Memorandum

To: Director, Bureau of Outdoor Recreation

From: Lake Central Study Team

Subject: Upper Iowa River, Iowa

The Upper Iowa River in the State of Iowa meets the five criteria established for inclusion within the proposed nationwide system of Wild Rivers.

The Upper Iowa is not recommended for a depth study at this time. The fractionated land ownership pattern on this river poses serious acquisition problems and other rivers within the Lake Central Region offer higher quality recreation potential.

The Upper Iowa River has a combination of qualities that make it unique in Mid-America including rural-pastoral use in the upper reaches, palisades near Bluffton, ice caves at Decorah and canyon country below Decorah. It is geologically unique, being within the driftless area of the glaciated period. Archeologically, the New Galena Mounds are significant. Both warm and cold water fisheries are available, including trout fishing. The stream is located in north-eastern Iowa, relatively close to Chicago, Des Moines, and the Davenport, Iowa complex of communities.

Lake Central Study Team

FOR GOVERNMENT USE ONLY
WILD RIVERS STUDY
FOR THE
UPPER LOJA RIVER
IOWA
SEP 1 0 1963

Lake Central Study Team

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THREE STEP

I. RIVER AREA INVENTORY FORM

II. CRITERIA

III. FINDINGS

IV. MAPS
A. General information

1. Name of river  
   Upper Iowa Rivers

2. Location of study unit(s)  
   Main stem of the Upper Iowa reach from Mississippi River confluence to Lime Springs.

3. State(s)  
   Iowa

4. County(ies)  
   Allamakee, Winneshiek, Howard

5. Major drainage basin (see appendix A)  
   Upper Mississippi River Basin

6. Population within 50 miles  
   556,000  
   150 miles  
   2,750,000  
   250 miles  
   11,000,000

There has been a tendency for cities to increase in population, by the same token the smaller towns and rural areas have tended to decline in population.
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

Winter season (December through March) cold with snow.
Spring (April through May) cool and pleasant.
Summer (June through August) hot, humid, with showers.
Fall (September through November) cool and pleasant.

Summer time is the season of maximum recreation use, fall is usually a most delightful period with the autumnal coloring most spectacular.

Source: Personal knowledge of study group living in near vicinity.

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

1. Number of miles in study unit(s) 95 miles

2. Width characteristics

Varies from approximately 150 feet to 40 feet at Lime Springs. Owing to the relatively steep banks along most of the reach, flooding is limited to the last 5 miles of the river.
3. Depth characteristics

The river is generally too shallow for motor boats, while it is excellent for canoes and other float equipment. Most stretches can be waded during the summer. Rocky riffles are common. The water is deep enough for swimming in many places.

4. Flow characteristics

The flow is moderate and heavy in the spring. During summer and fall the flow slacks off to an average of 6 mph. The flow is reasonably smooth and level except near the abandoned power site where a 20 foot water fall is hazardous. Drainage area 568 square miles, average discharge over past 25 years, 338 cubic feet per second, recorded in Decorah at mid reach.

The river falls 700 feet from Lime Springs to its confluence with the Mississippi River 95 miles down stream.

5. Course characteristics and stability

Entrenched, meandering and stable.
6. Bed material  Rock with some gravel and sand

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

No pollution, excellent water quality. River has a clear stream classification by the State.

Source: Iowa Natural Resources Council and Iowa State Conservation Commission

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

Warm water below dams east of Decorah. Dominant species: bass, catfish, pike, northerns. Marginal cold water upper reach above Decorah supporting trout, small mouth bass.
Native spawn area for small mouth bass. Tributary streams such as Bear Creek, Canoe Creek are excellent trout streams. The Upper Iowa River drainage is considered the best trout fishing habitat in the State of Iowa.

Source: Iowa State Conservation Commission
C. **Description and characteristics of setting** (by study unit(s)):

1. **Nature of topography**

Hilly and valley province. Deep cut canyons of galena limestone. The majestic palisades near Bluffton have attracted considerable attention from eminent geologists. This is a valley of superlative beauty.

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

Primarily deciduous although conifers are present. Oak, hickory, basswood, elm, butternut are common. This is also the southern most major stand of native balsam fir.

3. **Important species of wildlife and status**

Bear, raccoon, squirrel, rabbit, grouse and many species of duck.

There are relatively large tracts of forested land bordering the river.

**Source:** Iowa State Conservation Commission
D. River access

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

There are numerous points of public access from both sides of the river. The State Conservation Commission has acquired several access points and is continuing in their efforts to acquire more land adjacent to the river for access purposes.

Source: Iowa State Conservation Commission

2. Factors limiting public access (physical, legal)

There are several stretches with steep cliffs that limit access. Some stretches of privately owned land on both sides of the river generally restrict access although permission is readily obtained. Little use pressure is noted. Access is comparatively easy to acquire. In some cases land has been donated to the State for access purposes.

Source: Iowa State Conservation Commission

E. Special scientific, educational and aesthetic values

1. Geologic

Located in the Driftless Ice Age area where the paleozoic era is exposed. A scenic river with many springs. River cuts through sheer limestone bluffs. Ice caves are an interesting feature in the Decorah area, found in the Galena-Freton Limestone.

The palisades and near Bluffton is one of the most impressive points along the river. Here the river has polished the vertical walls. These rounded protuberant faces appear as semi-cylindrical pilasters supporting the
massive walls. Many large springs found among them are Running Springs, Twin Springs and Sievert Springs.

The geology of the Upper Iowa has attracted the attention of such eminent geologists as Dale, Hall, White and McGee. These men have found the valley to be superlative geologically.

The river has carved the deepest gorges in Iowa, reaching depths of 400 feet in the lower portions. The high ridge of the south bank contains the highest land between St. Paul, Minnesota and the Gulf of Mexico.

interposition of lines exact so that it is motion that controls the
interaction between quantities, where interaction is the same as a
point of time between the beginning of parallel and one in parallel

5. Other

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reservation, which have designated in our information that the
interconnection of spots has been disputed by the

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4. Sequence, the letter at the beginning of the

3. Historical data, the letter mentioned by

2. Previous
5. Present quality of recreation and environmental factors limiting quality:

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<thead>
<tr>
<th>Kinds</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>Environmental Limiting factors</th>
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<tr>
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<td>Non-motor</td>
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<td>Fishing</td>
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<td>Creel census better than 1 per hour.</td>
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<tr>
<td>Big game</td>
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<td></td>
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<tr>
<td>Small game</td>
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<tr>
<td>Water fowl</td>
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<td></td>
<td></td>
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<tr>
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<tr>
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<tr>
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<tr>
<td>Other</td>
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G. **Classification of study unit(s) (according to six ONCEC classes)**

- **Class II** General Outdoor Recreation Areas
- **Class III** Natural Environment Areas
- **Class VI** Historic and Cultural Sites

H. **Status of economic development**

1. Characterize the economy of the general river area

   The economy is mixed agriculture, consisting of small crop farms and the dairy farm. There is no industrial development in this region.

   Decorah, the only town of any significance on the study reach, has 6,500 population. This city is progressive and is actively promoting tourism.
2. Is the economy growing, declining, stagnant: What economic activities are there that are growing, declining:

The economy is stagnant. Modest consolidation of farms is noted. Population is stagnant also. Some farms are converting to tree farms.

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

The only method of egress is by auto. The local road system is predominately hard surfaced. US 52 bisects the reach at Decorah. State Route 9 parallels the river to the south. State Routes 182, 13, 139, 157 cross the river north and south at regular intervals. The Great River Road will cross the river at its mouth.

There is no commercial navigation on the Upper Iowa.
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 are presently two dams approximately 10 and 30 feet high in the study reach. These power dams have been abandoned for 15 years. Located west of Decorah approximately 5 miles, and are located on the attached map.

The lower dam was built over a waterfall and portions of the dam have been removed by blasting. The dam at present to have a beneficial effect upon the aquatic life in that the downstream waters contain warm water fisheries while the upper is a moderately cold water habitat.

Both dams have been offered to the Iowa Conservation Commission for use as recreation facilities. The State is considering purchasing these structures. It was noted that neither dam contains any back water. Rather they are low head, stream control type of structures.

On the flood plain near the confluence of the Mississippi River, the Corps of Engineers has improved the channel for 3 miles. This channel improvement has alleviated a debris problem. Flood control dikes have been erected in Decorah also.

The Iowa Natural Resources Council has proposed erosion control check dams at English Bench near Decorah. The State Conservation Commission is cooperating with S.C.S. and the Resource Council in this program to assist in siltation control of this watershed.

No plans were discovered for any agency, State or Federal, to construct dams in this study reach.

One additional low head dam of 10 feet is located just above the study reach at Lime Springs. This small dam provides a modest sized recreation lake. It is not used for power production.
J. what impact (detrimental or beneficial) will the following uses (present or planned) have on the qualities of the study unit(s):

1. Agriculture

There is some consolidation of cropland in progress. Conversion from cropland to dairy farming is noted. Erosion is presently of minor importance.

2. Forestry

Timber cutting is minor. Some tree farms are being planted.

3. Mining

None at present. A gravel operation was noted in Decorah, however, siltation ponds keep the sedimentation out of the river.

4. Transportation

Several highway bridges exist. Bridge construction on US 52 in Decorah is causing heavy siltation down stream. This is scheduled for completion in January 64. It is anticipated that the water will clear up after the spring run off as this has been a clear river to its mouth in the past.
5. Industry

Small dairy industries are present. They do not detract from the charm of this study reach.

6. Recreation

Cottage development has not reached this river. Boating is limited by natural factors to floating.

Fishing is listed as outstanding by the State Conservation Commission.

7. Residential - Community

Towns are small. Decorah is the only community of any size on the river.

8. Other

Power lines cross the river at a number of places.

Sources for 1-8 were personal observation, discussion with Iowa Natural Resources Council and Iowa Conservation Commission personnel.
K. **Condition of headwater lands and trends in management**

Headwater lands are farmed extensively. Watershed improvement programs are in effect under the auspices of the Iowa Natural Resources Council and the Iowa Conservation Commission. The land use pattern is somewhat reversed in that the headwater area in Howard County is heavily used for agricultural purposes. Only 7% of the land is in forest cover. At mid reach in Winneshiek County the forest cover is 13%, while Allamakee County the lower 1/3 of the river has 32% forest cover. The S.C.E. and Iowa Natural Resources Council have taken cognizance of this headwater use and have encouraged watershed protection through pasture development rather than crop production.

Source: Iowa Conservation Commission, Iowa Natural Resources Council and personal observation.

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

Both banks are largely in private ownership, mostly small farms.

The State of Iowa owns two small tracts and several access points. Noted on map.

Source: Interview with Iowa Conservation Commission Lands and Waters Chief
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.)

The Iowa Attorney General has given the State Conservation Commission a ruling wherein the State may expend State funds to acquire private land to develop access points. Following this ruling the Conservation Commission has activated a serious land acquisition program. D-E and F-R, Federal funds are also used to acquire river access.

Iowa has developed a prison labor camp on the nearby Yellow River State Forest. The Commission plans to utilize this cheap labor to actively improve purchased acquisition, stream control and watershed improvement in and along the banks of the river.

In Iowa, the State owns the river and land under the water so that when access is available the waters may be used between access points.

N. Other
0. Sources of reference and information (maps, reports, agencies, persons, etc.)

Bureau of Sport Fisheries and Wildlife

Corps of Engineers

National Park Service

U.S. Forest Service

USGS Topographic Maps

County, Highway Maps

Iowa Highway Commission Maps

Field Observation by Study Team, including airplane flights over the area and on the ground inspection.

Iowa Natural Resources Council

Soil Conservation Service

Iowa Conservation Commission

William J. Peterson, State Historian

U.S. Geological Survey

Flow Characteristic of Iowa Stream Bulletin #9
   Iowa Natural Resources Council (1958)

Inventory of Water Resources and Water Problems Bulletin #7
   Iowa Natural Resources Council

Continued --

- 16 -
Meeting of August 12, 1963

Eldred Rich
Jim Cooper
Don Spalding
Louie Huhring
Joe Brill
K. M. Madden
Lee Fleming
Roger Schoumaker
Sylvan T. Kunkel
Bill Tate
Hans Kellerhoff

Iowa Natural Resources Council
Iowa Natural Resources Council
National Park Service
Iowa State Conservation Commission
Iowa State Conservation Commission
Iowa State Conservation Commission
Iowa State Conservation Commission
Iowa State Conservation Commission
U.S. Soil Conservation Service -D.N.
Iowa State Conservation Commission
Iowa State Conservation Commission

Meeting of August 23, 1963

Bill Tate
Louie Huhring

Iowa State Conservation Commission
Iowa State Conservation Commission
Photographs (color and black and white) (label and spot on map)
P-1 Channel improvement from SH182, 2 miles south of New Albin.

P-2 Clear free running stream at mouth of canyon. River 140' wide, 10 miles from mouth.
P-3 Forested area at SH13 crossing. Canyon 1/3 mile wide, river 90'.

P-4 Abandoned power plan and dam site. Showing 4' removed from lip of dam.
P-5 Upper dam and abandoned power plant. Locate 1 mile upstream from P-4

P-6 Aerial view of Freeport Bend showing forested area at mid reach, 40 miles from mouth.
P-7 Aerial view of Palisades and town of Bluffton. River follows along lower edge of bluff.

P-8 Palisades area near Bluffton. River is located along edge of bluffs.
P-9 Aerial view of River and bluffs 5 miles northwest of Bluffton.

P-10 River view west of Kendallville Crossing SH139. Cold clear water, good trout fishing, River 80' wide.
P-11 Lime Springs fishing access, River 40' wide

P-12 Headwaters area 3 miles west of Lime Springs showing 83% agriculture use in this area.
Method of study

Investigation was made by car along segments of roads leading to and along the river. Airplane flights were made over the river area. Information was gleaned from secondary sources such as maps, reports, interviews and personal knowledge of the river reach.

Stretches of the river in the study unit have been seen at times past by the study group.

Period of study

A field study was made during a two-day period of August 19 and 20 by William Byars, U.S. Forest Service and Donald Spalding, National Park Service.
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 upper reaches near Lime Springs is rural pastoral while the mid and lower reaches become primitive in character. The canyon is relatively narrow with little farm land suitable for development. The two dams within the study reach have been abandoned for 15 years. The State has been offered these dams for recreation purposes. The State is following an aggressive land acquisition policy on the study unit and is acquiring access points as funds become available.

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

   Yes ___ X _____
   No ______________

   Explain

   This is an outstanding recreation resource in the State of Iowa. Excellent fishing, canoeing and floating is possible. The reach has high scenic quality. The New Galena Mound group of prehistoric Indian dwellers is unique and important archeologically. The geological time span, the ice caves and many large springs all add to the unique qualities of this study unit.
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 from Lime Springs to New Albin is approximately 95 miles in length. Width varies from 40 feet to 150 feet. Existing public recreation use is light to moderate. The expense of water and usable resource can accommodate 75 to 100% more use without impairing the quality of the recreation or resulting in damage to the resource.

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

This river contains size, quality and uniqueness sufficient to attract use far beyond its state boundaries. It would, of course, require considerable publicity and National status to attract National use. At this time, the river is used only for recreation, drawing visitors from Iowa and contiguous 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  

No

Explain

There are no plans for other uses of this river that the task force were able to identify. The watershed improvement program of the S.C.S. and Iowa Natural Resources Council would improve the quality of the study reach by controlling the sedimentation which is a minor factor in the lower reaches.
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 Upper Iowa River has combination of qualities that makes it unique in mid-America. The rural-pastoral use in the upper reaches, the palisades region near Bluffton, the ice caves by Decorah and the canyon country below Decorah. It is geologically unique being within the Driftless Area of the Glaciated Period. Archeologically the Mounda Mounds are significant. Historically it relates to the early French and Indian era. It further has unique fishing qualities containing both warm and cold water species. It is located strategically in north-eastern Iowa relatively close to other attractions and relatively high population centers. It is 50 miles from Effigy Mounds National Monument, 10 miles from the Yellow River State Forest and it has two fish hatcheries on its tributary streams.

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 is divided in two segments by the city of Decorah at mid reach. Both upper and lower reaches should be considered as worthy of Wild River status as one unit.
3. Identify problems that may be encountered should efforts be made to protect the river area and its watershed, and suggest possible solutions.

Fractionated land ownership would pose serious problems in acquiring enough land to develop a management unit. Land costs are presently favorable however, the Iowa conservative attitude knows no bounds when land costs are mentioned.

Scenic easements along pastoral sections could eliminate some of this problem. In the lower reaches the canyon country is not suitable for agriculture uses and could reasonably be acquired.

4. Other

The general feeling that we ran into in discussing the river was a strong interest and desire of state and local people in preserving it in a free flowing state. The townspeople in Decorah and Hawk clan are strong boosters of recreation and would like to have northeastern Iowa become a mecca for tourism.