesota
Jerome Kuehn, Minnesota Conservation Dept., St. Paul, Minnesota
Hjalmer Swenson, Minnesota Conservation Dept., St. Paul, Minnesota
Harley Hanson, Minnesota Conservation Dept., Grand Rapids, Minnesota
Robert Calton, St. Paul District Engineers Office, St. Paul, Minn.
Melvin Jordahl, St. Paul District Engineers Office, St. Paul, Minn.
Arthur Ennis, M. & O. Paper Company, Big Falls, Minnesota.
Roy Warner, Guide, Big Falls, Minnesota
Ed Wahtowski, Mindako Co., Big Falls, Minnesota
Field observations by study group including airplane flight over area
Bureau of Sport Fisheries and Wildlife (RBS)
State and County highway maps
Big Fork River float trip map
Clarence Hill, Big Falls, Minnesota
U. S. Geological Survey
National Park Service, McGregor, Iowa
U. S. Forest Service, Milwaukee, Wisconsin
Bureau of Outdoor Recreation, Ann Arbor, Michigan

P. Photographs (color and black and white) (label and spot on map).

Eight photographs of the study unit on four pages immediately following page 17.



Photo 1 - The Big Fork River near Craigville, Minnesota



Photo 2 - A quiet reach in the upper sector of the study unit.



Photo 3 - A typical reach of the middle Big Fork



Photo 4 - An aerial view in the same reach

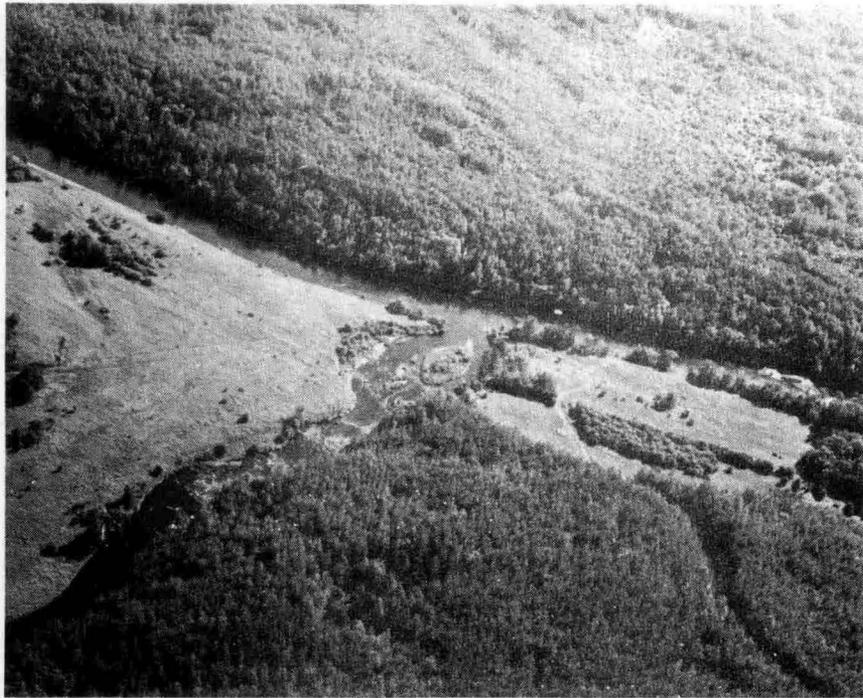


Photo 5 - The confluence of the Big Fork and Sturgeon River



Photo 6 - Looking north from the confluence of the Big Fork and Sturgeon River



Photo 7 - The rock cut at Big Falls



Photo 8 - A flat reach between Big Falls and the Rainy River

Q. Method of study

Investigation was made by car along segments of roads leading to or along the river.

Airplane flights were made over the river area.

A great deal of the information was obtained from such secondary sources as maps, reports, interviews, etc.

Stretches of the river in the study unit have been canoed, fished and hiked at times past by members of the study group.

R. Period of study

A field study was made during a two-day period, August 18 and 19, by Robert A. Uppgren, Bureau of Sport Fisheries and Wildlife and John Eichstedt, Bureau of Outdoor Recreation.

II. CRITERIA

Based on the information and impressions gained during the study, evaluate the river area against the following five criteria. To qualify for further consideration for status in a national system of wild rivers, a river area should meet all of these criteria:

1. The river is still relatively undeveloped, unpolluted, and free-flowing and the scene as viewed from the river is pleasing whether primitive or rural-pastoral, or these conditions must be capable of restoration as far as practicable and within foreseeable legislative, financial and technical capabilities.

Yes X

No

Explain

The area is almost completely primitive. It is unpolluted, free-flowing and when viewed from the river is pleasing. There are no adverse conditions in the unit in need of correction.

2. The river area possesses recreation, scientific, historic, or esthetic values of outstanding quality.

Yes X

No

Explain

The unit has recreation and esthetic values of outstanding quality. The historic aspects of the river are significant, such as the use of the river as a trade and exploration route from Canada to the west through the Red Lakes and the Indian villages and mounds in the area.

3. The river area is large enough to sustain existing public recreation use or accumulate more without resulting in appreciable reduction of the quality of the experience or damage to the resource (rule of thumb: 50 miles long and 50 feet wide).

Yes X

No

Explain

The river length (unit) is 108 miles long and is of sufficient width to sustain many times its existing use.

4. The quality, size, and uniqueness of the river and its setting is of sufficient importance to attract use from beyond the boundaries of the locality and state(s) and would appear to outweigh other uses of the river.

Yes X

No

Explain

The good water quality, the outstanding fishery, and the attractive setting in essentially a wilderness area outweigh other limited uses of the area. The river will attract people from many parts of the United States.

5. Plans for other uses of the river or its setting that would permanently and drastically impair the natural conditions have not progressed to the point that construction has commenced.

Yes X

No

Explain

There are no known plans that would impair the natural condition of the unit in any way.

III. FINDINGS

If the river area meets the five criteria and thereby qualifies for further consideration for status in a national system of wild rivers as an alternative to other uses that may be proposed:

1. Summarize briefly the basis for your conclusion.

The river meets the five criteria and fully qualifies for status in a national system of rivers. It is a free-flowing wilderness stream of great beauty. It is unpolluted and of sufficient size to sustain a great deal of use. In addition it has an outstanding muskellunge fishery that together with other features would attract people from a wide area.

2. Identify the river unit(s) that are worthy of wild river status and delineate on a map the lands that should be included in order to effectively protect the river and its setting.

The river unit is designated on attached exhibit I. The lands that should be included in order to effectively protect the river have not been delineated. However, the ownership of the land is such that it should be relatively easy to receive scenic easements or reserve large blocks of land much greater in scope and more effective than strip ownership.

3. Identify problems that may be encountered should efforts be made to protect the river area and its watershed, and suggest possible solutions.

The problems encountered in this area should be relatively small. The landholders - State, County and Minnesota and Ontario Paper Company have all indicated a willingness to cooperate in attempts to reserve this area. The other relatively small holdings of private land would not appear to be a significant obstacle.

4. Other