

WILDERNESS MANAGEMENT PLAN

SENEY NATIONAL WILDLIFE REFUGE

and

HURON ISLANDS NATIONAL WILDLIFE REFUGE

Recommended to Regional Director for final approval


Acting Regional Director


Area Manager


Project Leader

WILDERNESS MANAGEMENT PLAN

SENEY NATIONAL WILDLIFE REFUGE

SENEY WILDERNESS

UNITED STATES DEPARTMENT OF THE INTERIOR

FISH AND WILDLIFE SERVICE

SENEY, MICHIGAN 49883

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SENEY WILDERNESS MANAGEMENT PLAN

I. IntroductionA. Refuge Establishment

Seney National Wildlife Refuge was established under Executive Order No. 7246, dated December 10, 1935, as "a refuge and breeding ground for migratory birds and other wildlife".

B. Refuge Description

The Seney National Wildlife Refuge is located in the East Central portion of the Upper Peninsula of Michigan, midway between Lakes Michigan and Superior, and comprises 95,455 acres, all in Schoolcraft County.

The topography of the refuge and surrounding area is generally flat with slight gradient from northwest to southeast. Major land forms are low marsh and bog areas interspersed with higher sand ridges.

Major land forms are result of recent geologic action. The area is underlain by a flat sand plain with gentle slope of 6-12 feet per mile to the southeast. This landform was created by outwash from retreat of a Valdres age glacial front, later flooded and re-worked as a shoreline of a post-Algonquin Glacial Lake. As the lake receded, dunes were formed as sand beach and flood plain were exposed to wind action, then stabilized as Aeolian activity ceased. Sand knolls and ridges now present are relics of these old dunes. The rest of the low wetlands have accumulated an organic

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soil mantle as much as eight feet deep in some areas.

Climate is cool and moist strongly influenced by Lake Superior to the north and Lake Michigan to the south. Average annual precipitation is 32 inches with more than half received as rain between April and September. Snowfall averages more than 100 inches annually, settling into a snowpack of 30 inches or more.

Major vegetation types found on the refuge include mixed stands of red pine, jack pine and white pine on dry sand ridges, spruce-tamarack on low poorly drained soils, northern hardwoods and hemlock on the better, well drained soils, and extensive cattail marshes.

C. Refuge Objectives

Seney National Wildlife Refuge was established for the protection and production of waterfowl and other wildlife species. Since the establishment of a resident Canada goose flock in 1935, much effort has been put forth towards the management of refuge lands for this species. The success of Seney's goose management program has directly benefited duck production and maintenance. A gradual increase in migrant ducks and geese has also occurred. As a result of development for waterfowl production and maintenance, other wildlife has benefited. The 440 acres of farmlands provide food for deer, bear, greater sandhill cranes and sharp-tailed grouse. The pool system, which consists of 7,200 acres of surface water, support one or two nesting pairs of bald

eagles each year. Numerous varieties of marsh and water birds are attracted to the pools and marshes.

The public has always been welcome at Seney. However, in recent years increasingly more emphasis is being placed on interpretation of wildlands development and its use by wildlife.

Recreational use of the refuge can be traced to its establishment in 1935 when portions of the area were open to hunting and fishing. The Wigwams Picnic Area was established in 1937 and auto tours were conducted as early as 1949. Since the construction of the Visitor Center in 1964 and the up-grading of our nature trail, self-guiding auto tour and other public use facilities, visitation has increased considerably.

The refuge's interpretive program has correspondingly grown to meet the demands of an ever increasing mobile population. The human benefits derived from Seney's impressive diversity of wildlife and wildlands has long been realized. The public use program has continuously reflected this awareness and has since grown to become one of Seney's important operations.

D. Relationship of Wilderness to Objectives and Programs

The establishment of these Wilderness Areas are "within and supplemental" to the purposes of Seney and Huron Islands National Wildlife Refuges. Each wilderness shall be administered within the manner in which it had been and also shall be administered to preserve its wilderness character. Interior Department

guidelines for wilderness preservation and management will be followed.

Prior to wilderness establishment, management of these areas was minimal. Public use has been minor with only limited hunting use, primarily around the border of Seney Wilderness Area; and a small amount of fishing around Huron Islands Wilderness Area.

E. Wilderness Area Establishment

The Seney - Huron Islands Wilderness proposals included in the 1970 Omnibus Wilderness Act (P.L. 91-504) were signed into law prior to the January 2, 1970 adjournment of the 91st Session of Congress. The Seney Wilderness Area consists of 25,150 acres and the Huron Islands Wilderness Area consists of approximately 147 acres.

II. Description of Wilderness Area

A. Word Description of Legal Boundary

The following-described tract of land is located in Michigan, Schoolcraft County, approximately eight miles easterly of the town of Germfask, Michigan, being part of the land described in Public Law 91-504, dated October 23, 1970; described according to the public land surveys:

Township Forty-four (44) North, Range Fourteen (14) West,

Michigan Meridian: In section six (6), that part lying southwesterly of the southwesterly bank of Marsh Creek; and in

Township Forty-four (44) North, Range Fifteen (15) West,

Michigan Meridian: Sections one (1), two (2), three (3), four (4), five (5), and that part of section six (6) lying northeasterly of the northeasterly right-of-way line of an access road located in the southwesterly portion of the section; and in

Township Forty-four (44) North, Range Sixteen (16) West,

Michigan Meridian: In section one (1), that part lying northeasterly of the northeasterly right-of-way line of an access road located in the easterly portion of the section; and in

Township Forty-five (45) North, Range Fifteen (15) West,

Michigan Meridian: In section three (3), West Half ($W\frac{1}{2}$); all of sections four (4), five (5), six (6), seven (7), eight (8), nine (9); in section ten (10), West Half ($W\frac{1}{2}$); in section fifteen (15), the West Half ($W\frac{1}{2}$) and that part of the East

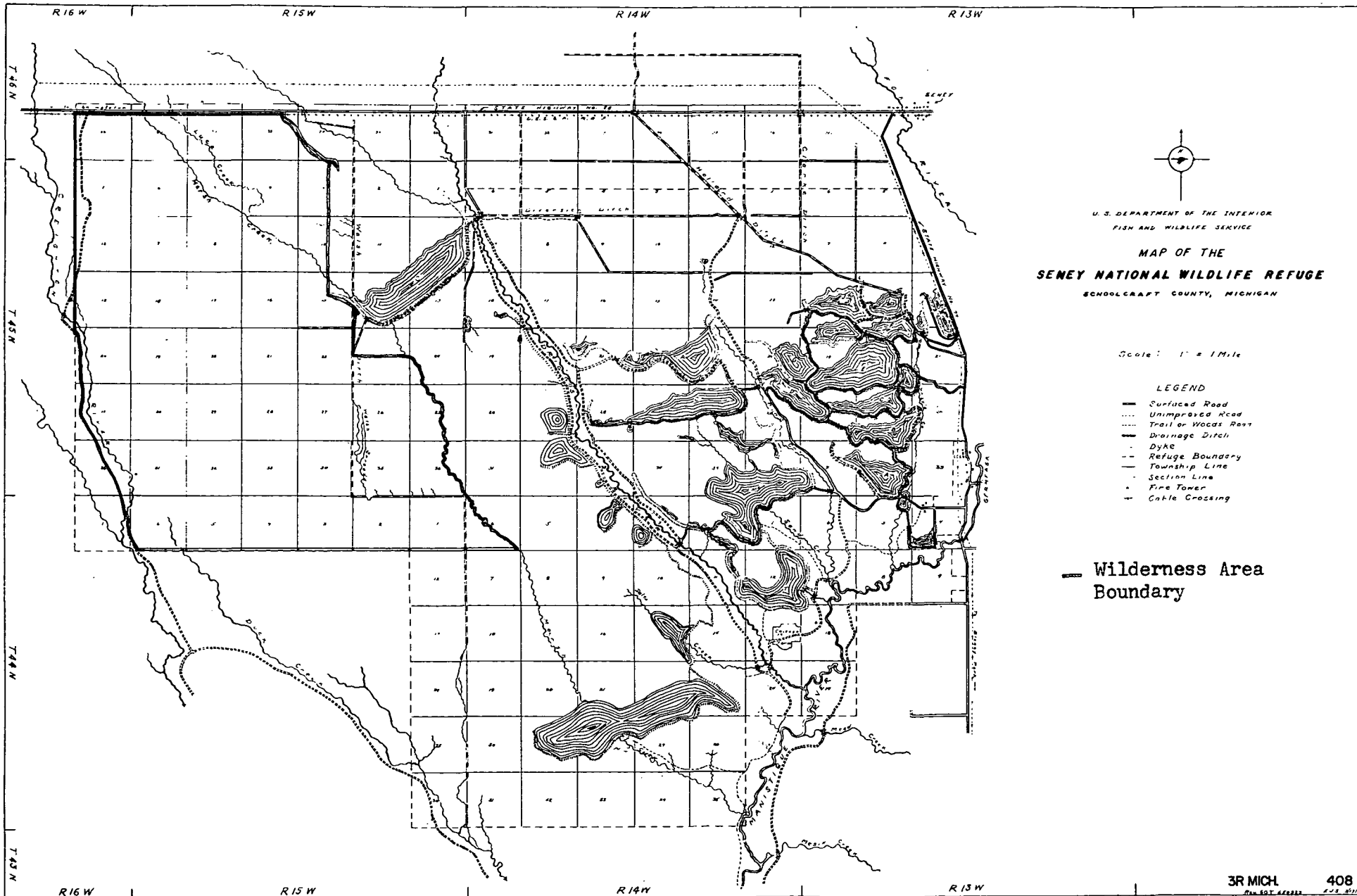
Half (E½) lying westerly of the westerly bank of Walsh Ditch and southerly of the southerly toe of a dike located in the central portion of said East Half (E½); all of sections sixteen (16), seventeen (17), eighteen (18), nineteen (19), twenty (20), twenty-one (21); in section twenty-two (22), the North Half (N½) lying westerly of the westerly bank of Walsh Ditch and the South Half (S½); in section twenty-three (23), that part of the South Half (S½) lying southerly and westerly of the southwesterly bank of Marsh Creek; in section twenty-four (24), that part lying southwesterly of the southwesterly bank of Marsh Creek; in section twenty-five (25), that part lying westerly of the westerly bank of Marsh Creek; all of sections twenty-six (26), Twenty-seven (27), twenty-eight (28), twenty-nine (29), thirty (30), thirty-one (31), thirty-two (32), thirty-three (33), thirty-four (34), thirty-five (35), and that part of section thirty-six (36) lying westerly of the westerly bank of Marsh Creek; and in

Township Forty-five (45) North, Range Sixteen (16) West, Michigan Meridian: That part of sections one (1), twelve (12), thirteen (13), twenty-four (24), twenty-five (25), and thirty-six (36) lying easterly of the easterly right-of-way line of an access road; and in

Township Forty-six (46) North, Range Fifteen (15) West, Michigan Meridian: That part of sections thirty-one (31) and thirty-two (32) lying southerly of the southerly right-of-way line of the Soo Line Railroad; in section thirty-three (33), that part

lying southerly of the southerly right-of-way line of the Soo Line Railroad and southwesterly of the southwesterly right-of-way line of a farm entrance road located in the northeasterly portion of said section; in section thirty-four (34), that part of the West Half (W½) lying southwesterly of the southwesterly right-of-way line of a farm entrance road located in the southwesterly portion of said section; and in

Township Forty-six (46) North, Range Sixteen (16) West, Michigan Meridian: In section thirty-six (36), that part lying southerly of the southerly right-of-way line of the Soo Line Railroad and easterly of the easterly right-of-way line of an access road located in the westerly portion of said section, and containing in the aggregate approximately 25,150 acres.



III. Management

A. Prescribed Burning

1. General

The Wilderness Act, P.L. 88-577, Sec. 4 (b) states in part ".....each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area.....".

C.F.R. Part 35, Sec. 35.10: Controlled Burning states:

"Controlled burning will be permitted on wilderness units when such burning will contribute to the maintenance of preferred vegetation types in the unit; however, any fire in a Wilderness Area that poses a threat to resources or facilities outside the unit will be controlled and extinguished".

Fire, both natural and man-caused, was part of the natural community development process in the Upper Peninsula of Michigan. Therefore, changes in habitat resulting from fire should be viewed as natural rather than unusual. These changes simply set back succession, particularly in bog areas, and result in the addition of new species and changes in numbers of species present before fire. If the unique wilderness values of the Strangmoor Bog are to be perpetuated, prescribed natural fire must be an integral part of this plan.

Use of prescribed fire is desirable to reduce ground fuel

accumulations, to control vegetative succession, to maintain optimum wildlife habitats, and to control disease and/or insect problems. In addition the unique character of vegetation of the Strangmoor Bog National Natural Landmark, located within the Wilderness Area, can only be perpetuated by fire. However, legislative constraints severely limit use of motorized equipment so only the most primitive fire management techniques, foot access and hand tools, can be considered, except under emergency conditions.

A regular program of prescribed burning can prevent occurrence of periodic disastrous fires that threaten adjoining property and resources, and which necessitate use of motorized equipment which often causes more environmental damage than the fire itself.

2. Area To Be Treated

The entire Wilderness Area should be included in a prescribed burning plan, including natural prescribed fire. Each of the major vegetative types requires different treatment, burning conditions, burning rotations, and different precautions to prevent escape of fire from the prescribed area. Those areas underlain with organic soils require careful design of the burning program to prevent destruction of the soils.

3. Control Measures

Policy Updates Nos. 12 and 13, and Section III of the Refuge

Fire Management Plan dictate control measures on any prescribed fire. These measures will be spelled out in each individual prescription for a burning unit. Use of equipment will be limited to the minimum tool concept, and with careful planning use of motorized equipment should only be necessary as a back-up in case of sudden, unpredictable problems that might arise.

4. Individual Burning Units Prescriptions

Unit prescriptions are detailed in the Prescribed Burning Plan, Section IV, of the Refuge Fire Management Plan.

B. Wildlife Inventories

The character of the various habitat types within the wilderness unit generally prescribes limited wildlife utilization. Important species for consideration include big game, the endangered Eastern Timber Wolf, and sharp-tailed grouse. Necessary inventories of big game species, white-tailed deer and black bear, and wolves can be completed through semi-annual aerial reconnaissance in conjunction with other projects.

Song birds, game birds and small mammals inventory data are being collected by the Fire Evaluation Research Team, with the project planned through 1979. This data should furnish sufficient base line data for future management needs.

C. Weed, Insect and Disease Control

There are no legal requirements for control of weeds, insects, or disease at the present time. If at a future time control

of a specific weed, insect or disease became mandatory, sanitation through use of prescribed fire would be priority one control method, using the minimum tool concept.

D. Restoration

1. Old Roads and Trails

Abandoned roads and trails, present on west side of the wilderness unit when established, have been blocked to permit reversion to natural conditions, and will over a long time period eventually vanish.

The Walsh Ditch has not been maintained, and will soon cease to function as siltation continues. All flow into the ditch could be diverted into Marsh Creek below C-3 Pool spillway to speed up the process.

IV. Public Use

A. General

1. Visitation

Current visitation, except fire research teams activities, is limited to hiking and nature study totalling less than ten visits annually, and hunting visitation is estimated at 50 visitor days annually. The character of the land forms within the unit, bog areas and sandy ridges, plus absence of established trails, makes foot travel difficult and generally discourages use by the public. It is not expected that the volume of visitation will increase significantly within the next ten years so little or no impacts on wilderness values are anticipated.

2. Visitor Control

a. Carrying Capacity

To prevent environmental damage to the fragile ecosystems of the Seney Wilderness Area, the maximum carrying capacity has been estimated to be one individual per square mile, except that this is reduced to one per five square miles in the Strangmoor Bog area.

b. Period of Use

The Seney Wilderness Area has use restricted to daylight hours only, and only from August 1 through March 14 annually. Overnight camping is not permitted.

3. Visitor Control

Daily permit is required for hiking and nature study between

August 1 and September 14 annually. Permit is available only at refuge headquarters. Portions of the Wilderness Area are open to public hunting from September 15 through February annually, with no permit required. See Hunting Map appended.

Camping is prohibited except by Special Use Permit to bonafide biologists, botanists, or other qualified applicants in conjunction with an approved research project or study. When permitted, only primitive type camping is authorized.

B. Specific Activities

1. Hiking and Backpacking

Permitted on a daily basis, with no overnight camping. Current and projected use is about ten visits per year, limited primarily by access and difficult terrain to traverse.

2. Hunting

Resident game hunting is permitted on parts of the Wilderness Area during open seasons set by the State, in conformance with all State Regulations. Hunting pressure is light with an estimated 50 hunter days per year.

3. Wildlife Observation

This activity is permitted in conjunction with hiking.

C. Public Use Facilities and Improvements

1. Sanitary Facilities

None and there will be no construction of such facilities.

2. Campgrounds

None and none will be constructed.

3. Trails

None and none will be constructed.

4. Signs

Only signs designating Wilderness Area and Refuge boundaries are in use at present time.

5. Access

Access into area is from public roads, State Highway M-28 on the north side and the Creighton Truck Trail on the west side.

6. Drinking Water

None is available near the wilderness unit. Users must pack their water in.

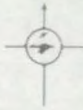
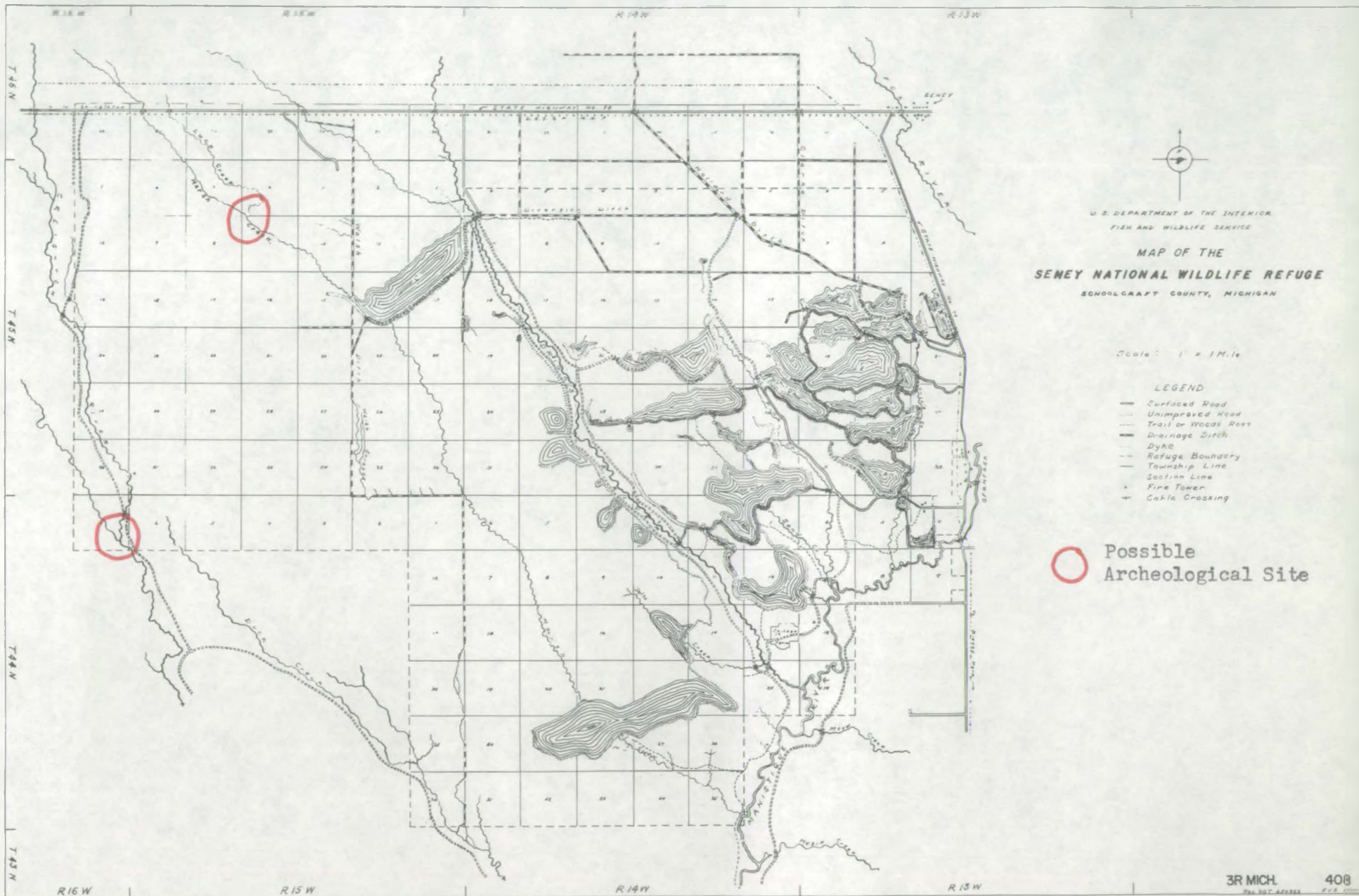
7. Stream Crossings

None and there will be no bridges constructed.

D. Historical and Archeological Sites

An archeological reconnaissance in 1977 indicated there were no known sites in the unit, but indicated possible archeological sites at the two locations, as shown on map, at the confluence of two streams. One historic site, an old logging camp, may also be present but has not yet been identified.

Public use constraints on these areas will be governed by current access and public use regulations until such time as sites are positively identified with archeological and/or historical values.



U. S. DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

MAP OF THE
SENEY NATIONAL WILDLIFE REFUGE
SCHOOLCRAFT COUNTY, MICHIGAN

Scale: 1" = 1 M. 1/4

LEGEND

- Surfaced Road
- Unimproved Road
- Trail or Wood Road
- Drainage Ditch
- Dyke
- Refuge Boundary
- Township Line
- Section Line
- Fire Tower
- ⊕ Cable Crossing

Possible Archeological Site

V. Public Health and Safety

A. Potential Threats or Hazards

None have been identified.

B. Search and Rescue

1. Coordination

Close coordination has been established with the Michigan Department of Natural Resources, Michigan State Police, and Schoolcraft County Sheriff Department. DNR contacts include local Conservation Officer, Seney Equipment Station and District IV Headquarters in Newberry. Michigan State Police posts are located in Manistique, Munising and Newberry, each approximately 30 miles distance, and Schoolcraft County Sheriff is located in Manistique.

The refuge has two-way radio equipment on DNR frequency and can also contact State Police posts on the same frequency. Initial contact for search and rescue is with the State Police and/or DNR personnel.

2. Techniques

All search and rescue techniques will be "minimum tool" concept. In serious situations motorized equipment, including helicopters, can be utilized. Inasmuch as the character of the Seney Wilderness Area limits motorized equipment to tracked-type units which cause serious environmental damage, use of helicopters for rescue operations will be the primary operation.

VI. Research

Current research and other investigations relating to the Seney Fire of 1976 are under two subject areas as they relate to management objectives: (I) Fire Impact Assessment and Monitoring, and (II) Fire Management Model For Seney National Wildlife Refuge.

TASK I -- FIRE IMPACT ASSESSMENT AND MONITORING

Purpose

To evaluate the extent and severity of fire impact on fish and wildlife habitats on Seney Refuge and as appropriate, surrounding areas. To establish baseline values for major aquatic and terrestrial habitats and to monitor responses of habitats and wildlife to the fire.

Description of Work

1. Document the background of the 1976 fire as well as possible including library research with historical materials, refuge records, and Boise Interagency Fire Center (BIFC) files.
2. Reconstruct the behavior and dynamics of the fire from BIFC files and infrared scan tapes.
3. Prepare maps of fire impact in the principal habitat types within the burn perimeters.
4. Finish measurements and photography on permanent vegetation plots established in October, 1976.
5. Measure quality and quantity of nutrients released in deep

organic burns; follow nutrient fate (mobility) and its effects on water quality in adjacent streams and impoundments.

6. Repeat fish population sampling if there is a substantial reduction in water quality due to nutrient and detritus runoff.
7. Establish population census transects or plots in paired burned and unburned habitats to measure comparative seasonal abundance of selected birds (woodcock, grouse, and other birds).
8. Establish paired transects to monitor deer utilization of burned and unburned habitats.
9. Repeat sampling on small mammal census lines established in 1976. Establish new paired lines in string bog, bog forest and sand island habitats.

Methods

Paired Comparison Sampling

Since no one can predict the occurrence or location of a wildfire, there was no possibility of obtaining preburn measurements from the sites burned at Seney. Nevertheless, the behavior of a large and complex fire is such that many opportunities exist to make comparisons between burned and unburned portions of the same habitat units.

From preliminary studies of infrared aerial photography taken on September 18, 1976, it is estimated that at least 18,000 acres of unburned habitat lie within the perimeter of the 55,000 acres

burned on the refuge. This unburned acreage is scattered in blocks as large as a mile square down to thousands of small patches of less than an acre in size. Although this estimate is without adequate ground truth and is probably very conservative, there are abundant opportunities to find uniform habitat blocks which have been partially burned, creating an excellent situation for the use of a paired sampling technique. At random intervals along such a fire line, paired plots, transects or stations can be set off on burned and unburned sides of the line. Various animal, plant, and soil sampling techniques can be used at these sites.

Time Frame - Monitoring -- FY 77 - FY 80

Budget requests in this initial proposal call for three years of intensive monitoring. The assumption was that most of the dramatic changes in plant and animal communities will have occurred by that time. Thereafter, it was proposed that a less frequent schedule of monitoring be established in accordance with the pattern of change indicated in the results of the first three years of work. The third year will be a time of reassessment of research/monitoring needs. If dramatic change is still evident, it may be desirable to extend annual measurements for some of the subprojects. Or, if after three years, the various community measurements indicate that a reasonable level of stability has been reached, a new schedule of periodic monitoring with frequency of measurement in proportion to rates of change will be recommended.

TASK II -- FIRE MANAGEMENT MODEL FOR SENEY REFUGE

As indicated in Director Greenwalt's inter-staff memo of October 18, 1976, the Service cannot continue to use fire as a management tool without a review of existing policies and the establishment of a more elaborate fire management plan for the entire refuge system. As a beginning in these new directions, we suggest creating a fire management model at Seney Refuge. There would be several advantages in using Seney. First, the USFW Forest Fire Research Lab is nearby at East Lansing. Second, the Forest Fire Lab is currently working on fire management projects for the Boundary Waters Canoe Area and Isle Royale National Park. With very similar habitats, it would be relatively easy to transfer experience from these projects to a new effort at Seney. Lastly, more than 20 cubic feet of documentary material has recently been transferred from Boise Interagency Fire Center to permanent storage at Seney Refuge. The modeling contractor could make good use of these records in reconstructing the behavior of the 1976 wildfire. Some of the major runs made by the fire were recorded on infra scanner film; these would be excellent tests of the predictive value of various Seney fire models.

Purpose

To construct a fire management model and plan for Seney Refuge.

Description of Work

1. Develop estimates of frequency and intensity of natural fire in the Upper Peninsula.

2. Prepare a map of previous fire history in the Seney area from historical records, fire scars, distribution of charcoal in soil, and other field evidence.
3. Make biomass inventory, and fuel appraisal of all habitats.
4. Develop potential flammability criteria for all fuels.
5. Develop fuel and fire behavior models for major Seney habitats.
6. Make fire management plan for Seney and tie to existing fire intelligence systems.

Time Frame - Two Years -- Beginning FY 74

VII. Other Considerations

A. Wildfires

Refuge policy is to immediately suppress all wildfires, unless fire meets all requirements for a prescribed natural fire. Necessary measures will be taken to control all wildfires, utilizing the "minimum tool" concept. Minimum tool may include tool caches, fire breaks, motorized land, water or air equipment, chemical retardants, etc. Care will be taken during suppression activities to insure the control methods do not damage wilderness values more than the wildfire itself.

Policy Updates Nos. 12 and 13, and the Refuge Fire Management Plan dictate all pre-suppression and suppression activities on the wilderness unit.

B. Contamination of Waters

State Highway M-28 borders the north boundary of the Wilderness Area for approximately four miles. The potential exists that accidents involving tanker trucks on this heavily travelled highway could result in oil or chemical spills into either Marsh Creek or Ducey Creek which flows into the Wilderness Area. In this event emergency containment and cleanup operations will be conducted under the "minimum tool" concept.

C. Official Purpose Entry

All entry for official purposes will be limited to foot travel only, except under emergency conditions when the "minimum tool" concept will apply.

D. Other

Off-refuge lands bordering the Wilderness Area on the north, west and south are State-owned and no future development of these lands is foreseen; future activities will in all probability be limited to timber harvest operations.

VIII. Funds and Personnel

Annual costs in funds and manpower for administration of the Wilderness Area are minimal and insignificant in the overall refuge administration, currently consisting of limited patrol of unit boundary, correspondence to answer public inquiries, and issuance of extremely limited numbers of use permits.

IX. Plan Currency

This plan will be reviewed annually and revised as appropriate if major changes in use requests, etc. occur.

X. Appendix

1. Public Law 88-577
2. Public Law 91-504
3. Departmental Wilderness Regulations -- Not Available
4. Service Wilderness Regulations. Code of Federal Regulations,
Title 50, Part 35 -- Available at Refuge Office
5. Refuge Wilderness Regulations and Study Brochure
6. Photographs of Wilderness Area -- Available from Region III
Office
7. Environmental Impact Statement -- None Written
8. Public Hearing Record -- Available at Refuge Office
9. Congressional Hearing Record, Serial Number 91-25 -- Available
at Refuge Office
10. Large Scale Map of Wilderness Area



Public Law 88-577
88th Congress, S. 4
September 3, 1964

An Act

To establish a National Wilderness Preservation System for the permanent good of the whole people, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Wilderness Act.

SHORT TITLE

SECTION 1. This Act may be cited as the "Wilderness Act".

WILDERNESS SYSTEM ESTABLISHED STATEMENT OF POLICY

SEC. 2. (a) In order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition, it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness. For this purpose there is hereby established a National Wilderness Preservation System to be composed of federally owned areas designated by Congress as "wilderness areas", and these shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness; and no Federal lands shall be designated as "wilderness areas" except as provided for in this Act or by a subsequent Act.

(b) The inclusion of an area in the National Wilderness Preservation System notwithstanding, the area shall continue to be managed by the Department and agency having jurisdiction thereover immediately before its inclusion in the National Wilderness Preservation System unless otherwise provided by Act of Congress. No appropriation shall be available for the payment of expenses or salaries for the administration of the National Wilderness Preservation System as a separate unit nor shall any appropriations be available for additional personnel stated as being required solely for the purpose of managing or administering areas solely because they are included within the National Wilderness Preservation System.

78 STAT. 890.
78 STAT. 891.

DEFINITION OF WILDERNESS

(c) A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geo-

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logical, or other features of scientific, educational, scenic, or historical value.

NATIONAL WILDERNESS PRESERVATION SYSTEM--EXTENT OF SYSTEM

SEC. 3. (a) All areas within the national forests classified at least 30 days before the effective date of this Act by the Secretary of Agriculture or the Chief of the Forest Service as "wilderness", "wild", or "canoe" are hereby designated as wilderness areas. The Secretary of Agriculture shall--

(1) Within one year after the effective date of this Act, file a map and legal description of each wilderness area with the Interior and Insular Affairs Committees of the United States Senate and the House of Representatives, and such descriptions shall have the same force and effect as if included in this Act: *Provided, however,* That correction of clerical and typographical errors in such legal descriptions and maps may be made.

(2) Maintain, available to the public, records pertaining to said wilderness areas, including maps and legal descriptions, copies of regulations governing them, copies of public notices of, and reports submitted to Congress regarding pending additions, eliminations, or modifications. Maps, legal descriptions, and regulations pertaining to wilderness areas within their respective jurisdictions also shall be available to the public in the offices of regional foresters, national forest supervisors, and forest rangers.

Classification.

Presidential recommendation to Congress.

Congressional approval.

78 STAT. 891
78 STAT. 892.

(b) The Secretary of Agriculture shall, within ten years after the enactment of this Act, review, as to its suitability or nonsuitability for preservation as wilderness, each area in the national forests classified on the effective date of this Act by the Secretary of Agriculture or the Chief of the Forest Service as "primitive" and report his findings to the President. The President shall advise the United States Senate and House of Representatives of his recommendations with respect to the designation as "wilderness" or other reclassification of each area on which review has been completed, together with maps and a definition of boundaries. Such advice shall be given with respect to not less than one-third of all the areas now classified as "primitive" within three years after the enactment of this Act, not less than two-thirds within seven years after the enactment of this Act, and the remaining areas within ten years after the enactment of this Act. Each recommendation of the President for designation as "wilderness" shall become effective only if so provided by an Act of Congress. Areas classified as "primitive" on the effective date of this Act shall continue to be administered under the rules and regulations affecting such areas on the effective date of this Act until Congress has determined otherwise. Any such area may be increased in size by the President at the time he submits his recommendations to the Congress by not more than five thousand acres with no more than one thousand two hundred and eighty acres of such increase in any one compact unit: if it is proposed to increase the size of any such area by more than five thousand acres or by more than one thousand two hundred and eighty acres in any one compact unit the increase in size shall not become effective until acted upon by Congress. Nothing herein contained shall limit the President in proposing, as part of his recommendations to Congress, the alteration of existing boundaries of primitive areas or recommending the addition of any contiguous area of national forest lands predominantly of wilderness value. Notwithstanding any other provisions of this Act, the Secretary of Agriculture may complete his review and delete such area as may be necessary, but not to exceed seven thousand acres, from the southern tip of the Gore Range-Eagles Nest Primitive Area,

Colorado, if the Secretary determines that such action is in the public interest.

(c) Within ten years after the effective date of this Act the Secretary of the Interior shall review every roadless area of five thousand contiguous acres or more in the national parks, monuments and other units of the national park system and every such area of, and every roadless island within, the national wildlife refuges and game ranges, under his jurisdiction on the effective date of this Act and shall report to the President his recommendation as to the suitability or unsuitability of each such area or island for preservation as wilderness. The President shall advise the President of the Senate and the Speaker of the House of Representatives of his recommendation with respect to the designation as wilderness of each such area or island on which review has been completed, together with a map thereof and a definition of its boundaries. Such advice shall be given with respect to not less than one-third of the areas and islands to be reviewed under this subsection within three years after enactment of this Act, not less than two-thirds within seven years of enactment of this Act, and the remainder within ten years of enactment of this Act. A recommendation of the President for designation as wilderness shall become effective only if so provided by an Act of Congress. Nothing contained herein shall, by implication or otherwise, be construed to lessen the present statutory authority of the Secretary of the Interior with respect to the maintenance of roadless areas within units of the national park system.

(d) (1) The Secretary of Agriculture and the Secretary of the Interior shall, prior to submitting any recommendations to the President with respect to the suitability of any area for preservation as wilderness—

(A) give such public notice of the proposed action as they deem appropriate, including publication in the Federal Register and in a newspaper having general circulation in the area or areas in the vicinity of the affected land;

(B) hold a public hearing or hearings at a location or locations convenient to the area affected. The hearings shall be announced through such means as the respective Secretaries involved deem appropriate, including notices in the Federal Register and in newspapers of general circulation in the area: *Provided*, That if the lands involved are located in more than one State, at least one hearing shall be held in each State in which a portion of the land lies;

(C) at least thirty days before the date of a hearing advise the Governor of each State and the governing board of each county, or in Alaska the borough, in which the lands are located, and Federal departments and agencies concerned, and invite such officials and Federal agencies to submit their views on the proposed action at the hearing or by no later than thirty days following the date of the hearing.

(2) Any views submitted to the appropriate Secretary under the provisions of (1) of this subsection with respect to any area shall be included with any recommendations to the President and to Congress with respect to such area.

(e) Any modification or adjustment of boundaries of any wilderness area shall be recommended by the appropriate Secretary after public notice of such proposal and public hearing or hearings as provided in subsection (d) of this section. The proposed modification or adjustment shall then be recommended with map and description thereof to the President. The President shall advise the United States Senate and the House of Representatives of his recommendations with respect to such modification or adjustment and such recom-

Report to
President.

Presidential
recommendation
to Congress.

Congressional
approval.

Suitability.

Publication in
Federal Register.

Hearings.

Publication in
Federal Register.

78 STAT. 892.

78 STAT. 893.

Proposed modi-
fication.

mentations shall become effective only in the same manner as provided for in subsections (b) and (c) of this section.

USE OF WILDERNESS AREAS

Sec. 4. (a) The purposes of this Act are hereby declared to be within and supplemental to the purposes for which national forests and units of the national park and national wildlife refuge systems are established and administered and—

16 USC 475.
16 USC 528-531.

(1) Nothing in this Act shall be deemed to be in interference with the purpose for which national forests are established as set forth in the Act of June 4, 1897 (30 Stat. 11), and the Multiple-Use Sustained-Yield Act of June 12, 1960 (74 Stat. 215).

16 USC 577-577b.

16 USC 577a-577h.
16 USC 577d-1,
577g-1, 577h.

(2) Nothing in this Act shall modify the restrictions and provisions of the Shipstead-Nolan Act (Public Law 539, Seventy-first Congress, July 10, 1930; 46 Stat. 1020), the Thye-Blatnik Act (Public Law 733, Eightieth Congress, June 22, 1948; 62 Stat. 568), and the Humphrey-Thye-Blatnik-Andresen Act (Public Law 607, Eighty-fourth Congress, June 22, 1956; 70 Stat. 326), as applying to the Superior National Forest or the regulations of the Secretary of Agriculture.

39 Stat. 535.
16 USC 1 et seq.

41 Stat. 1063,
49 Stat. 838.

(3) Nothing in this Act shall modify the statutory authority under which units of the national park system are created. Further, the designation of any area of any park, monument, or other unit of the national park system as a wilderness area pursuant to this Act shall in no manner lower the standards evolved for the use and preservation of such park, monument, or other unit of the national park system in accordance with the Act of August 25, 1916; the statutory authority under which the area was created, or any other Act of Congress which might pertain to or affect such area, including, but not limited to, the Act of June 8, 1906 (34 Stat. 225; 16 U.S.C. 432 et seq.); section 3(2) of the Federal Power Act (16 U.S.C. 796(2)); and the Act of August 21, 1935 (49 Stat. 666; 16 U.S.C. 461 et seq.).

78 STAT. 893.
78 STAT. 894.

(b) Except as otherwise provided in this Act, each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area and shall so administer such area for such other purposes for which it may have been established as also to preserve its wilderness character. Except as otherwise provided in this Act, wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.

PROHIBITION OF CERTAIN USES

(c) Except as specifically provided for in this Act, and subject to existing private rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by this Act and, except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area.

SPECIAL PROVISIONS

(d) The following special provisions are hereby made:

(1) Within wilderness areas designated by this Act the use of aircraft or motorboats, where these uses have already become established, may be permitted to continue subject to such restrictions as the Secretary of Agriculture deems desirable. In addition, such measures may be taken as may be necessary in the control of fire, insects, and diseases, subject to such conditions as the Secretary deems desirable.

(2) Nothing in this Act shall prevent within national forest wilderness areas any activity, including prospecting, for the purpose of gathering information about mineral or other resources, if such activity is carried on in a manner compatible with the preservation of the wilderness environment. Furthermore, in accordance with such program as the Secretary of the Interior shall develop and conduct in consultation with the Secretary of Agriculture, such areas shall be surveyed on a planned, recurring basis consistent with the concept of wilderness preservation by the Geological Survey and the Bureau of Mines to determine the mineral values, if any, that may be present; and the results of such surveys shall be made available to the public and submitted to the President and Congress.

(3) Notwithstanding any other provisions of this Act, until midnight December 31, 1983, the United States mining laws and all laws pertaining to mineral leasing shall, to the same extent as applicable prior to the effective date of this Act, extend to those national forest lands designated by this Act as "wilderness areas"; subject, however, to such reasonable regulations governing ingress and egress as may be prescribed by the Secretary of Agriculture consistent with the use of the land for mineral location and development and exploration, drilling, and production, and use of land for transmission lines, waterlines, telephone lines, or facilities necessary in exploring, drilling, producing, mining, and processing operations, including where essential the use of mechanized ground or air equipment and restoration as near as practicable of the surface of the land disturbed in performing prospecting, location, and, in oil and gas leasing, discovery work, exploration, drilling, and production, as soon as they have served their purpose. Mining locations lying within the boundaries of said wilderness areas shall be held and used solely for mining or processing operations and uses reasonably incident thereto; and hereafter, subject to valid existing rights, all patents issued under the mining laws of the United States affecting national forest lands designated by this Act as wilderness areas shall convey title to the mineral deposits within the claim, together with the right to cut and use so much of the mature timber therefrom as may be needed in the extraction, removal, and beneficiation of the mineral deposits, if needed timber is not otherwise reasonably available, and if the timber is cut under sound principles of forest management as defined by the national forest rules and regulations, but each such patent shall reserve to the United States all title in or to the surface of the lands and products thereof, and no use of the surface of the claim or the resources therefrom not reasonably required for carrying on mining or prospecting shall be allowed except as otherwise expressly provided in this Act: *Provided*, That, unless hereafter specifically authorized, no patent within wilderness areas designated by this Act shall issue after December 31, 1983, except for the valid claims existing on or before December 31, 1983. Mining claims located after the effective date of this Act within the boundaries of wilderness areas designated by this Act shall create no rights in excess of those rights which may be patented under the

Mineral leases,
claims, etc.

78 STAT. 894.
78 STAT. 895.

provisions of this subsection. Mineral leases, permits, and licenses covering lands within national forest wilderness areas designated by this Act shall contain such reasonable stipulations as may be prescribed by the Secretary of Agriculture for the protection of the wilderness character of the land consistent with the use of the land for the purposes for which they are leased, permitted, or licensed. Subject to valid rights then existing, effective January 1, 1984, the minerals in lands designated by this Act as wilderness areas are withdrawn from all forms of appropriation under the mining laws and from disposition under all laws pertaining to mineral leasing and all amendments thereto.

Water resources.

(4) Within wilderness areas in the national forests designated by this Act, (1) the President may, within a specific area and in accordance with such regulations as he may deem desirable, authorize prospecting for water resources, the establishment and maintenance of reservoirs, water-conservation works, power projects, transmission lines, and other facilities needed in the public interest, including the road construction and maintenance essential to development and use thereof, upon his determination that such use or uses in the specific area will better serve the interests of the United States and the people thereof than will its denial; and (2) the grazing of livestock, where established prior to the effective date of this Act, shall be permitted to continue subject to such reasonable regulations as are deemed necessary by the Secretary of Agriculture.

(5) Other provisions of this Act to the contrary notwithstanding, the management of the Boundary Waters Canoe Area, formerly designated as the Superior, Little Indian Sioux, and Caribou Roadless Areas, in the Superior National Forest, Minnesota, shall be in accordance with regulations established by the Secretary of Agriculture in accordance with the general purpose of maintaining, without unnecessary restrictions on other uses, including that of timber, the primitive character of the area, particularly in the vicinity of lakes, streams, and portages: *Provided*, That nothing in this Act shall preclude the continuance within the area of any already established use of motorboats.

(6) Commercial services may be performed within the wilderness areas designated by this Act to the extent necessary for activities which are proper for realizing the recreational or other wilderness purposes of the areas.

(7) Nothing in this Act shall constitute an express or implied claim or denial on the part of the Federal Government as to exemption from State water laws.

78 STAT. 895.

78 STAT. 896.

(8) Nothing in this Act shall be construed as affecting the jurisdiction or responsibilities of the several States with respect to wildlife and fish in the national forests.

STATE AND PRIVATE LANDS WITHIN WILDERNESS AREAS

SEC. 5. (a) In any case where State-owned or privately owned land is completely surrounded by national forest lands within areas designated by this Act as wilderness, such State or private owner shall be given such rights as may be necessary to assure adequate access to such State-owned or privately owned land by such State or private owner and their successors in interest, or the State-owned land or privately owned land shall be exchanged for federally owned land in the same State of approximately equal value under authorities available to the Secretary of Agriculture: *Provided, however*, That the United States shall not transfer to a State or private owner any mineral interests unless the State or private owner relinquishes or

Transfers, restriction.

causes to be relinquished to the United States the mineral interest in the surrounded land.

(b) In any case where valid mining claims or other valid occupancies are wholly within a designated national forest wilderness area, the Secretary of Agriculture shall, by reasonable regulations consistent with the preservation of the area as wilderness, permit ingress and egress to such surrounded areas by means which have been or are being customarily enjoyed with respect to other such areas similarly situated.

(c) Subject to the appropriation of funds by Congress, the Secretary of Agriculture is authorized to acquire privately owned land within the perimeter of any area designated by this Act as wilderness if (1) the owner concurs in such acquisition or (2) the acquisition is specifically authorized by Congress.

Acquisition.

GIFTS, BEQUESTS, AND CONTRIBUTIONS

SEC. 6. (a) The Secretary of Agriculture may accept gifts or bequests of land within wilderness areas designated by this Act for preservation as wilderness. The Secretary of Agriculture may also accept gifts or bequests of land adjacent to wilderness areas designated by this Act for preservation as wilderness if he has given sixty days advance notice thereof to the President of the Senate and the Speaker of the House of Representatives. Land accepted by the Secretary of Agriculture under this section shall become part of the wilderness area involved. Regulations with regard to any such land may be in accordance with such agreements, consistent with the policy of this Act, as are made at the time of such gift, or such conditions, consistent with such policy, as may be included in, and accepted with, such bequest.

(b) The Secretary of Agriculture or the Secretary of the Interior is authorized to accept private contributions and gifts to be used to further the purposes of this Act.

ANNUAL REPORTS

SEC. 7. At the opening of each session of Congress, the Secretaries of Agriculture and Interior shall jointly report to the President for transmission to Congress on the status of the wilderness system, including a list and descriptions of the areas in the system, regulations in effect, and other pertinent information, together with any recommendations they may care to make.

Approved September 3, 1964.

LEGISLATIVE HISTORY:

HOUSE REPORTS: No. 1538 accompanying H. R. 9070 (Comm. on Interior & Insular Affairs) and No. 1829 (Comm. of Conference).

SENATE REPORT No. 109 (Comm. on Interior & Insular Affairs).

CONGRESSIONAL RECORD:

Vol. 109 (1963): Apr. 4, 8, considered in Senate.

Apr. 9, considered and passed Senate.

Vol. 110 (1964): July 28, considered in House.

July 30, considered and passed House, amended, in lieu of H. R. 9070.

Aug. 20, House and Senate agreed to conference report.

to pay an amount which will exceed 25 per centum of the cost of any project. Any unexpended or unobligated balance of any apportionment made pursuant to this section shall be made available for expenditure in Puerto Rico, Guam, or the Virgin Islands, as the case may be, in the succeeding year, on any approved projects, and if unexpended or unobligated at the end of such year is authorized to be made available for expenditure by the Secretary of the Interior in carrying on the research program of the Fish and Wildlife Service in respect to fish of material value for sport or recreation."

Citation of
title.

SEC. 204. This title may be cited as the "Federal Aid in Fish Restoration Act Amendments of 1970".

Approved October 23, 1970.

Public Law 91-504

AN ACT

To designate certain lands as wilderness.

October 23, 1970
[S. 3014]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Wilderness
areas.
Designation.

DESIGNATION OF WILDERNESS AREAS WITHIN NATIONAL WILDLIFE REFUGES

SECTION 1. In accordance with section 3(c) of the Wilderness Act (78 Stat. 890; 16 U.S.C. 1132(c)), the following lands are hereby designated as wilderness:

Bering Sea.
Bogoslof.
Tuxedni.
Saint Lázaria.
Hazy Islands.
Forrester Island.

(a) certain lands in the (1) Bering Sea, Bogoslof, and Tuxedni National Wildlife Refuges, Alaska, which comprise about forty-one thousand one hundred and thirteen acres, three hundred and ninety acres, and six thousand four hundred and two acres, respectively, and which are depicted on maps entitled "Bering Sea Wilderness—Proposed", and "Bogoslof Wilderness—Proposed", and "Tuxedni Wilderness—Proposed", dated August 1967, and (2) the lands comprising the Saint Lázaria, Hazy Island, and Forrester Island National Wildlife Refuges, Alaska, which comprise about sixty-two acres, forty-two acres, and two thousand six hundred and thirty acres, respectively, and which are depicted on maps entitled "Southeastern Alaska Proposed Wilderness Areas", dated August 1967, which shall be known as the "Bering Sea Wilderness", "Bogoslof Wilderness", "Tuxedni Wilderness", "Saint Lázaria Wilderness", "Hazy Islands Wilderness", and "Forrester Island Wilderness", respectively;

Three Arch
Rocks.
Oregon Islands.
Washington
Islands.

(b) certain lands in the (1) Three Arch Rocks and Oregon Islands National Wildlife Refuges, Oregon, which comprise about seventeen acres and twenty-one acres, respectively, and which are depicted on maps entitled "Three Arch Rocks Wilderness—Proposed", and "Oregon Islands Wilderness—Proposed", dated July 1967, and (2) the lands comprising the Copalis, Flattery Rocks, and Quillayute Needles National Wildlife Refuges, Washington, which comprise about five acres, one hundred and twenty-five acres, and forty-nine acres, respectively, and which are depicted on a map entitled "Washington Islands Wilderness—Proposed", dated August 1967, as revised January 1969, which shall be known as "Three Arch Rocks Wilderness", "Oregon Islands Wilderness", and "Washington Islands Wilderness", respectively;

Salt Creek.

(c) certain lands in the Bitter Lake National Wildlife Refuge, New Mexico, which comprise about eight thousand five hundred

acres and which are depicted on a map entitled "Salt Creek Wilderness—Proposed", and dated August 1967, which shall be known as the "Salt Creek Wilderness";

(d) certain lands in (1) the Island Bay and Passage Key National Wildlife Refuges, Florida, which comprise about twenty acres each and which are depicted on maps entitled "Island Bay Wilderness—Proposed" and "Passage Key Wilderness—Proposed", dated August 1967, and (2) the Wichita Mountains National Wildlife Refuge, Oklahoma, which comprise about eight thousand nine hundred acres and which are depicted on a map entitled "Wichita Mountains Wilderness—Proposed", dated October 1967, which shall be known as "Island Bay Wilderness", "Passage Key Wilderness", and "Wichita Mountains Wilderness", respectively;

(e) certain lands in (1) the Seney, Huron Islands, and Michigan Islands National Wildlife Refuges, Michigan, which comprise about twenty-five thousand one hundred and fifty acres, one hundred and forty-seven acres, and twelve acres, respectively, and which are depicted on maps entitled "Seney Wilderness—Proposed", "Huron Islands Wilderness—Proposed", and "Michigan Islands Wilderness—Proposed", (2) the Gravel Island and Green Bay National Wilderness Refuges, Wisconsin, which comprise about twenty-seven acres and two acres, respectively, and which are depicted on a map entitled "Wisconsin Islands Wilderness—Proposed", and (3) the Moosehorn National Wildlife Refuge, Maine, which comprise about two thousand seven hundred and eighty-two acres and which are depicted on a map entitled "Edmunds Wilderness and Birch Islands Wilderness—Proposed", all said maps being dated August 1967, which shall be known as "Seney Wilderness", "Huron Islands Wilderness", "Michigan Islands Wilderness", "Wisconsin Islands Wilderness", and "Moosehorn Wilderness", respectively;

(f) certain lands in the Pelican Island National Wildlife Refuge, Florida, which comprise about three acres and which are depicted on a map entitled "Pelican Island Wilderness—Proposed" and dated August 1970, which shall be known as the "Pelican Island Wilderness"; and

(g) certain lands in the Monomoy National Wildlife Refuge, Massachusetts, which comprise about two thousand six hundred acres but excepting and excluding therefrom two tracts of land containing approximately ninety and one hundred and seventy acres, respectively and which are depicted on a map entitled "Monomoy Wilderness—Proposed" and dated August 1970, which shall be known as the "Monomoy Wilderness".

Island Bay.
Passage Key.
Wichita Mountains.

Seney.
Huron Islands.
Michigan Islands.
Wisconsin Islands.
Moosehorn.

Pelican Island.

Monomoy.

DESIGNATION OF WILDERNESS AREAS WITHIN NATIONAL PARKS AND MONUMENTS

SEC. 2. In accordance with section 3(c) of the Wilderness Act (78 Stat. 890; 16 U.S.C. 1132(c)), the following lands are hereby designated as wilderness:

(a) certain lands in the Craters of the Moon National Monument, which comprise about forty-three thousand two hundred and forty-three acres and which are depicted on a map entitled

Craters of the Moon.

Petrified Forest.

"Wilderness Plan, Craters of the Moon National Monument, Idaho", numbered 131-91,000 and dated March 1970, which shall be known as the "Craters of the Moon National Wilderness Area";

(b) certain lands in the Petrified Forest National Park, which comprise about fifty thousand two hundred and sixty acres and which are depicted on a map entitled "Recommended Wilderness, Petrified Forest National Park, Arizona", numbered NP-PF-3320 O and dated November 1967, which shall be known as the "Petrified Forest National Wilderness Area".

DESIGNATION OF WILDERNESS AREAS WITHIN NATIONAL FORESTS

Mount Baldy.

SEC. 3. In accordance with section 3(b) of the Wilderness Act (78 Stat. 890; 16 U.S.C. 1132(b)), the following lands are hereby designated as wilderness: the area classified as the Mount Baldy Primitive Area with the proposed additions thereto and deletions therefrom, as generally depicted on a map entitled "Proposed Mount Baldy Wilderness", dated April 1, 1966, comprising an area of approximately seven thousand acres, within and as a part of the Apache National Forest, in the State of Arizona.

Maps and descriptions, filing with congressional committees.

SEC. 4. As soon as practicable after this Act takes effect, a map and a legal description of each wilderness area shall be filed with the Interior and Insular Affairs Committees of the United States Senate and the House of Representatives, and such description shall have the same force and effect as if included in this Act: *Provided, however*, That correction of clerical and typographical errors in such legal description and map may be made.

Administration.

SEC. 5. Wilderness areas designated by or pursuant to this Act shall be administered in accordance with the provisions of the Wilderness Act governing areas designated by that Act as wilderness areas, except that any reference in such provisions to the effective date of the Wilderness Act shall be deemed to be a reference to the effective date of this Act, and any reference to the Secretary of Agriculture shall be deemed to be a reference to the Secretary who has administrative jurisdiction over the area.

78 Stat. 890. 16 USC 1131 note.

Approved October 23, 1970.

Public Law 91-505

AN ACT

October 23, 1970 [H. R. 15405]

To render the assertion of land claims by the United States based upon accretion or avulsion subject to legal and equitable defenses to which private persons asserting such claims would be subject.

Riverside County land tract, Calif. Equitable settlement between U.S. and private parties.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the United States shall be subject to all legal and equitable defenses which are available against a private party litigant under the laws of the State in which the subject real property is located on the date of enactment of this Act in any case wherein the United States seeks to establish title to land or seeks to obtain relief dependent on ownership of such lands and (1) such title or ownership is claimed on the basis of accretion or avulsion, (2) the lands to which the United States seeks title or ownership are not necessary to provide riparian frontage to other contiguous lands owned by the United States, (3) the facts upon which the United

*Huron Islands
& Seneey*

Wilderness Study Areas

HURON ISLANDS & SENEY
NATIONAL WILDLIFE REFUGES
MICHIGAN



UNITED STATES DEPARTMENT OF THE INTERIOR

FISH AND WILDLIFE SERVICE

BUREAU OF SPORT FISHERIES AND WILDLIFE

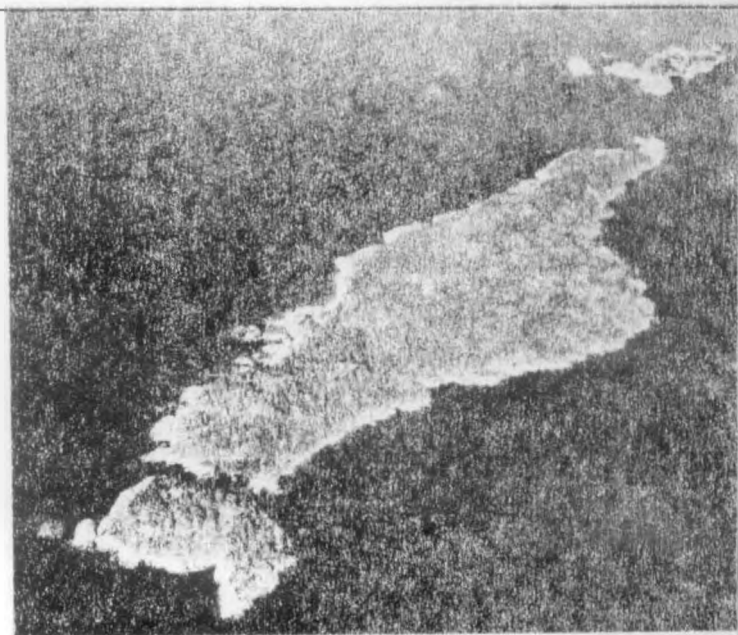
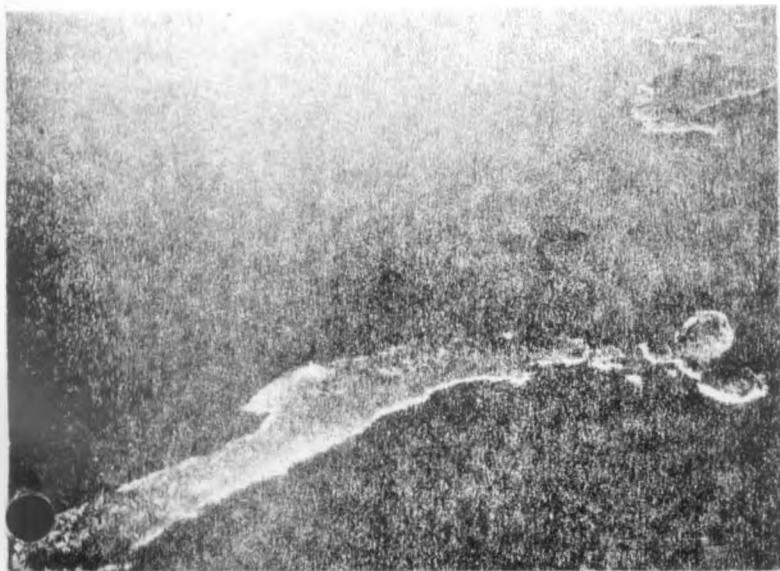
Huron Islands and Seney

WILDERNESS STUDY AREAS

THE HURON ISLANDS Wilderness Study Area comprises the entire Huron National Wildlife Refuge which is composed of a group of eight islands totaling 147 acres off the south shore of Lake Superior.

The Bureau of Sport Fisheries and Wildlife has primary jurisdiction on only 22 acres and secondary jurisdiction over the remainder. The largest island, East Huron, is under the jurisdiction of the Corps of Army Engineers. The second largest, Huron, is under the jurisdiction of the Coast Guard. The islands were selected for study because, as islands, they met the initial wilderness requirements.

SENEY WILDERNESS STUDY AREA is a unit of the Seney National Wildlife Refuge consisting of 19,150 acres of undeveloped wildlife lands.



East Huron and gull rock

OBJECTIVES

National Wildlife Refuge Wilderness Study Areas are those units of the National Wildlife Refuge System which met the initial criteria for Wilderness Areas and were listed for study to determine if they fully satisfied these requirements.

The Wilderness Act of September 3, 1964 (Public Law 88-577) requires that every roadless area of 5,000 acres or more and every roadless island within the National Wildlife Refuge System be designated a Wilderness Study Area. The provisions of Section 1(a) and 4(b) of the Wilderness Act declare that the Act is to be within and supplemental to the purposes for which National Wildlife Refuges are established and administered: wilderness areas shall be administered so as to meet purposes of wildlife protection for which refuges were established and in such a manner as to preserve and protect their wildlife.

*Huron Islands group
Lighthouse Island in foreground*

*Glacial striae -
Huron Islands*

communities; and shall also be administered within the wilderness area concept to provide public recreational, scenic, scientific, educational, conservational and historical enjoyment insofar as wildlife management objectives permit.

LOCATION

The Huron Islands are located 3 miles off the south shore of Lake Superior opposite the Huron Mountains, 40 miles east of Houghton-Hancock in Marquette County, Michigan. The Seney National Wildlife Refuge is located in Michigan's Upper Peninsula approximately halfway between Marquette and Sault Ste. Marie. The 95,150 acre refuge is found west of the towns of Seney and Germfask with the 19,150 acres Wilderness Study Area situated in the northwest quadrant bordering state highway 28 on the north and the Creighton Road on the west.

PHYSIOGRAPHY

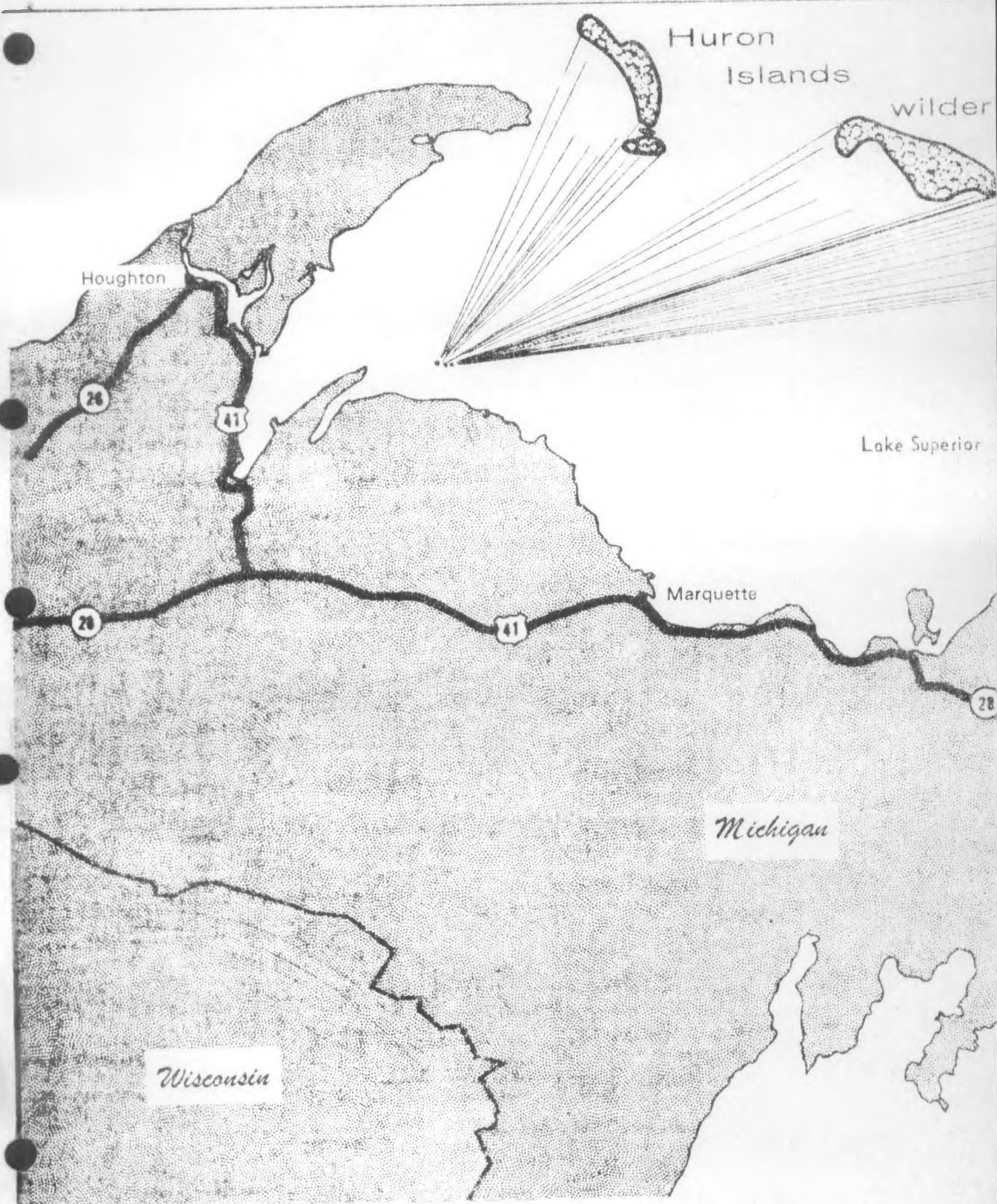
The Huron Islands Study Area is composed of pink and gray granite upthrusts with two thirds of the islands covered with trees, shrubs and herbaceous plants. The remainder is exposed rock which is barren or covered with lichens and mosses and frequently showing deep glacial striae on exposed surfaces. The rocks rise nearly 200 feet above the lake offering steep cliffs on the south and rounded glacier and wave worn rock surfaces on the ends and north sides. The small almost barren rock islands on the eastern extremities of the group is the nesting site of the main herring gull colony.



The Coast Guard has a station, lighthouse and boathouse situated on Huron Island at widely separated locations with well developed foot trails joining the installations. They may, however, eventually abandon the station because of automatic devices though no change is foreseen in the immediate future.

East Huron Island is held by the Corps of Army Engineers as a potential site for rock quarrying to build breakwaters. The Corps retains its primary rights but does not see any demand for quarry rock in the foreseeable future.

The white and red pines, balsam fir, white birch and white cedar and a variety of less numerous other tree species grow in the rock crevices and on the accumulated soil in scattered abandon and show the ravages of wind, ice and sleet while often persisting on precarious sites with gnarled, picturesque effects. Many rocks have coats of folios lichens on their sides or beds of deep reindeer moss on their flat upper surfaces which depict the fragile characteristics of the wild beauty of these islands.



Huron
Islands

wilder

Houghton

Lake Superior

Marquette

Michigan

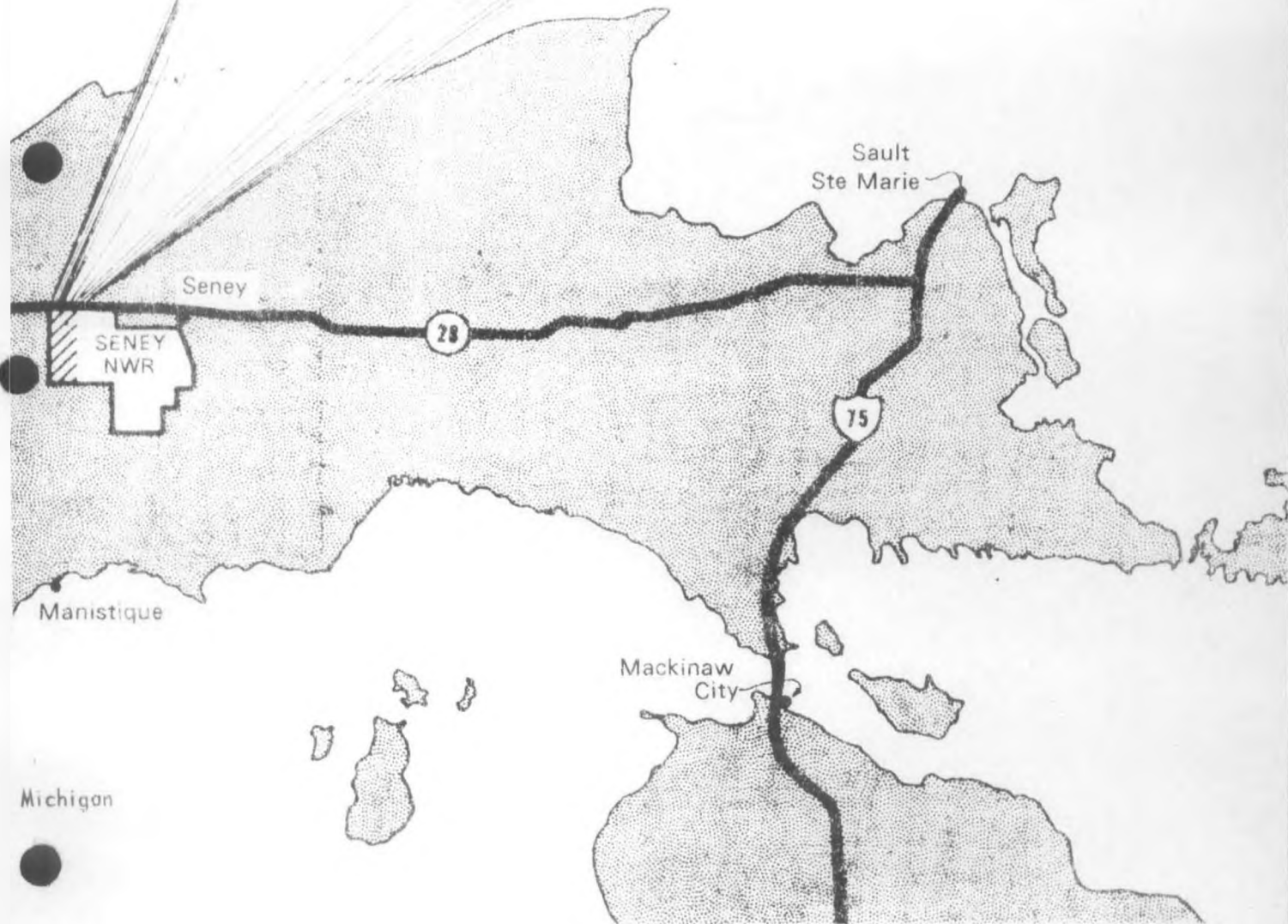
Wisconsin

SS
study
area



Seney
wilderness
study
area

(islands in the bog)



THE SENEY WILDERNESS STUDY AREA is an outstanding contrast to the Huron Islands. Here is found a flat outwash plain from a glacier which in turn was reworked by a glacial lake then made a dry sand plain by drought. During the drought the sands were blown into sand dunes which became extinct and covered with trees and brush during the moist period which presently exists. These extinct dunes now form tree covered islands in the vast bog creating a patterned area called 'string bogs'. Two thirds of the study area is characterized by this sub-arctic formation which is rare at this latitude. The remainder of the study area was once a white pine forest which was logged off before the turn of the century and then burned over many times. It is now covered with large pine stumps second growth aspen and jack pine and a variety of less prominent species.

CLIMATE

The islands are characterized by cold winters and cool summers under the moderating influence of Lake Superior. Seney Refuge on the otherhand has greater extremes with -47 and 103. The average annual temperature of 40 however, is the same.



Large pine stumps and second growth aspen - Seney

Precipitation averages 31 inches and ranges between 18-37 inches. Winds are particularly strong in the spring and fall but may make dangerous sailing on the big lake at any season of the year.

WILDLIFE RESOURCES

The herring gull is probably the most numerous species of wildlife on the Hurons and nests on the barren rock islands at the eastern extremity of the island group. It is essential that the birds be protected from molestation during the nesting and brooding seasons. Other species of wildlife common to the islands are the snowshoe hare, whitefooted deer mouse, raven, bluejay, brown thrasher, tree swallow and a host of additional small perching birds.

Rocks, lichens and pines - Huron Islands



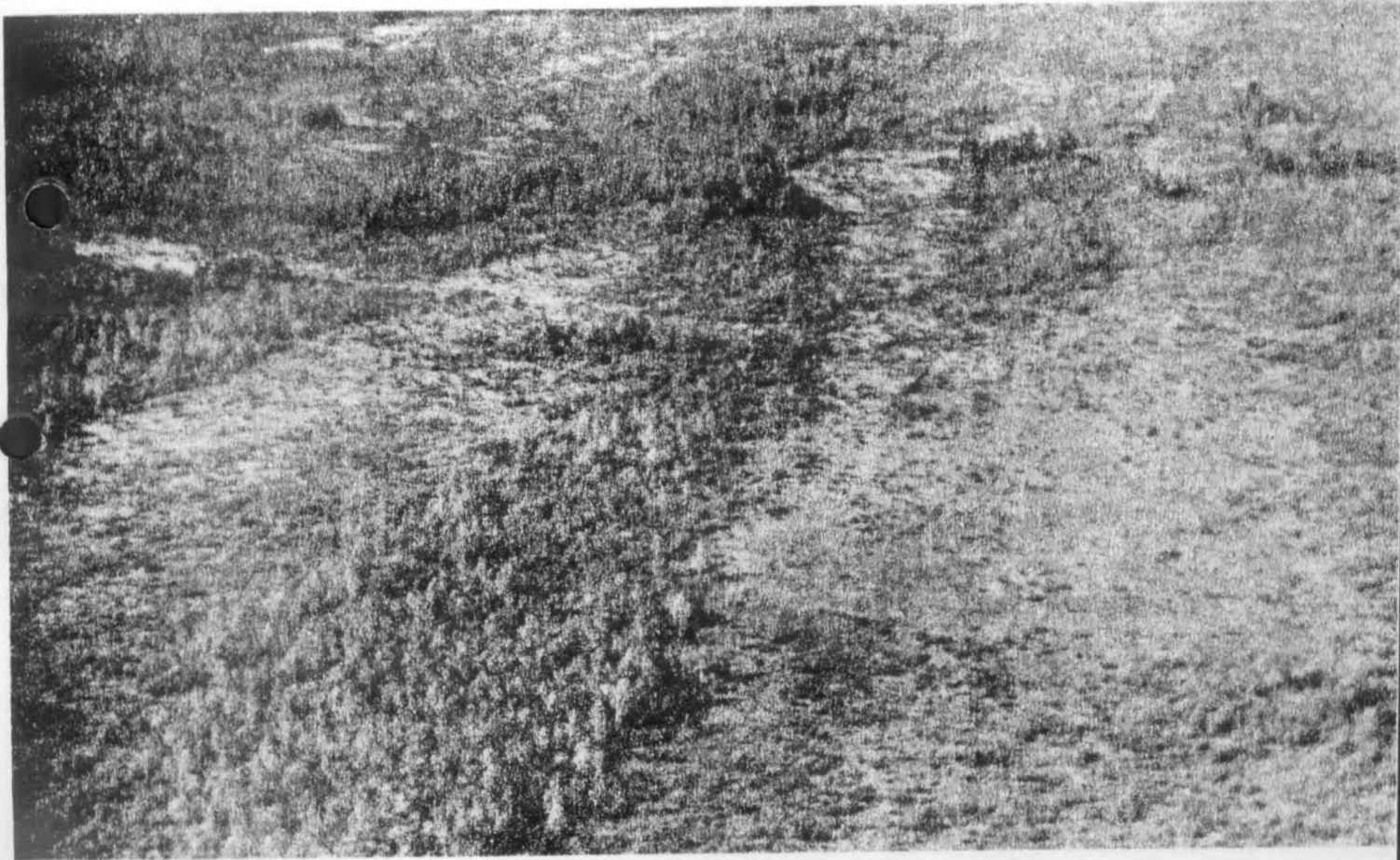
Supplementary to the habitat previously mentioned the islands contain the following important wildlife species: black spruce, trembling aspen, mountain maple, mountain ash, alder, red osier dogwood, elderberry, honeysuckle, raspberry, gooseberry, blueberry and a host of herbs.

The Seney Wilderness Study Area provides habitat for many species of wildlife including: deer, moose, bear, coyote, timber wolf, red fox, beaver, otter, mink, muskrat, bald eagle, osprey, Canada geese, black duck, mallard, baldpate, wood duck, bluewinged teal, spruce grouse, ruffed grouse, sharptailed grouse and a great variety of smaller birds.

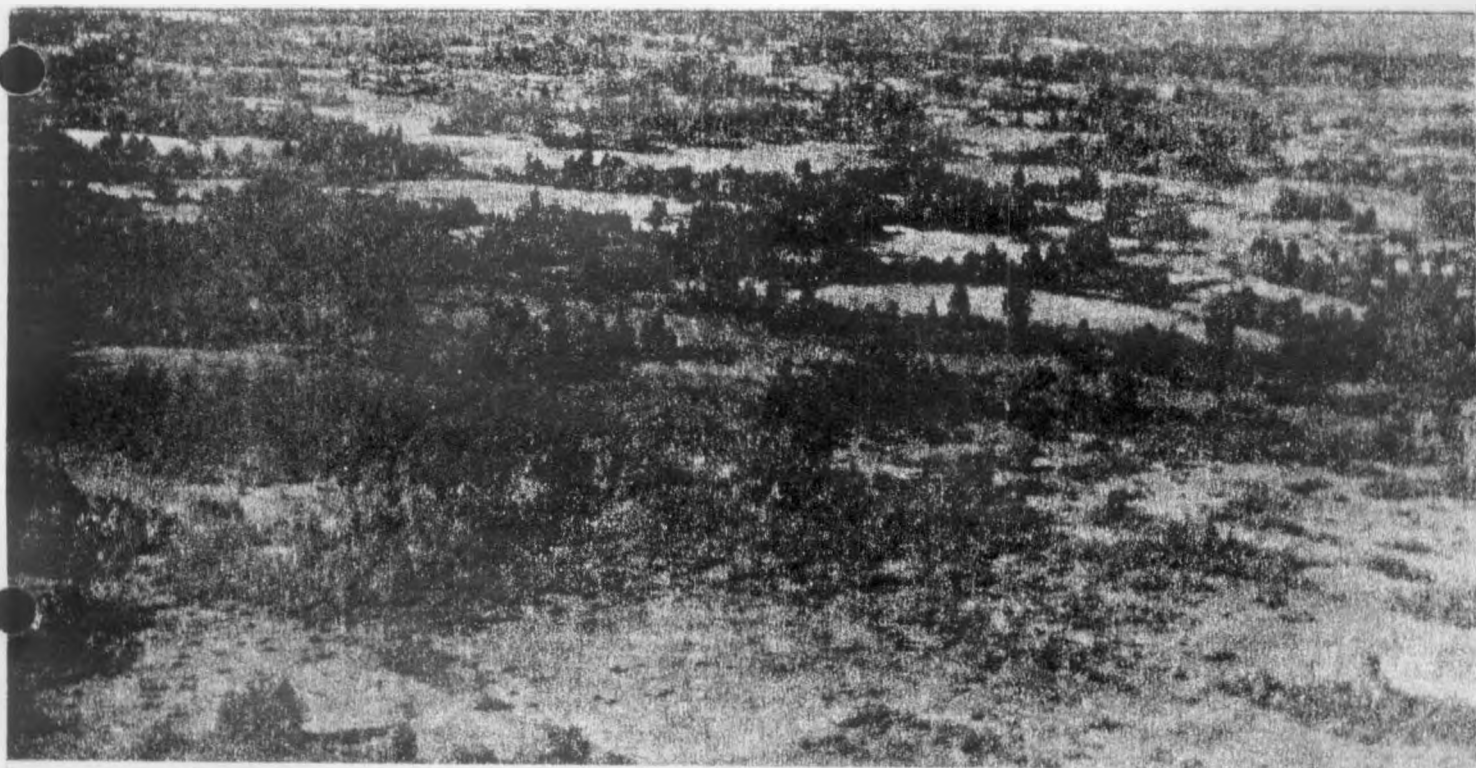
The bog islands are commonly dominated by a few red pine with some jack pine or aspen. They are usually fringed with thick clumps of alder and in some locations long stands of tamarac trail away on the tails of the islands.

Black spruce swamps are found along the edges of the bog while thin stands of aspen or jack pine with numerous shrubs share the burned over uplands with large, charred pine stumps.

The public is invited to visit these areas before the hearing. Additional information on both areas is available from the Refuge Manager, Seney National Wildlife Refuge, Seney, Michigan.



Fingers of tamarac in the bog - Seney



Fulterned Bogs at Seney

SOCIO-ECONOMIC CONSIDERATION

Little social or economic impact on the community is expected to result if the Huron Islands are classified as wilderness. The islands are a considerable distance from the access points and favorable weather must prevail for sailing to and landing at these rugged islands.

The Seney Unit, on the other hand, is easily accessible from along state highway 28 or from the Creighton Road. Some logging income may be lost locally, but this would eventually be compensated for by income from tourists responding to the appeal of the wilderness and other outdoor recreation oriented areas in the vicinity.

SUMMARY

The Huron Islands present rugged, pristine beauty in an isolated setting with the wild south shore of Lake Superior and the Huron Mountains as superb wilderness companions.

The Seney Wilderness Unit is very accessible and portrays an unusual formation of "string bogs". Wildlife management, particularly for bald eagles and timberwolves, should dominate the use of the area.

Both of these Wilderness Study Areas render delicate and fragile environments for wilderness consideration. They should be preserved for posterity but will require extremely careful guardianship to protect them from overuse.

Created in 1849, the Department of the Interior—America's Department of Natural Resources—is concerned with the management, conservation, and development of the Nation's water, fish, wildlife, mineral, forest, and park and recreational resources. It also has major responsibilities for Indian and Territorial affairs.

As the Nation's principal conservation agency, the Department works to assure that nonrenewable resources are developed and used wisely; that park and recreational resources are conserved for the future; and that renewable resources make their full contribution to the progress, prosperity, and security of the United States—now and in the future.

FILE 514
SAND

Huron Islands & Seney

HURON ISLANDS & SENEY
NATIONAL WILDLIFE REFUGES
MICHIGAN



UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
BUREAU OF SPORT FISHERIES AND WILDLIFE

SENEY NATIONAL WILDLIFE REFUGE WILDERNESS AREA

The Seney Wilderness Area is a unit of the Seney National Wildlife Refuge consisting of approximately 25,150 acres of undeveloped wildlife lands. The Seney National Wildlife Refuge, located in the Upper Peninsula of Michigan, west of the towns of Seney and Germfask, contains 95,455 acres with the Wilderness Area situated in the north-west quadrant bordered by State Highway M-28 on the north and the Creighton Truck Trail on the west.

The Seney Wilderness Area is a flat outwash plain from a recent glacier which was in turn reworked by a glacial lake then became a dry sand plain as result of drought. During drought periods the sands were blown into dunes which became extinct and covered with trees and brush during the moist period which presently exists. The extinct sand dunes now form tree covered islands in a vast bog creating a patterned area called Strangmoor Bogs, or "string bogs". Two thirds of the Wilderness Area is characterized by this sub-arctic formation which is rare at this latitude. The remainder of the Wilderness Area was once a white pine forest which was logged off before the turn of the century and then burned over many times. It is now covered with large pine stumps, second growth aspen and jack pine, and a variety of less prominent species.

Approximately 9,000 acres of the most typical "string bogs" formation has been designated the "Strangmoor Bog Registered Natural Landmark".

Climate of the Seney Wilderness Area is characterized by cold winters and cool summers, with temperature extremes from -47° to 103° . Precipitation averages 31 inches annually with about one-half received as snow in the winter months.

The Wilderness Area provides habitat for many species of wildlife including deer, moose, bear, coyote, timber wolf, red fox, beaver, otter, mink, muskrat, bald eagle, osprey, Canada geese, mallard, black duck, wood duck, blue-winged teal, spruce grouse, ruffed grouse, sharp-tailed grouse, and a great variety of songbirds.

The bog islands are commonly dominated by a few red pine with some jack pine or aspen. They are usually fringed with thick clumps of alder, and in some locations long stands of tamarac trail away on the tails of the islands.

Black spruce swamps are found along the edges of the bog while thin stands of aspen or jack pine with numerous shrubs share the burned over uplands with large, charred pine stumps.

The Seney Wilderness Area is easily accessible. Management for bald eagles and the endangered timber wolf should dominate the use of the area. National Wildlife Refuge Wilderness Area designation will protect this delicate and fragile environment for posterity, but extremely careful guardianship will be necessary to protect it from overuse.

HURON ISLANDS NATIONAL WILDLIFE REFUGE WILDERNESS AREA

The Huron Islands Wilderness Area comprises the entire Huron Islands National Wildlife Refuge, which is composed of a group of eight islands totaling 147 acres, located three miles off the south shore of Lake Superior, about 40 miles east of Houghton, Michigan.

The U.S. Fish and Wildlife Service has primary jurisdiction on only 22 acres and secondary jurisdiction over the remainder. The largest island, East Huron, is held by the Corps of Army Engineers as a potential site for quarrying rock to construct breakwaters, and the second largest island, West Huron or Lighthouse, is under the jurisdiction of the Coast Guard which until recently maintained a station, lighthouse and boathouse. The station was abandoned in 1972 when the navigation light was automated.

The Lighthouse on West Huron, or Lighthouse Island, has been in operation as a navigational aid to warn shipping of the rocky islands since 1877. The building was originally constructed in 1868 and is now listed in the National Register of Historic Places.

The Huron Islands are composed of pink and gray granite upthrusts covered with trees, shrubs and herbaceous plants, and exposed rock which is barren or covered with lichens and mosses. Exposed rock frequently shows deep glacial striae. The rocks rise nearly 200 feet above Lake Superior offering steep cliffs on the south and rounded glacier and wave worn rock surfaces on the ends and north sides.

Red and White pines, balsam fir, white birch, white cedar and numerous other varieties of tree species grow in the rock crevices and on accumulated soil in scattered abandon, showing the ravages of wind, ice and sleet while often persisting on precarious sites with gnarled picturesque effects. Many rocks are coated with folios lichens on their sides, or deep beds of reindeer moss on their flat upper surfaces which depict the fragile characteristics of the wild beauty of the islands.

The small, almost barren rock islands on the eastern extremities of the group support nesting colonies of herring gulls, probably the most numerous species of wildlife on the Hurons. Other species common to the islands are snowshoe hare, woodland deer mouse, meadow vole, raven, blue jay, tree swallow and a host of additional small perching birds. Evidence of past use of the islands by bald eagles, black bears, coyotes and raccoons has been observed.

The Huron Islands present rugged pristine beauty in an isolated setting, with the wild south shore of Lake Superior as a superb wilderness companion. The National Wildlife Refuge Wilderness Area designation will protect this delicate and fragile environment for future generations.

SPECIAL REGULATIONS -- USE OF WILDERNESS AREAS

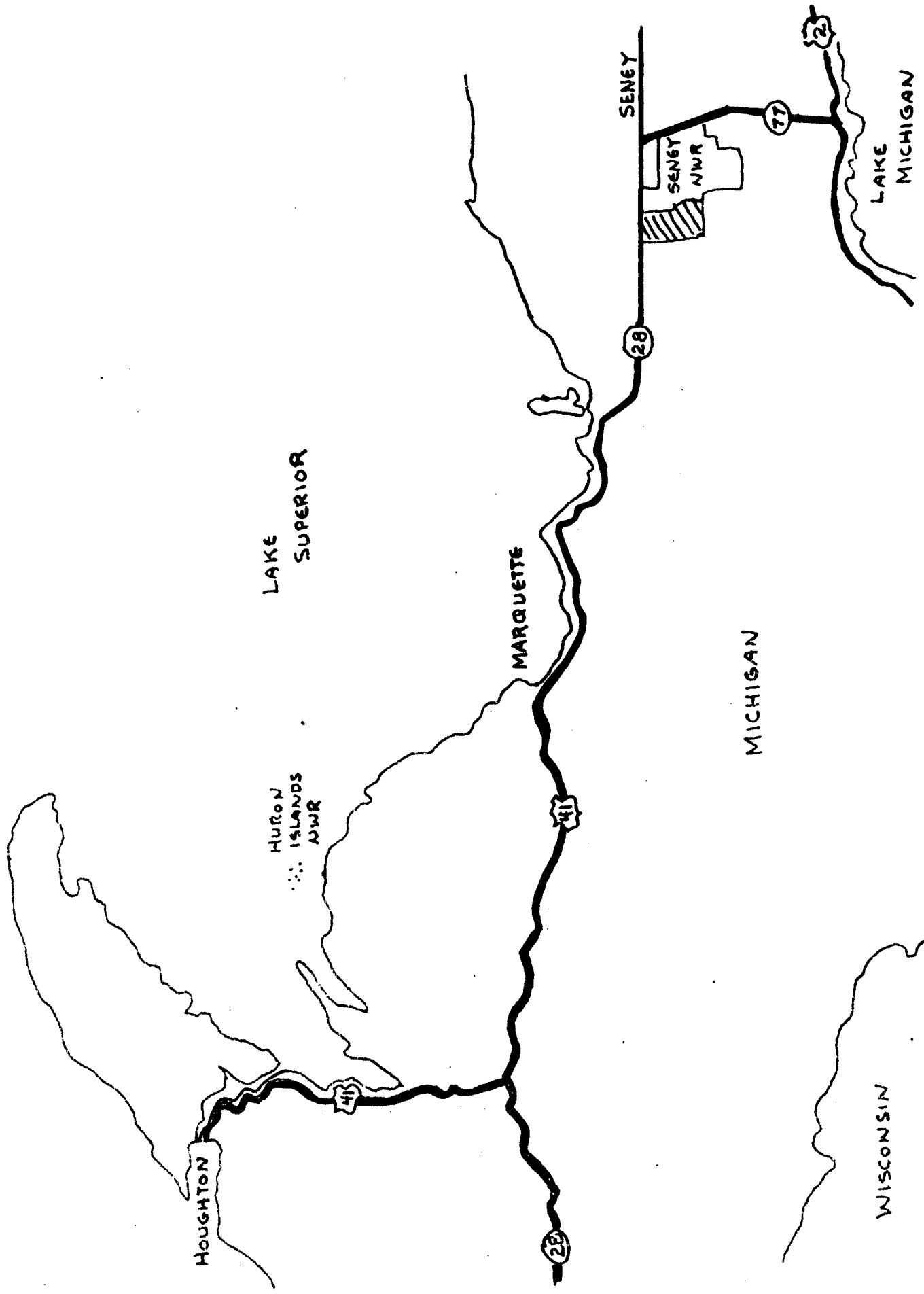
SENEY WILDERNESS AREA:

1. Open to hiking and nature study from August 1 through March 14 during daylight hours only. Registration at Refuge Headquarters required for the period August 1 through September 14.
2. Open to small game hunting September 15 through February 28, and to deer hunting November 15 through 30.
3. Camping prohibited except by Special Use Permit to bonafide biologists, botanists, or other qualified applicants in conjunction with approved studies. Primitive type camping only when permitted.

HURON ISLANDS WILDERNESS AREA:

1. Only West Huron Island (Lighthouse Island) open to public, during daylight hours, for hiking and nature study.
2. All remaining islands closed to public, except by Special Use Permit to bonafide biologists, botanists, or other qualified applicants in conjunction with approved studies. Exceptions are emergency landings by boats in distress.
3. Camping is prohibited on all islands, except that bonafide biologists, botanists, and other qualified applicants may be permitted prescribed primitive-type camping only on West Huron Island (Lighthouse Island) by Special Use Permit, in conjunction with approved studies.

PERMITS OBTAINABLE FROM: Refuge Manager
Seney National Wildlife Refuge
Seney, Michigan 49883



Houghton

HURON ISLANDS
NWR

LAKE SUPERIOR

MARQUETTE

SENEY

SENEY
NWR

MICHIGAN

WISCONSIN

LAKE MICHIGAN

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SIGNATURE PAGE

Submitted By:

John R. Frye
(Signature)

John R. Frye
Refuge Manager

(Title)

Date: December, 8, 1978

Approved, Area Office:

Date: _____

(Signature)

(Title)

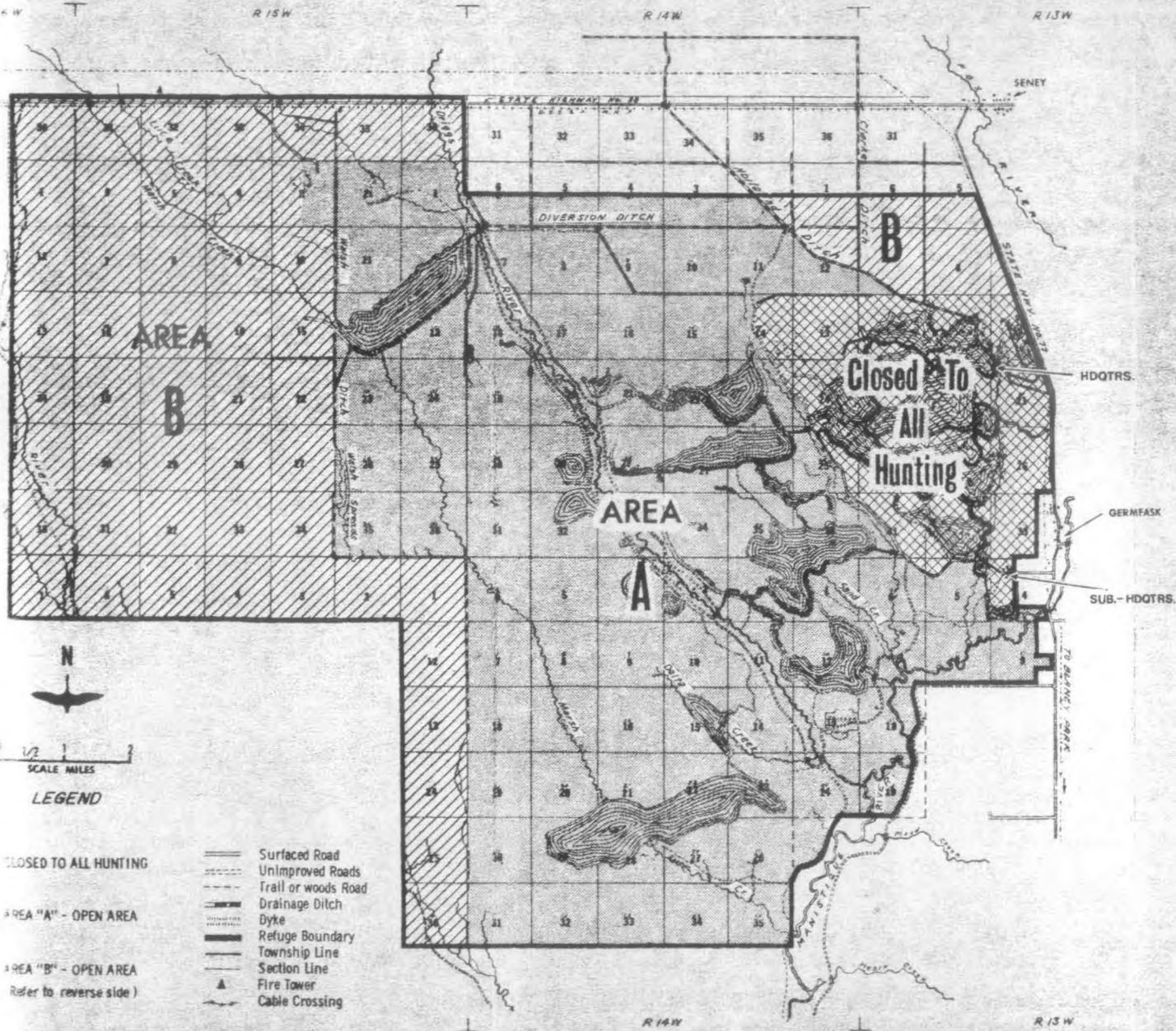
Approved, Regional Office:

Date: _____

(Signature)

(Title)

SENEY NATIONAL WILDLIFE REFUGE



KNOW YOUR REFUGE SIGNS



Refuge boundary



Hunting allowed beyond this sign.



No entry of any kind allowed beyond this sign.



Hunting permitted beyond this sign.



- LEGEND**
- Surfacted Road
 - - - Unimproved Roads
 - - - Trail or woods Road
 - - - Drainage Ditch
 - - - Dyke
 - - - Refuge Boundary
 - - - Township Line
 - - - Section Line
 - ▲ Fire Tower
 - Cable Crossing
- CLOSED TO ALL HUNTING
- AREA "A" - OPEN AREA
- AREA "B" - OPEN AREA
(Refer to reverse side)

SENEY NATIONAL WILDLIFE REFUGE

SCHOOLCRAFT COUNTY, MICHIGAN

UNITED STATES
DEPARTMENT OF THE INTERIOR

FISH AND WILDLIFE SERVICE
BUREAU OF SPORT FISHERIES AND WILDLIFE

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R.15 W. R.14 W.

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T. 45 N.

T. 45 N.

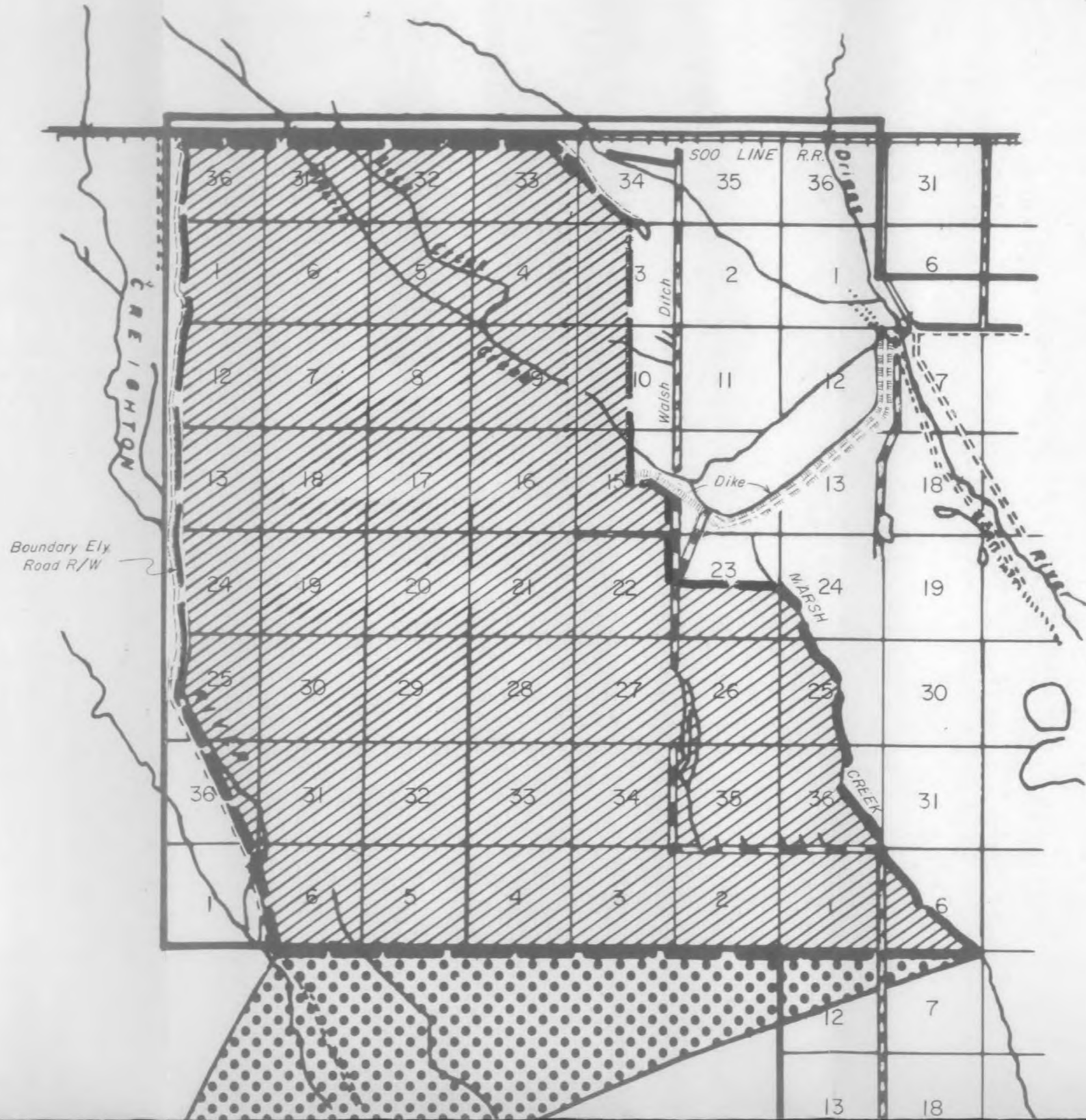
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T. 46 N.

T. 45 N.

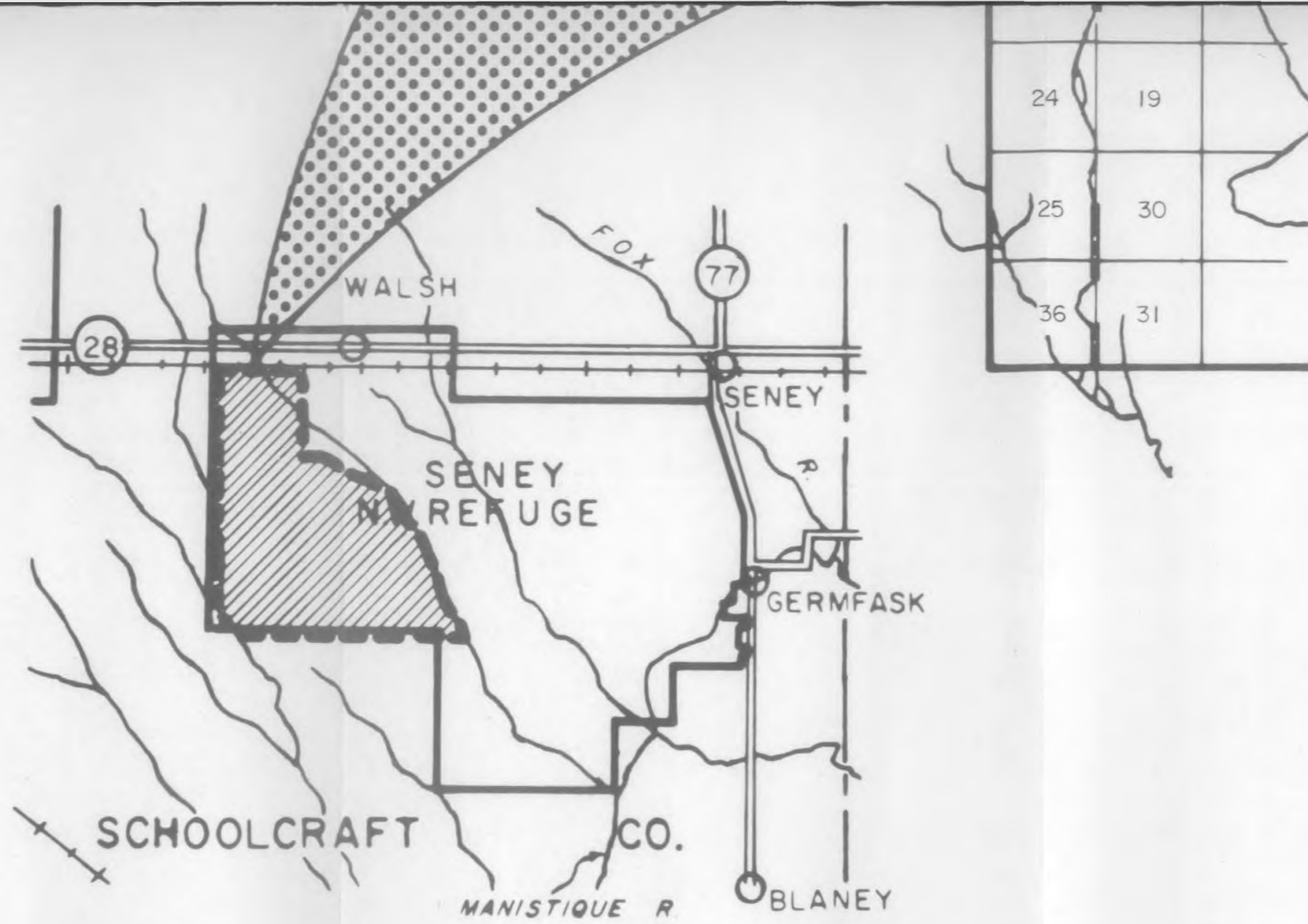
T. 45 N.



T. 44 N.



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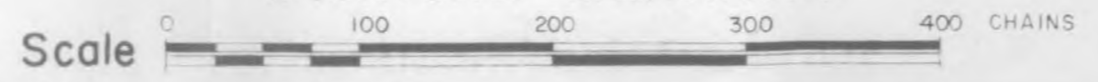
SCALE



 SENEY WILDERNESS
 OCTOBER 23, 1970 (PUBLIC LAW NO. 91-504)
 REFUGE BOUNDARY

R.16 W. R.15 W. R.15 W. R.14 W.

MICHIGAN MERIDIAN



6	5	4	3	2	1
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13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36

TOWNSHIP
DIAGRAM

TRUE NORTH
MAGNETIC N

MEAN
DECLINATION
1960

COMPILED IN THE DIVISION OF ENGINEERING
FROM SURVEYS BY THE B L M.

MINNEAPOLIS, MINN

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WILDERNESS MANAGEMENT PLAN

HURON ISLANDS NATIONAL WILDLIFE REFUGE

HURON ISLANDS WILDERNESS

UNITED STATES DEPARTMENT OF THE INTERIOR

FISH AND WILDLIFE SERVICE

SENEY, MICHIGAN 49883

December 7, 1978

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HURON ISLANDS WILDERNESS MANAGEMENT PLAN

I. IntroductionA. Refuge Establishment

The Huron Islands National Wildlife Refuge was established under Executive Order No. 7795, dated January 21, 1938, as a refuge and breeding ground for the migratory birds and other wildlife. This order revoked the Executive Order of October 10, 1905 which first authorized protection of the islands by establishment of the Huron Islands Reservation for the Department of Agriculture.

B. Refuge Description

The Huron Islands National Wildlife Refuge is composed of a group of eight islands, totalling 147 acres, located three miles off the south shore of Lake Superior, about 40 miles east of Houghton, Michigan.

The Service has primary jurisdiction on only 53 acres and secondary jurisdiction over the remaining 94 acres. The largest of the islands, East Huron, is held by the Corps of Army Engineers as a potential quarry site for breakwater construction. The U.S. Coast Guard has primary jurisdiction on 11 acres of West Huron, or Lighthouse, Island and until recently maintained the lighthouse, manned station, and boathouse. The navigation aid was automated, and station abandoned, in 1972. In 1977 the Coast Guard declared 31 acres of the island surplus and it was transferred to the Service in 1978.

The Huron Islands are composed of pink and gray granite upthrusts covered with trees, shrubs and herbaceous plants, and exposed rock which is barren or covered with lichens and mosses. Exposed rock frequently shows deep glacial striae. The rocks rise nearly 200 feet above Lake Superior offering steep cliffs on the south and rounded glacier and wave worn rock surfaces on the ends and north sides.

Red and White pines, balsam fir, white birch, white cedar and numerous other varieties of tree species grow in the rock crevices and on accumulated soil in scattered abandon, showing the ravages of wind, ice and sleet while often persisting on precarious sites with gnarled picturesque effects. Many rocks are coated with folios lichens on their sides, or deep beds of reindeer moss on their flat upper surfaces which depict the fragile characteristics of the wild beauty of the islands.

C. Refuge Objectives

Huron Islands National Wildlife Refuge was established as a refuge and breeding ground for migratory birds and other wildlife. The isolated location of the refuge with difficult and often hazardous access has dictated limited management potential. Objectives have been primarily no management to maintain the islands in their primitive natural state.

D. Relationship of Wilderness to Objectives and Programs

Establishment of the Wilderness Area is within and supplemental to the purposes of the Huron Islands National Wildlife Refuge. The wilderness will continue to be "managed" as in the past to

preserve the wilderness character.

Management was minimal prior to wilderness designation and public use relatively minor and limited to occasional picnicking on islands by boaters and fishermen.

E. Wilderness Area Establishment

The Huron Islands Wilderness Proposal was included in the 1970 Omnibus Wilderness Act (P.L. 91-504) which was signed into law prior to the January 2, 1970 adjournment of the 91st Congress.

II. Description Of The Wilderness Area

A. Word Description of Legal Boundary

The following-described eight (8) islands are located in Michigan, Marquette County, approximately three (3) miles northerly of the southerly shore of Lake Superior, forty (40) miles easterly of the city of Hancock, Michigan, being all of the land described in Executive Order No. 7795, dated January 21, 1938, described according to the public land surveys:

Township Fifty-Three (53) North, Range Twenty-Nine (29) West, Michigan Meridian: All of the islands located in Sections twenty-seven (27), Twenty-eight (28), Twenty-nine (29), Thirty-four (34), and Thirty-five (35), containing in the aggregate approximately 147 acres.

III. Management

A. Wildlife Inventories

Inventories will be limited to periodic aerial reconnaissance to monitor status of the gull nesting colonies and bald eagle surveys.

B. Other

Primary jurisdiction of the two largest islands, East Huron and West Huron, is by other agencies. The Corps of Army Engineers holds East Huron Island as a potential rock quarry site and the U.S. Coast Guard has West Huron Island as an operating, automated navigation aid. Their cooperation in the preservation of the wilderness character of the islands in their activities has been requested.

IV. Public Use

A. General

1. Visitation

Public use has been, and will continue to be, slight due to the access problems. Unauthorized public use is and will continue to be a problem in the future. Close supervision and enforcement of Wilderness Regulations is impossible inasmuch as the area is a satellite refuge located more than 150 miles from Seney headquarters.

Current and projected public use is limited sport fishing around the islands and associated picnicking on the islands. Vandalism of the U.S. Coast Guard facility is a current public use problem.

2. Visitor Controls

a. Carrying Capacity

The maximum carrying capacity is estimated to be two (2) persons per island if the delicate island ecosystems are to be protected from irreversible environmental damage.

b. Period of Use

Public use is restricted by Department, Service and Refuge Regulations to daylight hours only and overnight camping is prohibited except in a boating emergency situation.

3. Visitor Control

- a. Only West Huron (Lighthouse) Island is open to the public, by permit only, during daylight hours for hiking and nature study.
- b. All other islands closed to the public with exceptions of emergency landings by boats in distress, and Special Permit to qualified individuals for approved biological, botanical, historic, archeological, and/or geologic studies.
- c. Camping prohibited on all islands except primitive type camping may be permitted on West Huron (Lighthouse) Island only, by Special Permit, in conjunction with an approved study.

B. Specific Activities

1. Hiking, Nature Study and Wildlife Observation

Current and projected use is minimal due to difficult access problems. Activities permitted on daily basis, with no camping, and by daily permit for daylight hours only.

2. Other

Periodic visits to West Huron Island are scheduled by the U.S. Coast Guard for maintenance of the automated navigation aids. Because of their primary jurisdiction we can only request their cooperation in the limitation of activities to prevent environmental damage.

C. Public Use Facilities and Improvements

There are no public use facilities or improvements at the present time, and none are planned for the future.

Access is only by boat from the mainland and is generally restricted to the few boat landing sites present around the rocky islands. The old Coast Guard dock is being destroyed by nature and will not be replaced.

D. Historical and Archeological sites

1. Historical Sites

The Lighthouse on West Huron, or Lighthouse Island was originally constructed in 1868 as a navigational aid to warn Lake Superior shipping of the rocky islands. The Lighthouse was designated a National Historic Site and entered in the National Register of Historic Places on September 2, 1975.

This building remains the property of the U.S. Coast Guard and has been severely vandalized in recent years. Current Wilderness Area Regulations, if enforced, would protect the Lighthouse from further vandalism.

2. Archeological Sites

There are no known archeological sites on the islands.

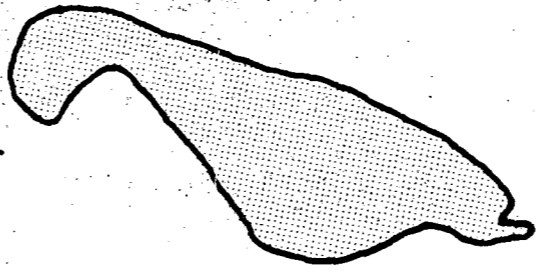
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HURON ISLAND
LIGHTHOUSE



HURON



ISLANDS

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35



NORTH

V. Public Health and Safety

A. Potential Threats or Hazards

None have been identified.

B. Search and Rescue

Because of the island character of the Wilderness Area, all search and rescue efforts would be coordinated with the U.S. Coast Guard. Initial contact would be with the U.S. Coast Guard station at Hancock, Michigan.

VI. Research

There are no current studies, planned or underway, and no research needs have been identified.

VII. Other Considerations

A. Placement of Navigational Aids

Automated navigational light and foghorn equipment located on Lighthouse Island require periodic maintenance by U.S. Coast Guard personnel. The Huron Islands light has been in continuous operation since 1877.

B. Quarry Operations

The Corps of Army Engineers has primary jurisdiction of East Huron Island for quarrying of rock to construct breakwaters in Lake Superior harbors. No quarry operations are contemplated in the next 20 years.

VIII. Funds and Personnel

To date the annual costs in funds and manpower for administration of the Wilderness Area are minimal and insignificant in overall refuge operation.

If an adequate job of patrol and enforcement of wilderness regulations to protect the wilderness integrity is to be accomplished a minimum requirement is acquisition of suitable watercraft and assignment of personnel to periodic patrol of the island group. This annual cost is estimated to be \$5,000 over and above normal refuge operations.

IX. Plan Currency

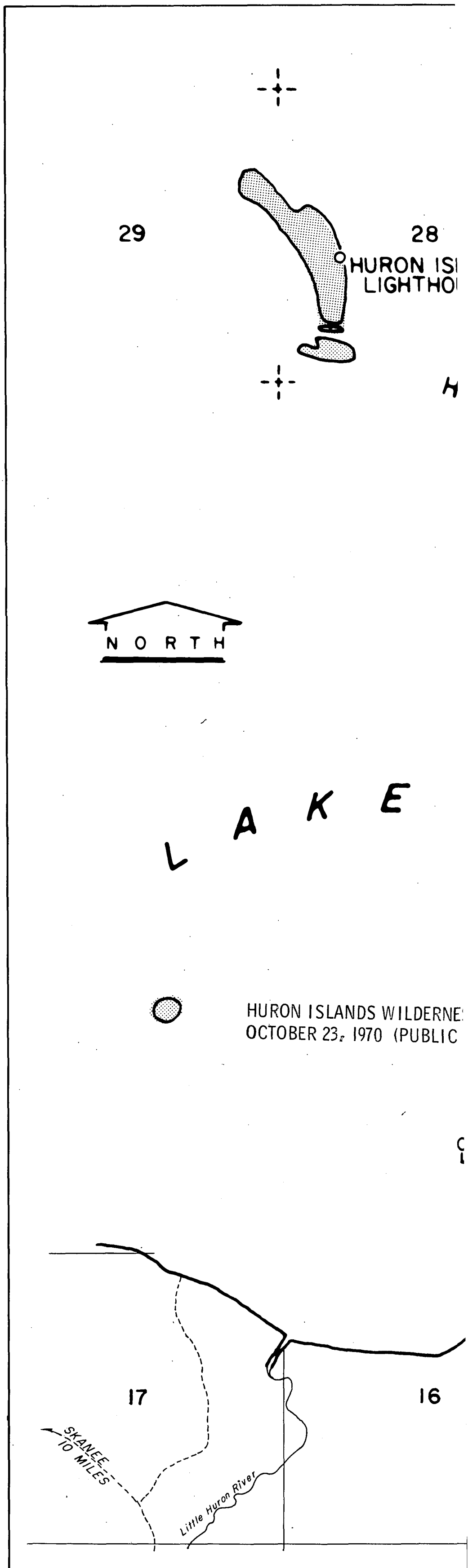
This plan will be reviewed annually and revised and/or updated as appropriate.

X. Appendix

1. Public Law 88-577
2. Public Law 91-504 -- Not Available
3. Departmental Wilderness Regulations -- Not Available
4. Service Wilderness Regulations. Code of Federal Regulations,
Title 50, Part 35 -- Available at Refuge Office
5. Refuge Wilderness Regulations and Study Brochure
6. Photographs of Wilderness Area -- Available from Region III
Office
7. Environmental Impact Statement -- None Written
8. Public Hearing Record -- Available at Refuge Office
9. Congressional Hearing Record, Serial Number 91-25 -- Available
at Refuge Office

HURON

UNITED STATES
DEPARTMENT OF THE INTERIOR



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N.

T.
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N.



L A K E

HURON ISLANDS WILDERNE
OCTOBER 23, 1970 (PUBLIC

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16

SKANEE
TO MILES

Little Huron River

COMPILED IN THE DIVISION OF ENGINEERING
FROM SURVEYS BY THE B L M

MINNEAPOLIS, MINN. MARCH 1971

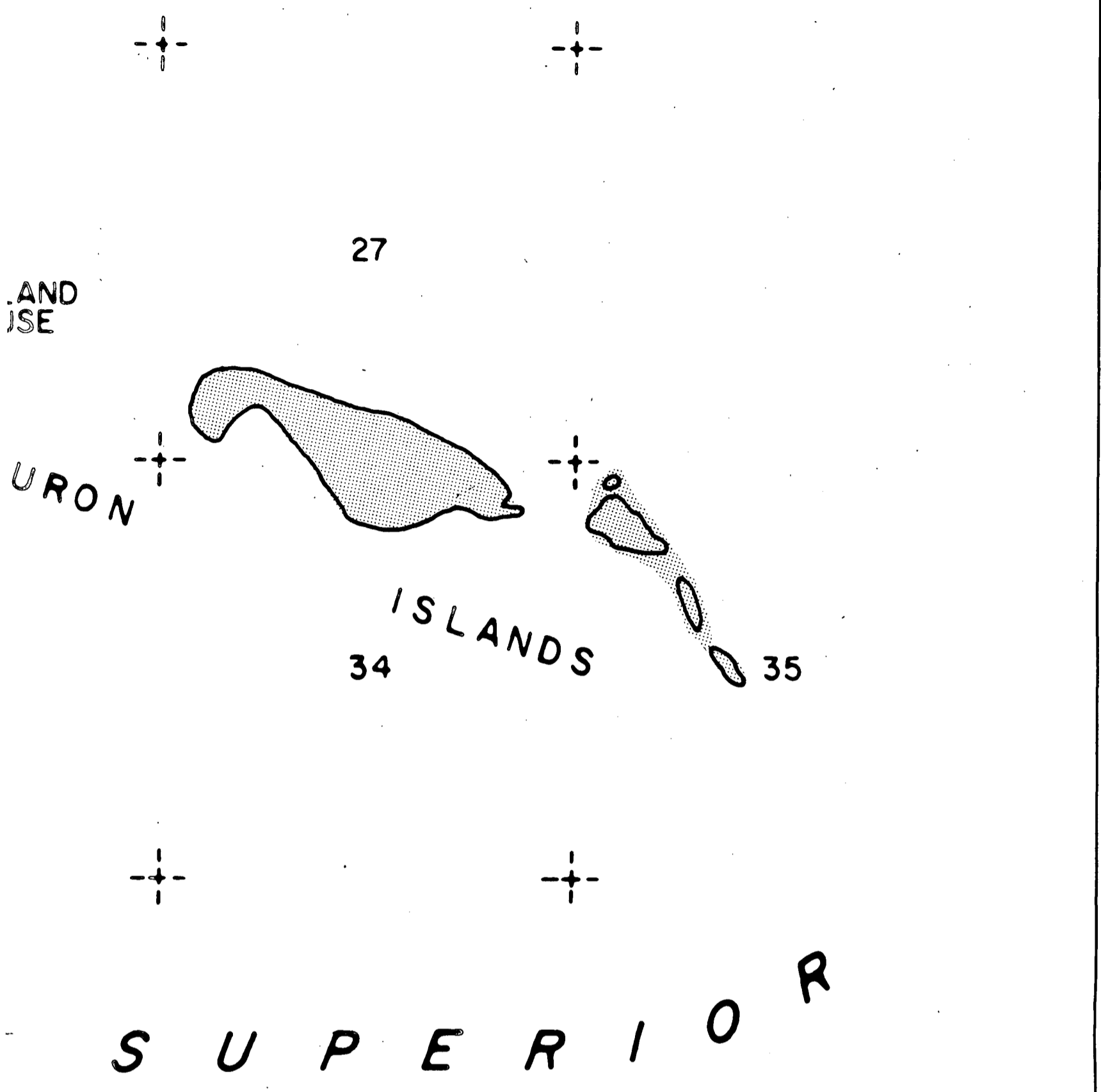
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NATIONAL WILDLIFE REFUGE

MARQUETTE COUNTY, MICHIGAN

R. 29 W.

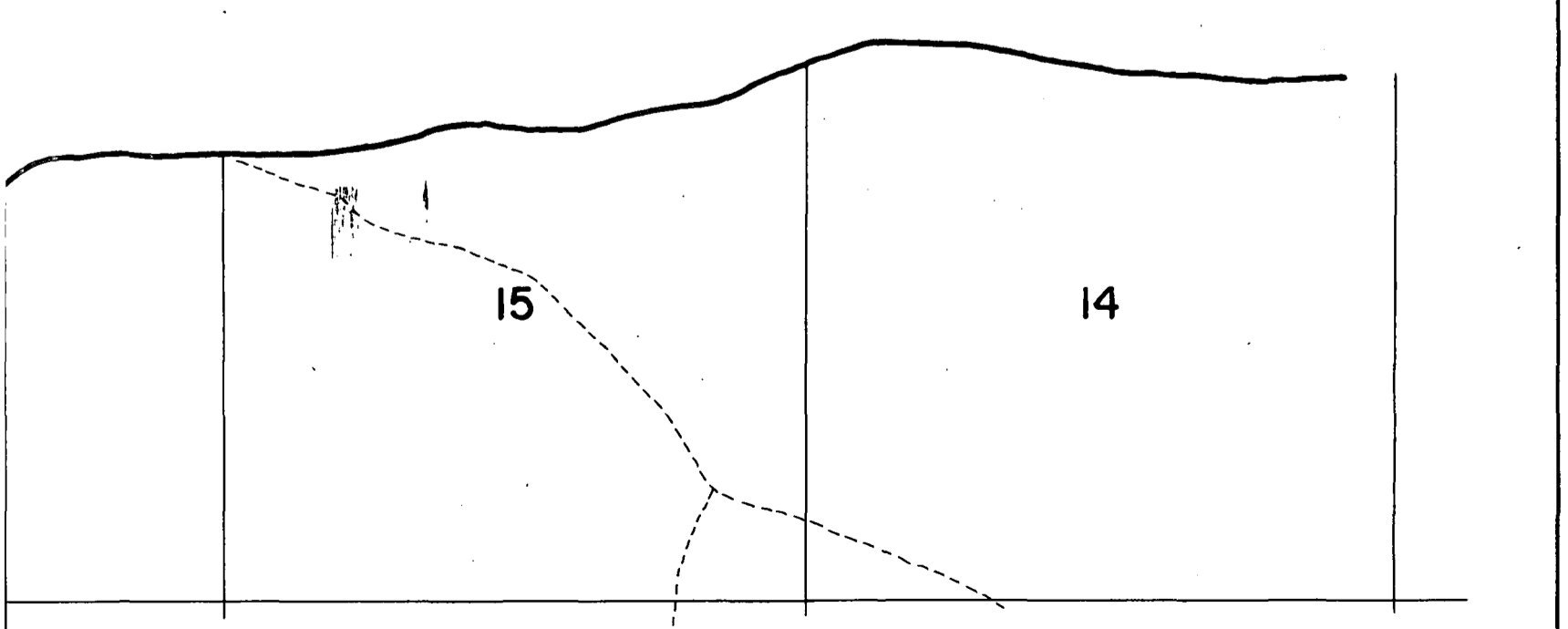
FISH AND WILDLIFE SERVICE
BUREAU OF SPORT FISHERIES AND WILDLIFE



T. 53 N.
T. 52 N.

SS
LAW NO. 91-504)

1/2 MILE



R. 29 W.

MICHIGAN MERIDIAN

24 48 72 96 CHAINS

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TOWNSHIP
DIAGRAM

TRUE NORTH
MAGNETIC N

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DECLINATION
1960

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Public Law 88-577
88th Congress, S. 4
September 3, 1964

An Act

To establish a National Wilderness Preservation System for the permanent good of the whole people, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Wilderness Act.

SHORT TITLE

SECTION 1. This Act may be cited as the "Wilderness Act".

WILDERNESS SYSTEM ESTABLISHED STATEMENT OF POLICY

SEC. 2. (a) In order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition, it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness. For this purpose there is hereby established a National Wilderness Preservation System to be composed of federally owned areas designated by Congress as "wilderness areas", and these shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness; and no Federal lands shall be designated as "wilderness areas" except as provided for in this Act or by a subsequent Act.

(b) The inclusion of an area in the National Wilderness Preservation System notwithstanding, the area shall continue to be managed by the Department and agency having jurisdiction thereover immediately before its inclusion in the National Wilderness Preservation System unless otherwise provided by Act of Congress. No appropriation shall be available for the payment of expenses or salaries for the administration of the National Wilderness Preservation System as a separate unit nor shall any appropriations be available for additional personnel stated as being required solely for the purpose of managing or administering areas solely because they are included within the National Wilderness Preservation System.

78 STAT. 890.

78 STAT. 891.

DEFINITION OF WILDERNESS

(c) A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geo-

logical, or other features of scientific, educational, scenic, or historical value.

NATIONAL WILDERNESS PRESERVATION SYSTEM—EXTENT OF SYSTEM

SEC. 3. (a) All areas within the national forests classified at least 30 days before the effective date of this Act by the Secretary of Agriculture or the Chief of the Forest Service as "wilderness", "wild", or "canoe" are hereby designated as wilderness areas. The Secretary of Agriculture shall—

(1) Within one year after the effective date of this Act, file a map and legal description of each wilderness area with the Interior and Insular Affairs Committees of the United States Senate and the House of Representatives, and such descriptions shall have the same force and effect as if included in this Act: *Provided, however,* That correction of clerical and typographical errors in such legal descriptions and maps may be made.

(2) Maintain, available to the public, records pertaining to said wilderness areas, including maps and legal descriptions, copies of regulations governing them, copies of public notices of, and reports submitted to Congress regarding pending additions, eliminations, or modifications. Maps, legal descriptions, and regulations pertaining to wilderness areas within their respective jurisdictions also shall be available to the public in the offices of regional foresters, national forest supervisors, and forest rangers.

Classification.

Presidential recommendation to Congress.

Congressional approval.

78 STAT. 891.
78 STAT. 892.

(b) The Secretary of Agriculture shall, within ten years after the enactment of this Act, review, as to its suitability or nonsuitability for preservation as wilderness, each area in the national forests classified on the effective date of this Act by the Secretary of Agriculture or the Chief of the Forest Service as "primitive" and report his findings to the President. The President shall advise the United States Senate and House of Representatives of his recommendations with respect to the designation as "wilderness" or other reclassification of each area on which review has been completed, together with maps and a definition of boundaries. Such advice shall be given with respect to not less than one-third of all the areas now classified as "primitive" within three years after the enactment of this Act, not less than two-thirds within seven years after the enactment of this Act, and the remaining areas within ten years after the enactment of this Act. Each recommendation of the President for designation as "wilderness" shall become effective only if so provided by an Act of Congress. Areas classified as "primitive" on the effective date of this Act shall continue to be administered under the rules and regulations affecting such areas on the effective date of this Act until Congress has determined otherwise. Any such area may be increased in size by the President at the time he submits his recommendations to the Congress by not more than five thousand acres with no more than one thousand two hundred and eighty acres of such increase in any one compact unit; if it is proposed to increase the size of any such area by more than five thousand acres or by more than one thousand two hundred and eighty acres in any one compact unit the increase in size shall not become effective until acted upon by Congress. Nothing herein contained shall limit the President in proposing, as part of his recommendations to Congress, the alteration of existing boundaries of primitive areas or recommending the addition of any contiguous area of national forest lands predominantly of wilderness value. Notwithstanding any other provisions of this Act, the Secretary of Agriculture may complete his review and delete such area as may be necessary, but not to exceed seven thousand acres, from the southern tip of the Gore Range-Eagles Nest Primitive Area.

Colorado, if the Secretary determines that such action is in the public interest.

(c) Within ten years after the effective date of this Act the Secretary of the Interior shall review every roadless area of five thousand contiguous acres or more in the national parks, monuments and other units of the national park system and every such area of, and every roadless island within, the national wildlife refuges and game ranges, under his jurisdiction on the effective date of this Act and shall report to the President his recommendation as to the suitability or nonsuitability of each such area or island for preservation as wilderness. The President shall advise the President of the Senate and the Speaker of the House of Representatives of his recommendation with respect to the designation as wilderness of each such area or island on which review has been completed, together with a map thereof and a definition of its boundaries. Such advice shall be given with respect to not less than one-third of the areas and islands to be reviewed under this subsection within three years after enactment of this Act, not less than two-thirds within seven years of enactment of this Act, and the remainder within ten years of enactment of this Act. A recommendation of the President for designation as wilderness shall become effective only if so provided by an Act of Congress. Nothing contained herein shall, by implication or otherwise, be construed to lessen the present statutory authority of the Secretary of the Interior with respect to the maintenance of roadless areas within units of the national park system.

Report to President.

Presidential recommendation to Congress.

Congressional approval.

(d) (1) The Secretary of Agriculture and the Secretary of the Interior shall, prior to submitting any recommendations to the President with respect to the suitability of any area for preservation as wilderness—

Suitability.

(A) give such public notice of the proposed action as they deem appropriate, including publication in the Federal Register and in a newspaper having general circulation in the area or areas in the vicinity of the affected land;

Publication in Federal Register.

(B) hold a public hearing or hearings at a location or locations convenient to the area affected. The hearings shall be announced through such means as the respective Secretaries involved deem appropriate, including notices in the Federal Register and in newspapers of general circulation in the area: *Provided*, That if the lands involved are located in more than one State, at least one hearing shall be held in each State in which a portion of the land lies;

Hearings.

Publication in Federal Register.

78 STAT. 892.

78 STAT. 893.

(C) at least thirty days before the date of a hearing advise the Governor of each State and the governing board of each county, or in Alaska the borough, in which the lands are located, and Federal departments and agencies concerned, and invite such officials and Federal agencies to submit their views on the proposed action at the hearing or by no later than thirty days following the date of the hearing.

(2) Any views submitted to the appropriate Secretary under the provisions of (1) of this subsection with respect to any area shall be included with any recommendations to the President and to Congress with respect to such area.

(e) Any modification or adjustment of boundaries of any wilderness area shall be recommended by the appropriate Secretary after public notice of such proposal and public hearing or hearings as provided in subsection (d) of this section. The proposed modification or adjustment shall then be recommended with map and description thereof to the President. The President shall advise the United States Senate and the House of Representatives of his recommendations with respect to such modification or adjustment and such recom-

Proposed modification.

mendations shall become effective only in the same manner as provided for in subsections (b) and (c) of this section.

USE OF WILDERNESS AREAS

SEC. 4. (a) The purposes of this Act are hereby declared to be within and supplemental to the purposes for which national forests and units of the national park and national wildlife refuge systems are established and administered and—

16 USC 475.
16 USC 528-531.

(1) Nothing in this Act shall be deemed to be in interference with the purpose for which national forests are established as set forth in the Act of June 4, 1897 (30 Stat. 11), and the Multiple-Use Sustained-Yield Act of June 12, 1960 (74 Stat. 215).

16 USC 577-577b.

16 USC 577c-577h.
16 USC 577d-1,
577g-1, 577h.

(2) Nothing in this Act shall modify the restrictions and provisions of the Shipstead-Nolan Act (Public Law 539, Seventy-first Congress, July 10, 1930; 46 Stat. 1020), the Thyse-Blatnik Act (Public Law 733, Eightieth Congress, June 22, 1948; 62 Stat. 568), and the Humphrey-Thyse-Blatnik-Andresen Act (Public Law 607, Eighty-fourth Congress, June 22, 1956; 70 Stat. 326), as applying to the Superior National Forest or the regulations of the Secretary of Agriculture.

39 Stat. 535.
16 USC 1 et seq.

41 Stat. 1063.
49 Stat. 836.

(3) Nothing in this Act shall modify the statutory authority under which units of the national park system are created. Further, the designation of any area of any park, monument, or other unit of the national park system as a wilderness area pursuant to this Act shall in no manner lower the standards evolved for the use and preservation of such park, monument, or other unit of the national park system in accordance with the Act of August 25, 1916; the statutory authority under which the area was created, or any other Act of Congress which might pertain to or affect such area, including, but not limited to, the Act of June 8, 1906 (34 Stat. 225; 16 U.S.C. 432 et seq.); section 3(2) of the Federal Power Act (16 U.S.C. 796(2)); and the Act of August 21, 1935 (49 Stat. 666; 16 U.S.C. 461 et seq.).

~~78 STAT. 893.~~
78 STAT. 894.

(b) Except as otherwise provided in this Act, each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area and shall so administer such area for such other purposes for which it may have been established as also to preserve its wilderness character. Except as otherwise provided in this Act, wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.

PROHIBITION OF CERTAIN USES

(c) Except as specifically provided for in this Act, and subject to existing private rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by this Act and, except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area.

SPECIAL PROVISIONS

(d) The following special provisions are hereby made:

(1) Within wilderness areas designated by this Act the use of aircraft or motorboats, where these uses have already become established, may be permitted to continue subject to such restrictions as the Secretary of Agriculture deems desirable. In addition, such measures may be taken as may be necessary in the control of fire, insects, and diseases, subject to such conditions as the Secretary deems desirable.

(2) Nothing in this Act shall prevent within national forest wilderness areas any activity, including prospecting, for the purpose of gathering information about mineral or other resources, if such activity is carried on in a manner compatible with the preservation of the wilderness environment. Furthermore, in accordance with such program as the Secretary of the Interior shall develop and conduct in consultation with the Secretary of Agriculture, such areas shall be surveyed on a planned, recurring basis consistent with the concept of wilderness preservation by the Geological Survey and the Bureau of Mines to determine the mineral values, if any, that may be present; and the results of such surveys shall be made available to the public and submitted to the President and Congress.

(3) Notwithstanding any other provisions of this Act, until midnight December 31, 1983, the United States mining laws and all laws pertaining to mineral leasing shall, to the same extent as applicable prior to the effective date of this Act, extend to those national forest lands designated by this Act as "wilderness areas"; subject, however, to such reasonable regulations governing ingress and egress as may be prescribed by the Secretary of Agriculture consistent with the use of the land for mineral location and development and exploration, drilling, and production, and use of land for transmission lines, waterlines, telephone lines, or facilities necessary in exploring, drilling, producing, mining, and processing operations, including where essential the use of mechanized ground or air equipment and restoration as near as practicable of the surface of the land disturbed in performing prospecting, location, and, in oil and gas leasing, discovery work, exploration, drilling, and production, as soon as they have served their purpose. Mining locations lying within the boundaries of said wilderness areas shall be held and used solely for mining or processing operations and uses reasonably incident thereto; and hereafter, subject to valid existing rights, all patents issued under the mining laws of the United States affecting national forest lands designated by this Act as wilderness areas shall convey title to the mineral deposits within the claim, together with the right to cut and use so much of the mature timber therefrom as may be needed in the extraction, removal, and beneficiation of the mineral deposits, if needed timber is not otherwise reasonably available, and if the timber is cut under sound principles of forest management as defined by the national forest rules and regulations, but each such patent shall reserve to the United States all title in or to the surface of the lands and products thereof, and no use of the surface of the claim or the resources therefrom not reasonably required for carrying on mining or prospecting shall be allowed except as otherwise expressly provided in this Act: *Provided*, That, unless hereafter specifically authorized, no patent within wilderness areas designated by this Act shall issue after December 31, 1983, except for the valid claims existing on or before December 31, 1983. Mining claims located after the effective date of this Act within the boundaries of wilderness areas designated by this Act shall create no rights in excess of those rights which may be patented under the

Mineral leases,
claims, etc.

78 STAT. 894.
78 STAT. 895.

provisions of this subsection. Mineral leases, permits, and licenses covering lands within national forest wilderness areas designated by this Act shall contain such reasonable stipulations as may be prescribed by the Secretary of Agriculture for the protection of the wilderness character of the land consistent with the use of the land for the purposes for which they are leased, permitted, or licensed. Subject to valid rights then existing, effective January 1, 1984, the minerals in lands designated by this Act as wilderness areas are withdrawn from all forms of appropriation under the mining laws and from disposition under all laws pertaining to mineral leasing and all amendments thereto.

Water resources.

(4) Within wilderness areas in the national forests designated by this Act, (1) the President may, within a specific area and in accordance with such regulations as he may deem desirable, authorize prospecting for water resources, the establishment and maintenance of reservoirs, water-conservation works, power projects, transmission lines, and other facilities needed in the public interest, including the road construction and maintenance essential to development and use thereof, upon his determination that such use or uses in the specific area will better serve the interests of the United States and the people thereof than will its denial; and (2) the grazing of livestock, where established prior to the effective date of this Act, shall be permitted to continue subject to such reasonable regulations as are deemed necessary by the Secretary of Agriculture.

(5) Other provisions of this Act to the contrary notwithstanding, the management of the Boundary Waters Canoe Area, formerly designated as the Superior, Little Indian Sioux, and Caribou Roadless Areas, in the Superior National Forest, Minnesota, shall be in accordance with regulations established by the Secretary of Agriculture in accordance with the general purpose of maintaining, without unnecessary restrictions on other uses, including that of timber, the primitive character of the area, particularly in the vicinity of lakes, streams, and portages: *Provided*, That nothing in this Act shall preclude the continuance within the area of any already established use of motorboats.

(6) Commercial services may be performed within the wilderness areas designated by this Act to the extent necessary for activities which are proper for realizing the recreational or other wilderness purposes of the areas.

(7) Nothing in this Act shall constitute an express or implied claim or denial on the part of the Federal Government as to exemption from State water laws.

78 STAT. 895.

78 STAT. 896.

(8) Nothing in this Act shall be construed as affecting the jurisdiction or responsibilities of the several States with respect to wildlife and fish in the national forests.

STATE AND PRIVATE LANDS WITHIN WILDERNESS AREAS

SEC. 5. (a) In any case where State-owned or privately owned land is completely surrounded by national forest lands within areas designated by this Act as wilderness, such State or private owner shall be given such rights as may be necessary to assure adequate access to such State-owned or privately owned land by such State or private owner and their successors in interest, or the State-owned land or privately owned land shall be exchanged for federally owned land in the same State of approximately equal value under authorities available to the Secretary of Agriculture: *Provided, however*, That the United States shall not transfer to a State or private owner any mineral interests unless the State or private owner relinquishes or

Transfers, restriction.

causes to be relinquished to the United States the mineral interest in the surrounded land.

(b) In any case where valid mining claims or other valid occupancies are wholly within a designated national forest wilderness area, the Secretary of Agriculture shall, by reasonable regulations consistent with the preservation of the area as wilderness, permit ingress and egress to such surrounded areas by means which have been or are being customarily enjoyed with respect to other such areas similarly situated.

(c) Subject to the appropriation of funds by Congress, the Secretary of Agriculture is authorized to acquire privately owned land within the perimeter of any area designated by this Act as wilderness if (1) the owner concurs in such acquisition or (2) the acquisition is specifically authorized by Congress.

Acquisition.

GIFTS, BEQUESTS, AND CONTRIBUTIONS

SEC. 6. (a) The Secretary of Agriculture may accept gifts or bequests of land within wilderness areas designated by this Act for preservation as wilderness. The Secretary of Agriculture may also accept gifts or bequests of land adjacent to wilderness areas designated by this Act for preservation as wilderness if he has given sixty days advance notice thereof to the President of the Senate and the Speaker of the House of Representatives. Land accepted by the Secretary of Agriculture under this section shall become part of the wilderness area involved. Regulations with regard to any such land may be in accordance with such agreements, consistent with the policy of this Act, as are made at the time of such gift, or such conditions, consistent with such policy, as may be included in, and accepted with, such bequest.

(b) The Secretary of Agriculture or the Secretary of the Interior is authorized to accept private contributions and gifts to be used to further the purposes of this Act.

ANNUAL REPORTS

SEC. 7. At the opening of each session of Congress, the Secretaries of Agriculture and Interior shall jointly report to the President for transmission to Congress on the status of the wilderness system, including a list and descriptions of the areas in the system, regulations in effect, and other pertinent information, together with any recommendations they may care to make.

Approved September 3, 1964.

LEGISLATIVE HISTORY:

HOUSE REPORTS: No. 1538 accompanying H. R. 9070 (Comm. on Interior & Insular Affairs) and No. 1829 (Comm. of Conference).

SENATE REPORT No. 109 (Comm. on Interior & Insular Affairs).

CONGRESSIONAL RECORD:

Vol. 109 (1963): Apr. 4, 8, considered in Senate.

Apr. 9, considered and passed Senate.

Vol. 110 (1964): July 28, considered in House.

July 30, considered and passed House, amended, in lieu of H. R. 9070.

Aug. 20, House and Senate agreed to conference report.



SIGNATURE PAGE

Submitted By:

John R. Frye
(Signature)

John R. Frye
Refuge Manager

(Title)

Date: December, 8, 1978

Approved, Area Office:

Date: _____

(Signature)

(Title)

Approved, Regional Office:

Date: _____

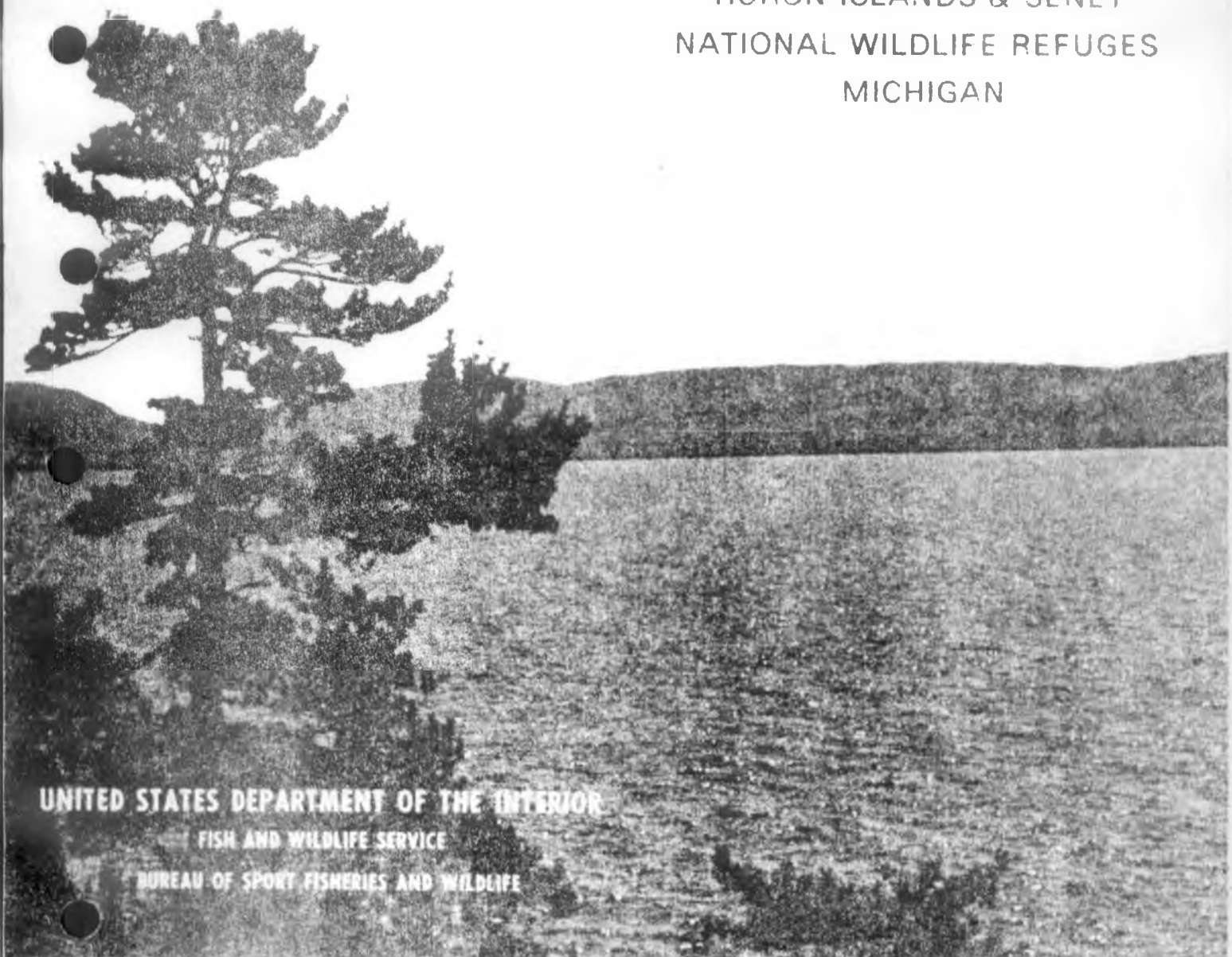
(Signature)

(Title)

File # 17
SAVE

Huron Islands & Seneey

HURON ISLANDS & SENEY
NATIONAL WILDLIFE REFUGES
MICHIGAN



UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
BUREAU OF SPORT FISHERIES AND WILDLIFE

SENEY NATIONAL WILDLIFE REFUGE WILDERNESS AREA

The Seney Wilderness Area is a unit of the Seney National Wildlife Refuge consisting of approximately 25,150 acres of undeveloped wildlife lands. The Seney National Wildlife Refuge, located in the Upper Peninsula of Michigan, west of the towns of Seney and Germfask, contains 95,455 acres with the Wilderness Area situated in the north-west quadrant bordered by State Highway M-28 on the north and the Creighton Truck Trail on the west.

The Seney Wilderness Area is a flat outwash plain from a recent glacier which was in turn reworked by a glacial lake then became a dry sand plain as result of drought. During drought periods the sands were blown into dunes which became extinct and covered with trees and brush during the moist period which presently exists. The extinct sand dunes now form tree covered islands in a vast bog creating a patterned area called Strangmoor Bogs, or "string bogs". Two thirds of the Wilderness Area is characterized by this sub-arctic formation which is rare at this latitude. The remainder of the Wilderness Area was once a white pine forest which was logged off before the turn of the century and then burned over many times. It is now covered with large pine stumps, second growth aspen and jack pine, and a variety of less prominent species.

Approximately 9,000 acres of the most typical "string bogs" formation has been designated the "Strangmoor Bog Registered Natural Landmark".

Climate of the Seney Wilderness Area is characterized by cold winters and cool summers, with temperature extremes from -47° to 103° . Precipitation averages 31 inches annually with about one-half received as snow in the winter months.

The Wilderness Area provides habitat for many species of wildlife including deer, moose, bear, coyote, timber wolf, red fox, beaver, otter, mink, muskrat, bald eagle, osprey, Canada geese, mallard, black duck, wood duck, blue-winged teal, spruce grouse, ruffed grouse, sharp-tailed grouse, and a great variety of songbirds.

The bog islands are commonly dominated by a few red pine with some jack pine or aspen. They are usually fringed with thick clumps of alder, and in some locations long stands of tamarac trail away on the tails of the islands.

Black spruce swamps are found along the edges of the bog while thin stands of aspen or jack pine with numerous shrubs share the burned over uplands with large, charred pine stumps.

The Seney Wilderness Area is easily accessible. Management for bald eagles and the endangered timber wolf should dominate the use of the area. National Wildlife Refuge Wilderness Area designation will protect this delicate and fragile environment for posterity, but extremely careful guardianship will be necessary to protect it from overuse.

HURON ISLANDS NATIONAL WILDLIFE REFUGE WILDERNESS AREA

The Huron Islands Wilderness Area comprises the entire Huron Islands National Wildlife Refuge, which is composed of a group of eight islands totaling 147 acres, located three miles off the south shore of Lake Superior, about 40 miles east of Houghton, Michigan.

The U.S. Fish and Wildlife Service has primary jurisdiction on only 22 acres and secondary jurisdiction over the remainder. The largest island, East Huron, is held by the Corps of Army Engineers as a potential site for quarrying rock to construct breakwaters, and the second largest island, West Huron or Lighthouse, is under the jurisdiction of the Coast Guard which until recently maintained a station, lighthouse and boathouse. The station was abandoned in 1972 when the navigation light was automated.

The Lighthouse on West Huron, or Lighthouse Island, has been in operation as a navigational aid to warn shipping of the rocky islands since 1877. The building was originally constructed in 1868 and is now listed in the National Register of Historic Places.

The Huron Islands are composed of pink and gray granite upthrusts covered with trees, shrubs and herbaceous plants, and exposed rock which is barren or covered with lichens and mosses. Exposed rock frequently shows deep glacial striae. The rocks rise nearly 200 feet above Lake Superior offering steep cliffs on the south and rounded glacier and wave worn rock surfaces on the ends and north sides.

Red and White pines, balsam fir, white birch, white cedar and numerous other varieties of tree species grow in the rock crevices and on accumulated soil in scattered abandon, showing the ravages of wind, ice and sleet while often persisting on precarious sites with gnarled picturesque effects. Many rocks are coated with folios lichens on their sides, or deep beds of reindeer moss on their flat upper surfaces which depict the fragile characteristics of the wild beauty of the islands.

The small, almost barren rock islands on the eastern extremities of the group support nesting colonies of herring gulls, probably the most numerous species of wildlife on the Hurons. Other species common to the islands are snowshoe hare, woodland deer mouse, meadow vole, raven, blue jay, tree swallow and a host of additional small perching birds. Evidence of past use of the islands by bald eagles, black bears, coyotes and raccoons has been observed.

The Huron Islands present rugged pristine beauty in an isolated setting, with the wild south shore of Lake Superior as a superb wilderness companion. The National Wildlife Refuge Wilderness Area designation will protect this delicate and fragile environment for future generations.

SPECIAL REGULATIONS -- USE OF WILDERNESS AREAS

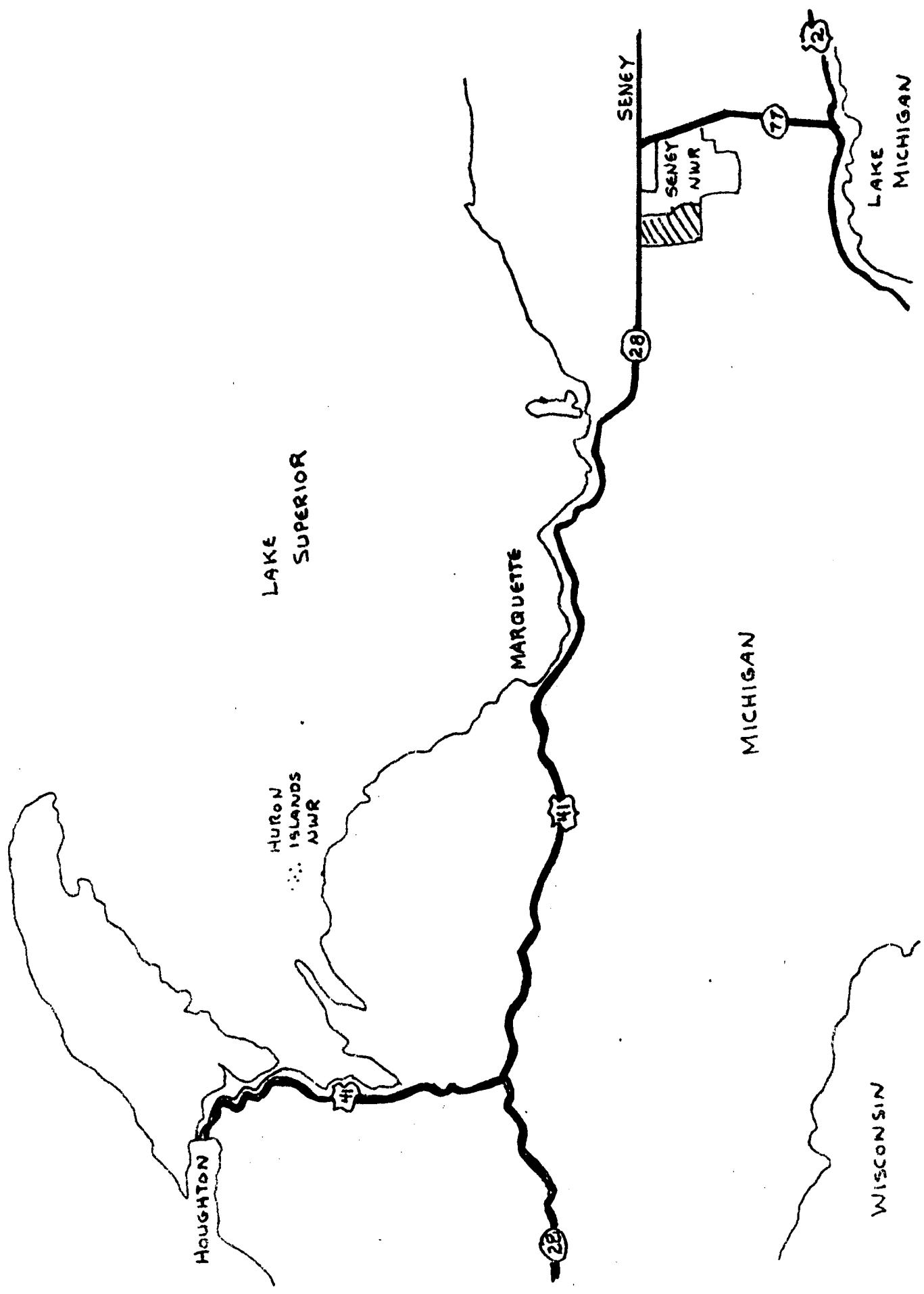
SENEY WILDERNESS AREA:

1. Open to hiking and nature study from August 1 through March 14 during daylight hours only. Registration at Refuge Headquarters required for the period August 1 through September 14.
2. Open to small game hunting September 15 through February 28, and to deer hunting November 15 through 30.
3. Camping prohibited except by Special Use Permit to bonafide biologists, botanists, or other qualified applicants in conjunction with approved studies. Primitive type camping only when permitted.

HURON ISLANDS WILDERNESS AREA:

1. Only West Huron Island (Lighthouse Island) open to public, during daylight hours, for hiking and nature study.
2. All remaining islands closed to public, except by Special Use Permit to bonafide biologists, botanists, or other qualified applicants in conjunction with approved studies. Exceptions are emergency landings by boats in distress.
3. Camping is prohibited on all islands, except that bonafide biologists, botanists, and other qualified applicants may be permitted prescribed primitive-type camping only on West Huron Island (Lighthouse Island) by Special Use Permit, in conjunction with approved studies.

PERMITS OBTAINABLE FROM: Refuge Manager
Seney National Wildlife Refuge
Seney, Michigan 49883



HOUGHTON

HURON ISLANDS NWR

LAKE SUPERIOR

MARQUETTE

SENEY

SENEY NWR

MICHIGAN

WISCONSIN

LAKE MICHIGAN

28

41

28

77

2

*Huron Islands
& Seneey*

Wilderness Study Areas

HURON ISLANDS & SENEY
NATIONAL WILDLIFE REFUGES
MICHIGAN



UNITED STATES DEPARTMENT OF THE INTERIOR

FISH AND WILDLIFE SERVICE

BUREAU OF SPORT FISHERIES AND WILDLIFE

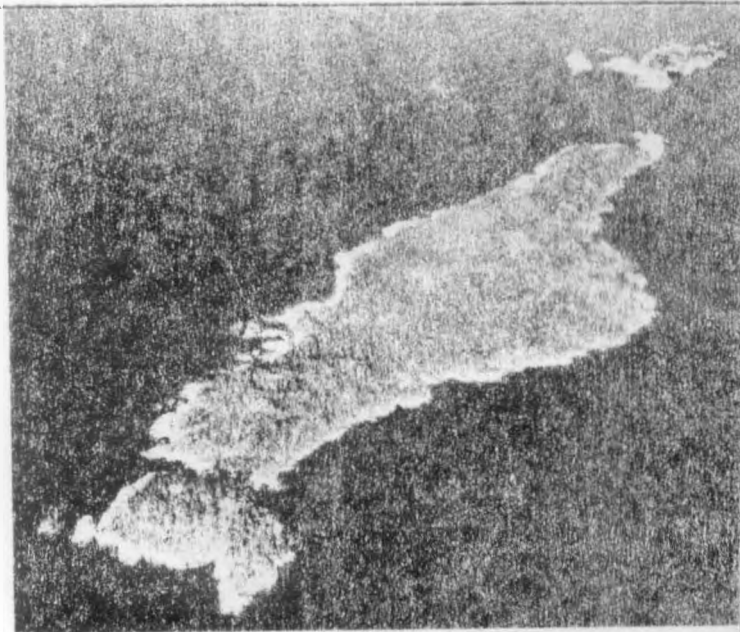
Huron Islands and Seney

WILDERNESS STUDY AREAS

THE HURON ISLANDS Wilderness Study Area comprises the entire Huron National Wildlife Refuge which is composed of a group of eight islands totaling 147 acres off the south shore of Lake Superior.

The Bureau of Sport Fisheries and Wildlife has primary jurisdiction on only 22 acres and secondary jurisdiction over the remainder. The largest island, East Huron, is under the jurisdiction of the Corps of Army Engineers. The second largest, Huron, is under the jurisdiction of the Coast Guard. The islands were selected for study because as islands, they met the initial wilderness requirements.

SENEY WILDERNESS STUDY AREA is a unit of the Seney National Wildlife Refuge consisting of 19,150 acres of undeveloped wildlife lands.

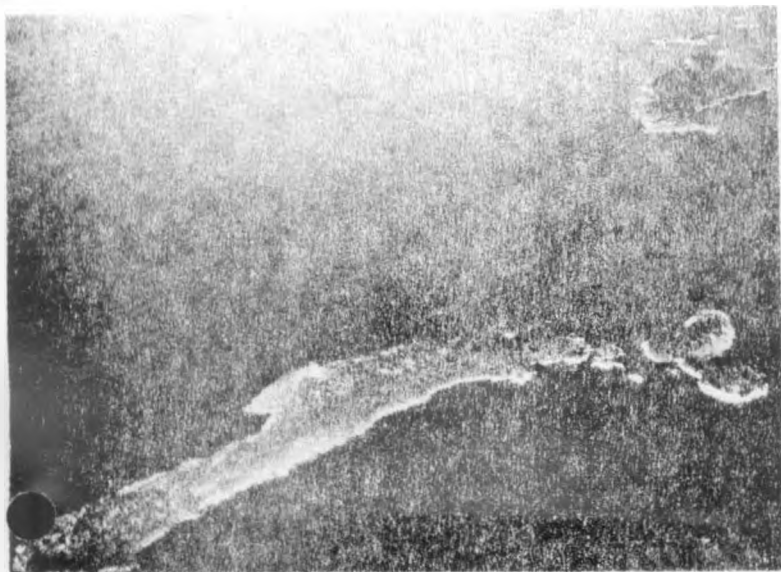


East Huron and gull oval.

OBJECTIVES

National Wildlife Refuge Wilderness Study Areas are those units of the National Wildlife Refuge System which met the initial criteria for Wilderness Areas and were listed for study to determine if they fully satisfied these requirements.

The Wilderness Act of September 3, 1961 (Public Law 88-577) requires that every roadless area of 5,000 acres or more and every roadless island within the National Wildlife Refuge System be designated a Wilderness Study Area. The provisions of Section 4(a) and 4(b) of the Wilderness Act declare that the Act is to be within and supplemental to the purposes for which National Wildlife Refuges are established and administered: wilderness areas shall be administered so as to meet purposes of wildlife protection for which refuges were established and in such a manner as to preserve and protect their wildlife.



*Huron Islands group
Lighthouse Island in foreground*

*Glacial striae -
Huron Islands*

communities, and shall also be administered within the wilderness area concept to provide public recreational, scenic, scientific, educational, conservational and historical enjoyment insofar as wildlife management objectives permit.

LOCATION

The Huron Islands are located 3 miles off the south shore of Lake Superior opposite the Huron Mountains 40 miles east of Houghton-Hancock in Marquette County, Michigan. The Seney National Wildlife Refuge is located in Michigan's Upper Peninsula approximately halfway between Marquette and Sault Ste. Marie. The 95,150 acre refuge is found west of the towns of Seney and Germsfask with the 19,150 acres Wilderness Study Area situated in the northwest quadrant bordering state highway 28 on the north and the Creighton Road on the west.

PHYSIOGRAPHY

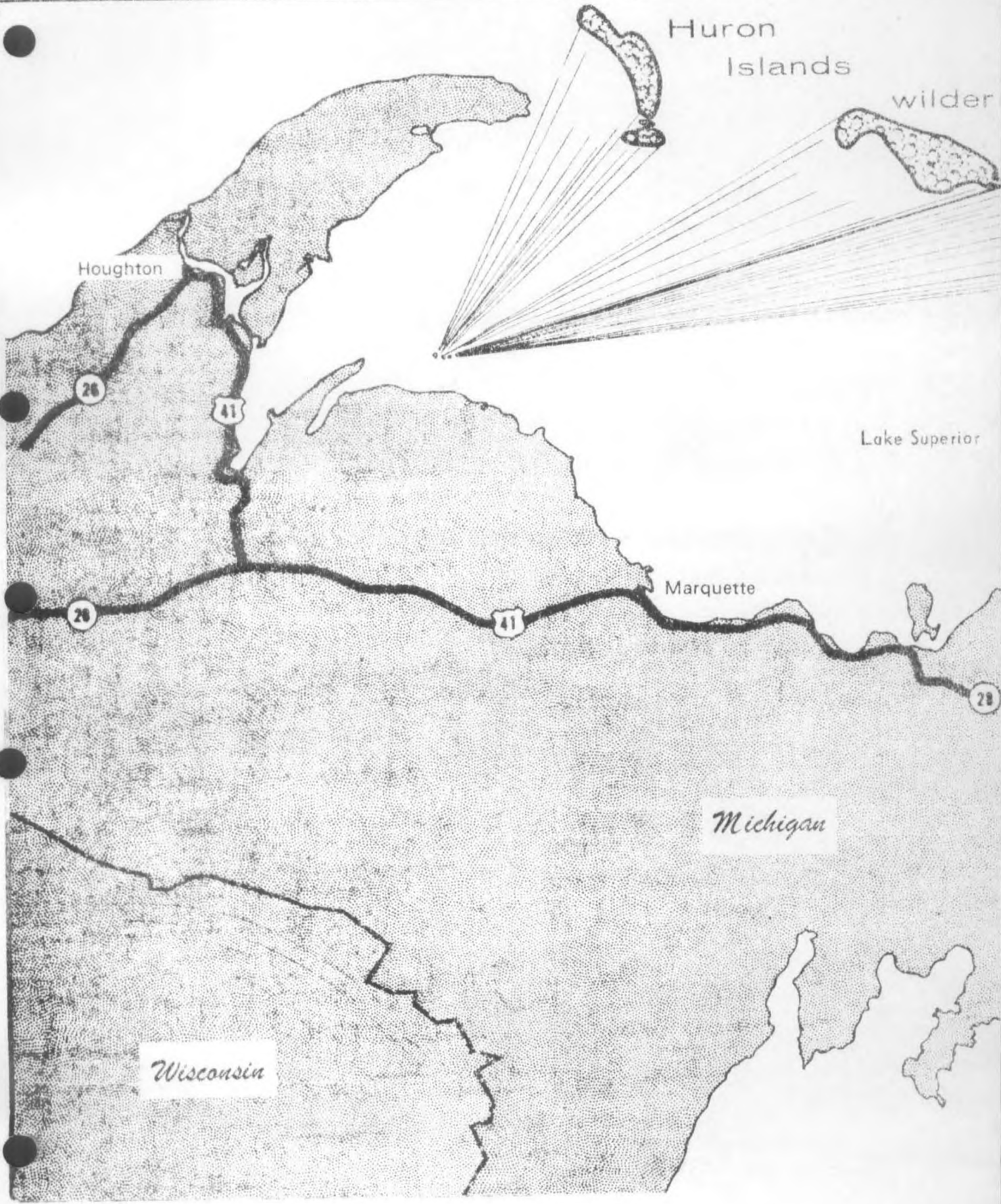
The Huron Islands Study Area is composed of pink and gray granite upthrusts with two thirds of the islands covered with trees, shrubs and herbaceous plants. The remainder is exposed rock which is barren or covered with lichens and mosses and frequently showing deep glacial striae on exposed surfaces. The rocks rise nearly 200 feet above the lake offering steep cliffs on the south and rounded glacier and wave worn rock surfaces on the ends and north sides. The small almost barren rock islands on the eastern extremities of the group is the nesting site of the main herring gull colony.



The Coast Guard has a station, lighthouse and boathouse situated on Huron Island at widely separated locations with well developed foot trails joining the installations. They may, however, eventually abandon the station because of automatic devices though no change is foreseen in the immediate future.

East Huron Island is held by the Corps of Army Engineers as a potential site for rock quarrying to build breakwaters. The Corps retains its primary rights but does not see any demand for quarry rock in the foreseeable future.

The white and red pines, balsam fir, white birch and white cedar and a variety of less numerous other tree species grow in the rock crevices and on the accumulated soil in scattered abandon and show the ravages of wind, ice and sleet while often persisting on precarious sites with gnarled, picturesque effects. Many rocks have coats of folios lichens on their sides or beds of deep reindeer moss on their flat upper surfaces which depict the fragile characteristics of the wild beauty of these islands.



Houghton

28

41

28

41

Marquette

28

Wisconsin

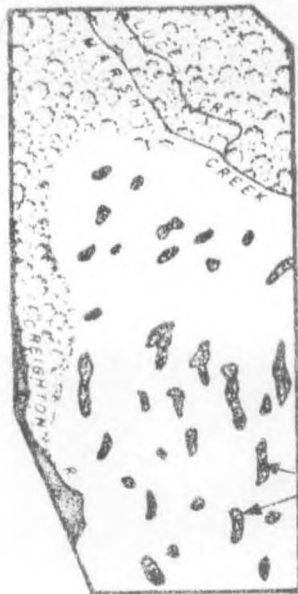
Michigan

Lake Superior

Huron
Islands

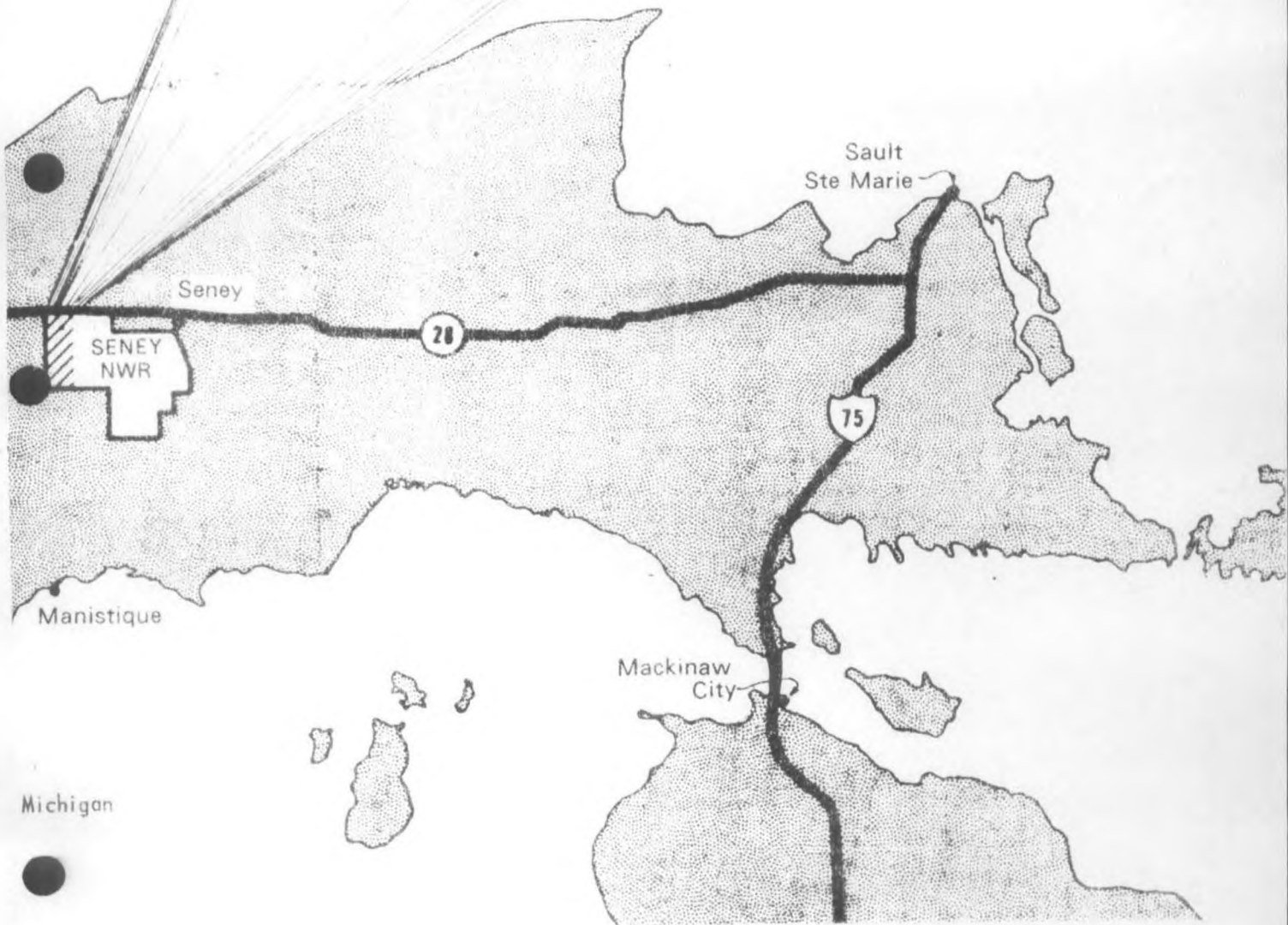
wilder

ss
study
area



Seney
wilderness
study
area

(islands in the bog)



Michigan

THE SENEY WILDERNESS STUDY AREA is an outstanding contrast to the Huron Islands. Here is found a flat outwash plain from a glacier which in turn was reworked by a glacial lake then made a dry sand plain by drought. During the drought the sands were blown into sand dunes which became extinct and covered with trees and brush during the moist period which presently exists. These extinct dunes now form tree covered islands in the vast bog creating a patterned area called "string bogs". Two thirds of the study area is characterized by this sub-arctic formation which is rare at this latitude. The remainder of the study area was once a white pine forest which was logged off before the turn of the century and then burned over many times. It is now covered with large pine stumps, second growth aspen and jack pine and a variety of less prominent species.

CLIMATE

The islands are characterized by cold winters and cool summers under the moderating influence of Lake Superior. Seney Refuge, on the otherhand has greater extremes with -47 and 103. The average annual temperature of 40 however, is the same.



Large pine stumps and second growth aspen - Seney

Precipitation averages 31 inches and ranges between 18-37 inches. Winds are particularly strong in the spring and fall but may make dangerous sailing on the big lake at any season of the year.

WILDLIFE RESOURCES

The herring gull is probably the most numerous species of wildlife on the Hurons and nests on the barren rock islands at the eastern extremity of the island group. It is essential that the birds be protected from molestation during the nesting and brooding seasons. Other species of wildlife common to the islands are the snowshoe hare, whitefooted deer mouse, raven, bluejay, brown thrasher, tree swallow and a host of additional small perching birds.

*Rocks, lichens and pines -
Huron Islands*



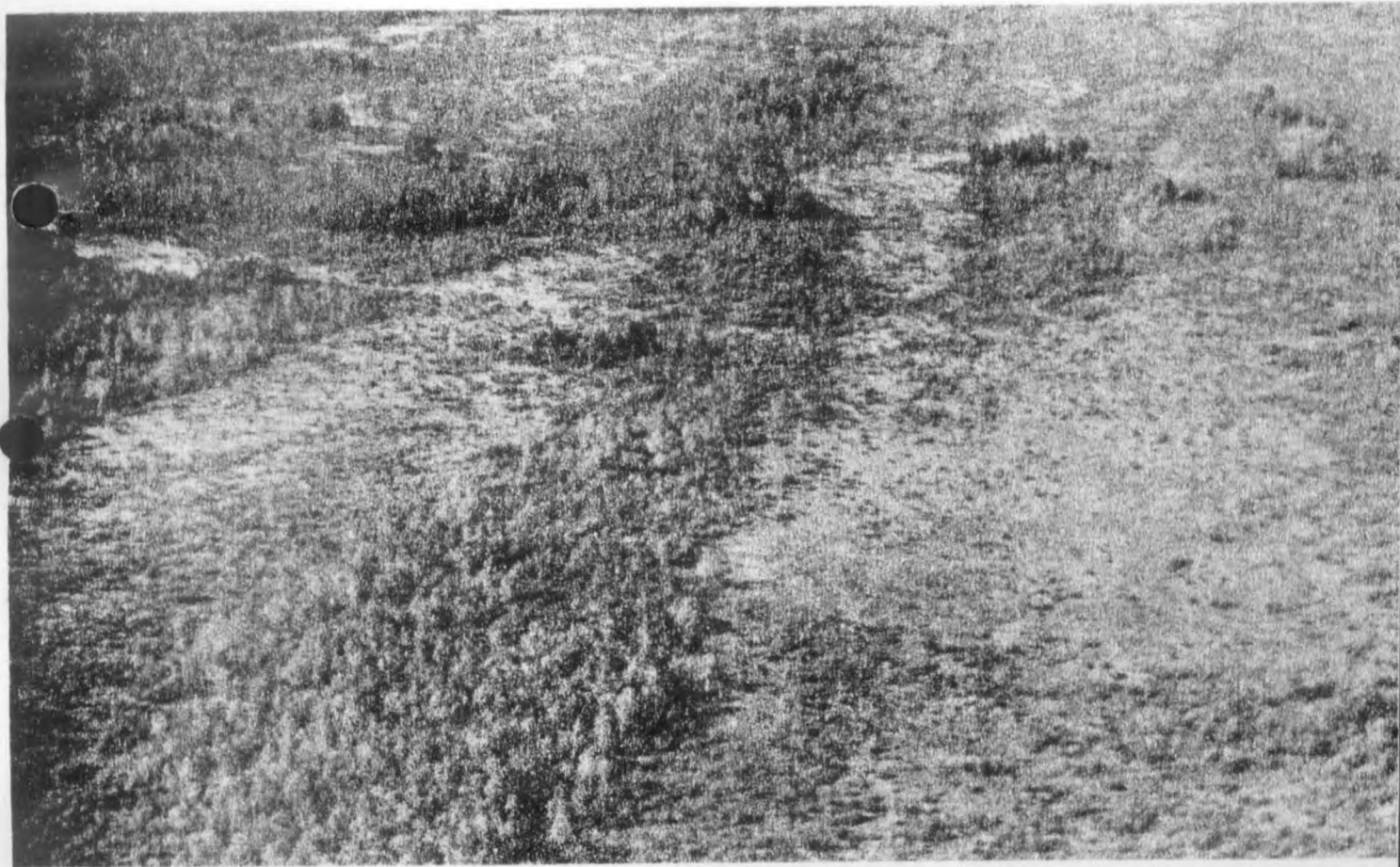
Supplementary to the habitat previously mentioned the islands contain the following important wildlife species: black spruce, trembling aspen, mountain maple, mountain ash, alder, red osier dogwood, elderberry, honeysuckle, raspberry, gooseberry, blueberry and a host of herbs.

The Seney Wilderness Study Area provides habitat for many species of wildlife including, deer, moose, bear, coyote, timber wolf, red fox, beaver, otter, mink, muskrat, bald eagle, osprey, Canada geese, black duck, mallard, baldpate, wood duck, bluewinged teal, spruce grouse, ruffed grouse, sharptailed grouse and a great variety of smaller birds.

The bog islands are commonly dominated by a few red pine with some jack pine or aspen. They are usually fringed with thick clumps of alder and in some locations long stands of tamarac trail away on the tails of the islands.

Black spruce swamps are found along the edges of the bog while thin stands of aspen or jack pine with numerous shrubs share the burned over uplands with large, charred pine stumps.

The public is invited to visit these areas before the hearing. Additional information on both areas is available from the Refuge Manager, Seney National Wildlife Refuge, Seney, Michigan.



Fingers of tamarac in the bog - Seney



Patterned Bogs at Seney

SOCIO-ECONOMIC CONSIDERATION

Little social or economic impact on the community is expected to result if the Huron Islands are classified as wilderness. The islands are a considerable distance from the access points and favorable weather must prevail for sailing to and landing at these rugged islands.

The Seney Unit, on the other hand, is easily accessible from along state highway 28 or from the Creighton Road. Some logging income may be lost locally but this would eventually be compensated for by income from tourists responding to the appeal of the wilderness and other outdoor recreation oriented areas in the vicinity.

SUMMARY

The Huron Islands present rugged, pristine beauty in an isolated setting with the wild south shore of Lake Superior and the Huron Mountains as superb wilderness companions.

The Seney Wilderness Unit is very accessible and portrays an unusual formation of "string bogs". Wildlife management particularly for bald eagles and timberwolves, should dominate the use of the area.

Both of these Wilderness Study Areas render delicate and fragile environments for wilderness consideration. They should be preserved for posterity but will require extremely careful guardianship to protect them from overuse.

Created in 1849, the Department of the Interior—America's Department of Natural Resources—is concerned with the management, conservation, and development of the Nation's water, fish, wildlife, mineral, forest and park and recreational resources. It also has major responsibilities for Indian and Territorial affairs.

As the Nation's principal conservation agency, the Department works to assure that nonrenewable resources are developed and used wisely; that park and recreational resources are conserved for the future, and that renewable resources make their full contribution to the progress, prosperity, and security of the United States—now and in the future.