

PROPOSALS FOR THE ADDITION OF FIFTEEN NEW AREAS TO THE NATIONAL WILDERNESS PRESERVATION SYSTEM

MESSAGE

FROM

THE PRESIDENT OF THE UNITED STATES

TRANSMITTING

PROPOSALS FOR THE ADDITION OF FIFTEEN NEW AREAS TO THE NATIONAL WILDERNESS PRESERVATION SYSTEM, THE AUGMENTATION OF TWO PREVIOUSLY-SUBMITTED PROPOSALS, AND RECOMMENDATIONS AGAINST INCLUSION IN THE SYSTEM OF SEVEN ROADLESS AREAS STUDIED, PURSUANT TO SECTION 3 OF THE WILDERNESS ACT OF 1964 [16 USC 1132]

PART 12

TAMARAC NATIONAL WILDLIFE REFUGE
MINNESOTA



JUNE 13, 1974.—Message and accompanying papers referred to the Committee on Interior and Insular Affairs and ordered to be printed with illustrations

U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON : 1974

LETTER OF TRANSMITTAL

To the Congress of the United States:

There is no greater challenge facing America today than the discovery and development of new energy resources.

As we move toward national self-sufficiency in energy, however, we must be diligent in protecting and preserving our natural heritage of unspoiled wilderness areas and the ecosystems which they support.

With this goal in mind, and pursuant to the Wilderness Act of 1964, I am today proposing 15 new additions to our National Wilderness Preservation System. These additions comprise more than 6 million acres and would nearly double existing wilderness acreage.

I would also like to take this opportunity to urge once again that Congress enact the eastern wilderness legislation I recently submitted, now embodied in legislation labeled S. 2487 and H.R. 10469. On May 31, the Senate passed a bill which would designate certain wilderness areas in the Eastern United States. The Senate bill, I believe, is inadequate. I urge the House to give early and favorable consideration to wilderness legislation incorporating the Administration proposal, and I urge the Congress to adopt it as the most balanced approach to studying and designating wilderness areas in the Eastern United States.

Briefly described, the additions I am proposing today are:

(1) Crater Lake National Park, Oregon—122,400 acres. Crater Lake is the deepest lake in the country and, in its ancient caldera setting, one of the most beautiful. The lake is surrounded by rugged and varied terrain, most of which is recommended for wilderness designation.

(2) Havasu National Wildlife Refuge, California—2,510 acres of Sonoran desert land. Located in one of the hottest and driest areas of the country—rainfall averages only 4.73 inches per year—this refuge is the home of such rare or endangered species as the Yuma clapper rail, the Gila monster, and the peregrine falcon.

(3) Semidi National Wildlife Refuge, Alaska—256,000 acres comprising nine islands and surrounding submerged lands in the western Gulf of Alaska. The refuge's fragile estuarine system is a breeding ground for vast colonies of sea birds and other forms of wildlife.

(4) Hawaiian Islands National Wildlife Refuge, Hawaii—1,742 acres on various islets and reefs distributed among some 800 miles of ocean between the main Hawaiian Islands and Midway Island. Among the rare forms of wildlife found within this refuge are the Laysan teal, found only on Laysan Island; the Hawaiian monk seal; and the green sea turtle.

(5) Crab Orchard National Wildlife Refuge, Illinois—4,050 acres. This refuge is a haven for such migratory waterfowl as Canada geese, snow and blue geese, and mallard ducks.

(6) Zion National Park, Utah—120,620 acres. This park is a superlative example of the effect of erosion on an uplifted plateau. The great bulk of its towering peaks and pinnacles, arches, and natural bridges are recommended for wilderness designation.

(7) Katmai National Monument, Alaska—2,603,547 acres. Situated near the base of the Alaskan Peninsula, this massive area comprises three entirely different ecosystems: a coastal area dotted with fjord-like bays; a mountainous area atop ancient volcanic basement rocks; and a plain crisscrossed by lakes of glacial origin.

(8) Rice Lake and Mille Lacs National Wildlife Refuges, Minnesota—1,407 acres. Consisting largely of bog, forest, and lakes, Rice Lake National Wildlife Refuge supports a variety of birds, notably the ring-necked duck. Both of the islands which constitute the small, nearby Mille Lacs National Wildlife Refuge are also included in this recommendation.

(9) Glacier National Park, Montana—927,550 acres. Located in the Rocky Mountains of Montana, this park—nearly all of which is suitable for wilderness designation—contains some 50 small glaciers and 200 lakes.

(10) Red Rock Lakes National Wildlife Refuge, Montana—32,350 acres. Although it harbors a multitude of ducks, as well as such mammals as moose, elk, deer, and antelope, the primary purpose of this refuge is to protect the once-rare trumpeter swan, largest of all American waterfowl.

(11) Olympic National Park, Washington—862,139 acres. The home of more than 50 wildlife species, this landscape of rain forests and sea-shore lies in the wettest winter climate in the lower 49 States.

(12) Tamarac National Wildlife Refuge, Minnesota—2,138 acres. One of the most important sanctuaries along the Mississippi Flyway, this area hosts thousands of pairs of ducks during the annual nesting season.

(13) Rocky Mountain National Park, Colorado—239,835 acres characterized by massive peaks, Alpine lakes, and mountain forests. Among the wildlife found here are wapiti, mule deer, and bighorn sheep.

(14) Missisquoi National Wildlife Refuge, Vermont—620 acres. Located less than a mile from the Canadian border, this refuge supports primarily waterfowl but also a population of 100 whitetail deer, a species which was all but nonexistent in this area 30 years ago.

(15) Unimak Island (Aleutian Islands National Wildlife Refuge), Alaska—973,000 acres. A rich diversity of wildlife, including the Alaskan brown bear and the one-rare sea otter, inhabit this island. Its scenic coastline, rugged mountains, and volcanic remnants make the island ideal for the study of interrelated marine and terrestrial ecosystems.

In addition, two proposals which have been previously submitted—Pinnacles National Monument and Sequoia-Kings Canyon National Parks, all in California—have been augmented by sufficient acreage to warrant resubmission to the Congress. The enlargements, which are attributable to revised management philosophy and plans and the recent acquisition of private inholdings, amount to 5,970 acres in the case of Pinnacles and 68,800 acres in the case of Sequoia-Kings Canyon.

Three other areas—previously proposed—Cabeza Prieta Game Range, Arizona; Desert National Wildlife Range, Nevada; and Glacier Bay National Monument, Alaska—contain surface lands suitable for wilderness designation. However, because two of these areas are open to mining, and all three may contain minerals vital to the national interest and have not been subjected to adequate mineral surveys, I am recommending that action on these proposals be deferred pending the completion of such surveys.

After a review of roadless areas of 5,000 acres or more and roadless islands, the Secretary of the Interior has concluded that seven areas are not suitable for preservation as part of the National Wilderness Preservation System. These are: Savannah National Wildlife Refuge, Georgia; Little Pend Oreille National Wildlife Refuge and Turnbull National Wildlife Refuge, Washington; Bowdoin National Wildlife Refuge and the National Bison Range, Montana; National Elk Refuge, Wyoming; and Horicon National Wildlife Refuge, Wisconsin.

In addition to this message, I am transmitting herewith to the Congress letters and reports from the Secretary of the Interior regarding these wilderness proposals. I concur with the recommendation of the Secretary in each case, and I urge the Congress to give early and favorable consideration to all of these proposals.

RICHARD NIXON.

THE WHITE HOUSE, June 13, 1974.



United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

May 20, 1974

Dear Mr. President:

It is with pleasure that I recommend the establishment of areas totaling approximately 2,138 acres in Tamarac National Wildlife Refuge as part of the National Wilderness Preservation System.

The recommendation stems from this Department's responsibility under the Wilderness Act (78 Stat. 890) to recommend to the President areas within its jurisdiction suitable for designation as wilderness. Having reviewed potential areas in Tamarac National Wildlife Refuge, we conclude that 2,138 of the refuge's 42,485 acres should be designated wilderness.

Established by Executive Order in 1938 as a breeding ground for migratory birds, Tamarac National Wildlife Refuge is located in northwest Minnesota, 18 miles northeast of the town of Detroit Lakes. The refuge lies in a transitional zone between northern coniferous and southern deciduous forest. Twenty-one lakes and portions of four others are within its boundaries. Four to five thousand pairs of ducks per year nest on the refuge, and during the spring and fall it serves as an important sanctuary along the Mississippi Flyway. Among the great variety of mammals common in the refuge are white-tailed deer, muskrat, and beaver. More than two-thirds of the refuge is classed as timberland. The timber is harvested pursuant to an operational management plan which creates a pattern of open areas and resultant growth of small plants as food for wildlife while at the same time providing economic stimulus to the community. The refuge is also dotted with artificially created potholes for the waterfowl and is substantially used by the public. We recommend that three islands in Tamarac Lake and a block of land in the extreme northwest corner of the refuge--areas which are not subject to the intensive management prevalent in the rest of the refuge--be designated as wilderness. A thorough mineral

wilderness areas, and where appropriate any reference in that Act to the Secretary of Agriculture shall be deemed to be a reference to the Secretary of the Interior.

SEC. 4. Subject to all valid rights existing on the date of enactment of this Act, lands designated as wilderness by this Act are hereby withdrawn from all forms of appropriation under the mining laws and from disposition under all laws pertaining to mineral leasing and all amendments thereto.

TAMARAC WILDERNESS PROPOSAL

PUBLIC HEARING ANALYSIS

Upon completion of the study of the suitability of Tamarac National Wildlife Refuge or any portion of the refuge, it was concluded that an area qualified for wilderness consideration. Consequently, a Public Hearing Notice was published in the Federal Register on January 16, 1974 and a public hearing was held at the Becker County Court House, Detroit Lakes, Minnesota. A copy of the notice is attached.

A "package" of information was sent to the concerned public officials, departments, agencies and all other organizations and individuals known to have an interest in the proposal. The information "package" included the Tamarac Wilderness Summary, a notice of the hearing and a letter inviting each to make known his or her opinion on the proposal by writing or by giving a statement at the hearing. More than 1,200 "packages" were sent out to organizations and individuals. Public officials, departments and agencies were sent more than 200 "packages".

The public hearing was held as announced on February 20, 1974 at the Becker County Court House, Detroit Lakes, Minnesota, beginning at 7:30 p.m. The hearing was called to order by Hearing Officer Elmer Nitzschke, Field Solicitor, Department of the Interior, Minneapolis, Minnesota. Mr. Gordon H. Hansen, Regional Land Management

proposal will also contribute to wildlife use and management within the proposal.

Supervisor, Bureau of Sport Fisheries and Wildlife, Minneapolis, Minnesota, presented the Bureau's statement. A total of 38 persons

COMMUNICATIONS FROM STATE AND LOCAL OFFICIALS, STATE DEPARTMENTS AND AGENCIES

The Michigan Department of Natural Resources offered an opinion in support of the proposal.

The Minnesota Department of Highways responded but took no position.

COMMUNICATIONS FROM FEDERAL AGENCIES

A total of ten communications were received from Federal Agencies.

Letters in favor of the proposal were received from:

National Park Service
Bureau of Mines (2)

Those taking no position were:

National Park Service
Bureau of Land Management
Geological Survey
Department of Commerce

Three communications were received from the U. S. Forest Service.

The last letter was in opposition on the usual "purist" theme which is their standard position.

COMMUNICATIONS FROM ORGANIZATIONS

A total of 15 organizations communicated on the proposal, 13 were in favor, one had no discernable position and one was opposed. Organizations in favor were:

East River Group - Sierra Club - South Dakota
Fergus Falls Fish and Game Club - Minnesota
Friends of the Earth - Arizona Branch
Kenai Peninsula Conservation Society - Alaska
Minnesota Audubon Council
Minnesota Conservation Federation

Minnesota Division Izaak Walton League
North Central Audubon Council - Wisconsin
North Star Chapter Sierra Club - Minnesota
Southern Oregon-Northern California Wilderness Coalition
Sussex Woodland, Inc. - New Jersey
Upper Hiawatha Valley Audubon Society - Minnesota

Organizations with no position:

Friends of Animals - New York

Organizations opposed:

White Earth Reservation Business Committee - Minnesota

The letter in opposition arose from the Reservation Business Committee which believed ricing priviledges might be endangered. This is the same group expressing the same views as presented at the public hearing. The Committee voted 2 - 0 to oppose. Ricing is permitted in the wilderness and access will be by the water where it crosses the refuge road.

COMMUNICATIONS FROM CITIZENS

The total communications received from citizens totaled 163. Of these, 162 were in favor and one was opposed.

In review-- of all correspondents expressing an opinion, approximately 98 percent of the respondents were in favor of the proposal.

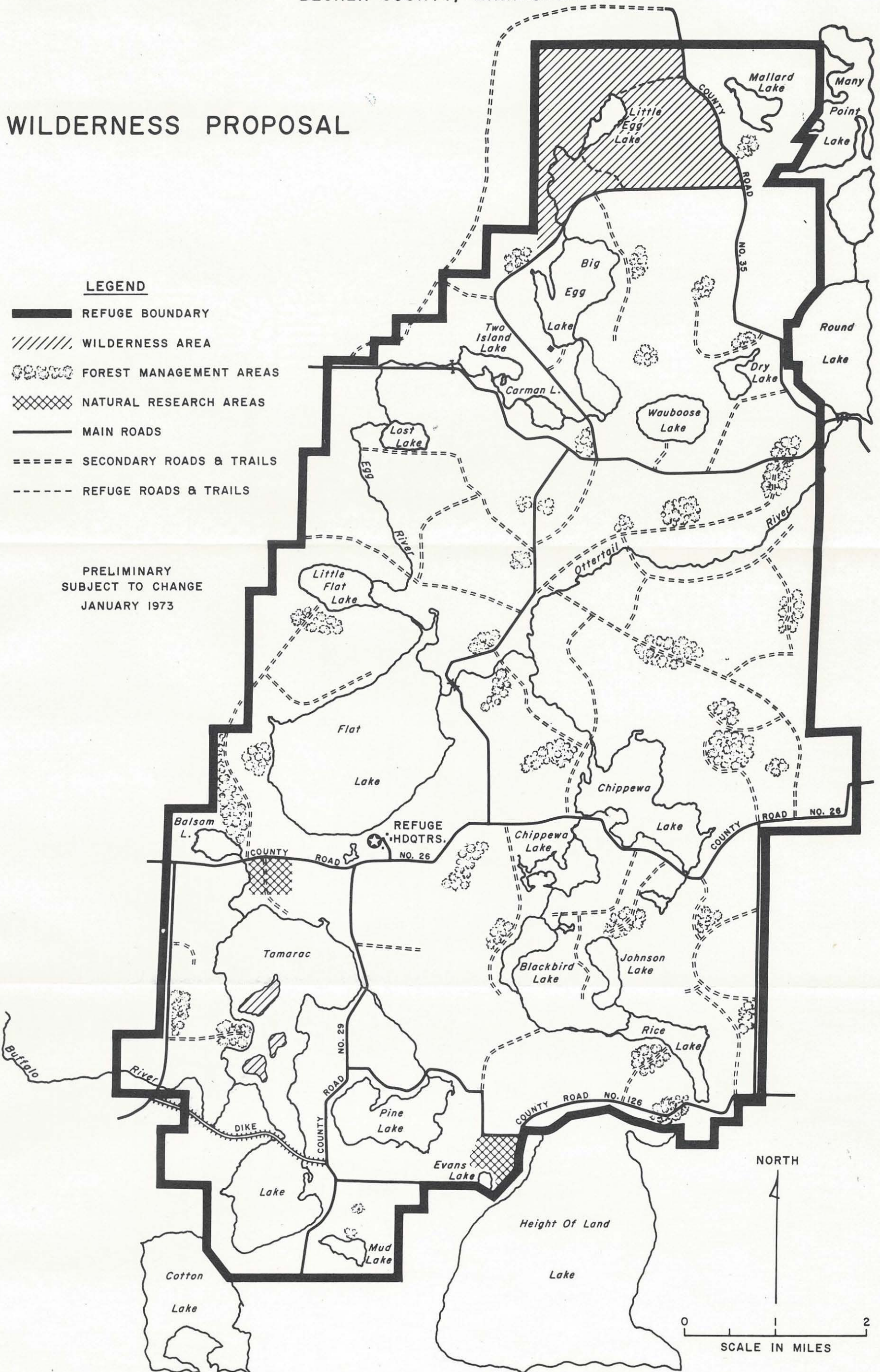
TAMARAC NATIONAL WILDLIFE REFUGE BECKER COUNTY, MINNESOTA

WILDERNESS PROPOSAL

LEGEND

- REFUGE BOUNDARY
- WILDERNESS AREA
- FOREST MANAGEMENT AREAS
- NATURAL RESEARCH AREAS
- MAIN ROADS
- SECONDARY ROADS & TRAILS
- REFUGE ROADS & TRAILS

PRELIMINARY
SUBJECT TO CHANGE
JANUARY 1973



Wilderness Study

SUMMARY

TAMARAC NATIONAL WILDLIFE REFUGE

Becker County, Minnesota

***United States Department of Interior
Bureau of Sport Fisheries & Wildlife***



This report was prepared pursuant to the Wilderness Act Public Law 88-577. Publication of the findings and recommendations herein should not be construed as representing either the approval or disapproval of the Secretary of the Interior. The purpose of this report is to provide information and alternatives for further consideration by the Bureau of Sport Fisheries and Wildlife, Secretary of Interior, and other Federal agencies.

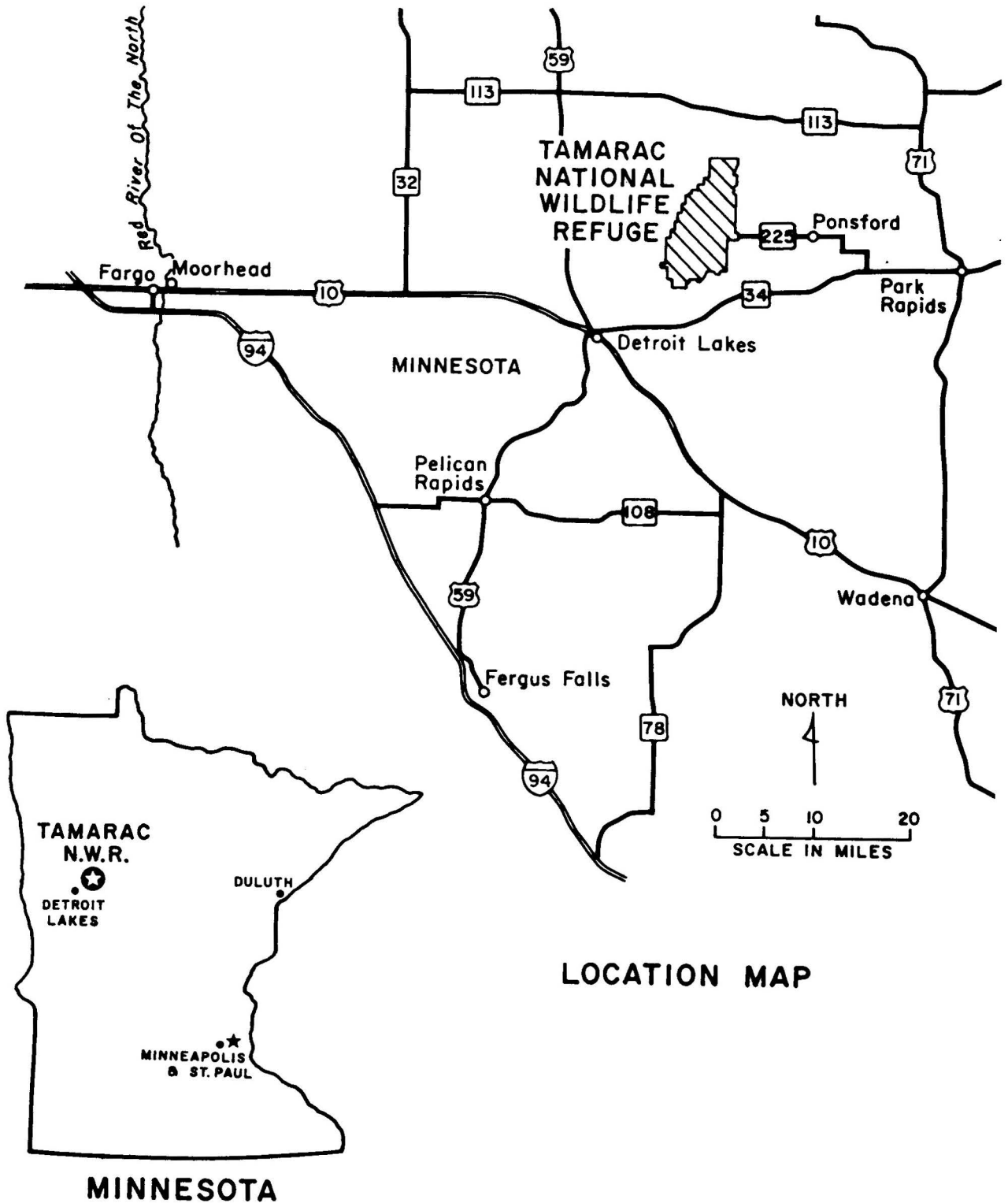
PREFACE

The Wilderness Act of September 3, 1964, (Public Law 88-577), requires that the Secretary of the Interior review every roadless area of 5,000 contiguous acres or more or of sufficient size as to make practical its preservation and use in an unimpaired condition, and every roadless island, regardless of size, within the National Wildlife Refuge System within ten years after the effective date of the Act, and report to the President of the United States his recommendations as to the suitability or unsuitability of each such area or island for preservation as wilderness. A recommendation of the President for designation as wilderness does not become effective unless provided by an Act of Congress.

Sections 4(a) and (b) of the Wilderness Act provided that: (1) the Act is to be within and supplemental to the purposes for which National Wildlife Refuges are established; and (2) wilderness areas shall be administered so as to preserve their wilderness character and shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation and historical use insofar as primary refuge objectives permit. Wilderness designation does not remove or alter an area's status as a National Wildlife Refuge.

TAMARAC NATIONAL WILDLIFE REFUGE

BECKER COUNTY, MINNESOTA



INTRODUCTION

Tamarac National Wildlife Refuge is situated in the rolling timberlands of northwest Minnesota in Becker County, 18 miles northeast of Detroit Lakes, the county seat. The 42,724 acre refuge is just a few miles east of the eastern edge of the tall grass prairie. The refuge lies among many lakes, wooded pot-holes, bogs and marshes which fill the multitude of depressions left by a receding glacier.

The refuge terrain is characterized by successive ridges and lakes with elevations ranging from 1,440 to 1,600 feet above mean sea level. The prime drainage system of the area is the Red River of the north which empties into Hudson Bay. Three tributaries of this main stream, which drain parts of the refuge, are the Ottertail, Egg and Buffalo Rivers. The wetlands of the refuge, which are the principal reason for its being, cover 17,650 acres.

A heavy mantle of glacial drift covers all of Becker County providing the refuge with predominantly sandy moraine underlain with limey, clay loams. Much of the northern portion of the refuge has low fertility due to poor soil structure and steep slopes. Though most areas in this portion of the refuge are classed as submarginal farmlands, some fair to good farmland is found in the southern portion of the refuge.

The purpose of the wilderness study was to determine if any portion of Tamarac Refuge was suitable for wilderness designation. As a result of the study, which is summarized herein, three islands in Tamarac Lake consisting of 65 acres and a 2,073-acre tract in the northwest corner of the refuge are recommended for wilderness designation.

The criteria used for the study were the Wilderness Act and interpretations of that Act as gleaned from congressional hearings. The study began with a broad consideration of natural features and resources, and then studied existing developments and management needs along with future plans and potentials in meeting refuge objectives. Public use and socio-economic aspects present and future were also considered.



An eagle nest near the top of a white pine on the shore of Little Egg Lake attests to the seclusion of the proposal.

HISTORY

The general area, including the refuge, changed hands many times as prehistoric man fought for the life-sustaining rice beds which existed in this vicinity. Fish and wildlife were also abundant and the area was a prized hunting and fishing ground. Shortly before white man came to this area, the Chippewa succeeded in driving the Sioux from the wooded country in Minnesota after prolonged years of battling and took the region for their own.

Originally, the area supported a beautiful stand of white and red pine--once the pride of the Minnesota territory. Logging companies and homesteaders exploited this bountiful resource and by 1900 little of the original pine forest was left. Fires followed logging operations leaving scars which are still visible on some of the trees and stumps. Attempts at farming and grazing of the area continued the disruption of the habitat. Now, northern pin oak (scrub oak), trembling aspen, white birch and balsam fir cover much of the refuge uplands.

The refuge was established by Executive Order in 1938 as a refuge and breeding grounds for migratory birds and other wildlife under the authority of the Migratory Bird Conservation Act and the Migratory Bird Hunting Stamp Act.

The first refuge developments were made by the CCC - Civilian Conservation Corps - in the late 1930's. These included roads and trails, dikes and water control structures, ditches, buildings and fences. For the next twenty-five years, development was done by refuge personnel and by private contractors. In the late 1960's the Job Corps Conservation Center added appreciably to refuge development.



*The sound of a drumming grouse
tells of the wildlife inhabitants.*

*An access road
permits refuge
operations and
public use for
hunting, fishing
and viewing
wildlife.*



DESCRIPTION

Tamarac Refuge lies in a region where surface features result from repeated glaciation that left many depressions, called wetlands, which are now fringed with woods. The 17,650 acres of wetlands consist of 6,810 acres of lakes; 2,311 acres of pot-holes; 3,657 acres of shrub swamps; 2,128 acres of wooded swamp and 2,744 acres of bog.

The 6,810 acres of lakes include 21 lakes within the refuge and portions of four other large lakes. The largest lake within the refuge, Tamarac Lake, contains 2,300 acres. The deeper lakes provide fishing while the shallow lakes provide waterfowl foods and rice. In addition to the lakes, there are approximately 3,000 potholes and three impoundments within the refuge.

Weather records show great variation in temperature extremes ranging from -46 to 107 degrees. Winters are long and cold and frosts can be expected almost any month on the lowlands with the possible exception of June and July. Snowfall of more than 50 inches often occurs with an average of about 46 inches. Average annual precipitation totals 23 inches.

Most of the refuge water supply originates from rain or snow melt. The Egg and Buffalo Rivers originate on the refuge while the Ottertail River passes through the refuge and many nearby lakes. The ground water supply is excellent but is hard and has a high iron content.

Elevations range from 1,486 feet on some lakes to 1,570 feet above mean sea level on several scattered knolls in the northwest corner of the refuge.

The soils are generally sandy and are underlain by limey, clay loams which were left as marginal and terminal moraines as a result of the Wisconsin ice sheet.

When the refuge was acquired, the forested portion had undergone several decades of high grading which left the area with timber stands of overage aspen and poor remnants of upland hardwoods.



Old growth pine remnants of the pioneer days. This grove of white pine was too young to be cut during the logging hey-day.

Much of this area of 15,000 acres now has a dense understory of hazel brush and has been placed under a forest management plan to improve the habitat for wildlife and upgrade the forest. Approximately ten percent of the forested land will be converted to grassland cover for waterfowl and upland game cover.

Mineral resources are unproven with sand and gravel drift deposits found on the refuge and throughout much of the county. A belt of greenstone in precambrian rock underlies the refuge at depth which in places in Minnesota contain sulfide-bearing rock.

About 26,000 acres, or 60 percent, of the refuge is timbered. The coniferous forest that covered most of the uplands before settlement has been largely replaced by second growth aspen and upland hardwoods with extensive areas of dense hazelbrush understory. The primary tree species are trembling and big-tooth aspen, jack pine and mixed hardwoods. Basswood, sugar maple, northern red oak, American elm and white birch are common on the higher sites. On lower, less well-drained sites are green and black ash, balsam poplar and balsam fir, while in the swamps tamarack and black spruce are found.

Openings and fields are usually grassed with quack, brome or Kentucky blue grass. Retired croplands revert to similar cover.

RESOURCES

The refuge was established primarily for waterfowl production and migration habitat. Duck populations have peaked in the spring between 5,000 and 10,000 in recent years, and in the fall from 10,000 to 32,000 birds. Annual days of duck use have averaged 1,340,000 days during the past five years. From 1,000 to 1,700 geese are present in the fall, with lesser numbers in the spring. Goose use days have increased over the years with more than 100,000 days annually since 1970.

Waterfowl production has averaged about 3,700 birds over the last five years with wood duck, mallard, blue-winged teal, common goldeneye and ring-necked duck the most common in descending order. A resident flock of wild Canada geese produce about 100-150 young annually.

Both the golden and bald eagle frequent the refuge with the bald eagle nesting here. Two active eagle nests and two osprey nests are found within the proposal. More than 220 species of birds are listed on the refuge bird list. All major bird groups are well represented--waders, waterfowl, raptors, shorebirds, gulls and terns, owls, woodpeckers and perching birds, including wrens, thrushes, warblers and sparrows. Other interesting species include the common loon, short-eared owl, pileated woodpecker, black-billed magpie and several winter finches.

The common mammals include the white tailed-deer, black bear, beaver, porcupine, otter, foxes and coyote. The timber wolf, an endangered species, has been seen on the refuge on rare occasions and may become more common if the habitat potential for wolves becomes filled to carrying capacity.

Common reptiles and amphibians are the snapping turtle, painted turtle, garter snake, salamanders, leopard frogs and grey tree frogs.

Tamarac Refuge provides excellent sport fishing on several lakes with more than 2,000 annual fishermen visits. The deeper lakes support catchable populations of northern pike,

walleye, largemouth bass, black crappie, bluegill and yellow perch. Tamarac Lake, in which the island proposals are located, is one of the better fishing lakes on the refuge. Other lakes are shallow and highly susceptible to winter fish kills due to oxygen depletion. Thus, each winter the state of Minnesota removes thousands of northern pike for stocking in surrounding lakes where natural production habitat has been destroyed.



Little Egg Lake and nearby marshes in center of proposal.

PUBLIC USE

Recreational use of the refuge has recently shown rapid growth and now numbers more than 15,000 visits annually.

Wildlife observation and fishing are prime activities of refuge visitors; deer, duck and grouse hunting, birding and photography bring a number of people to the area. Also, many visitors picnic and engage in fishing. During years of good wild rice crops, many visitors are drawn to the refuge to observe the Indians in their ricing activities.

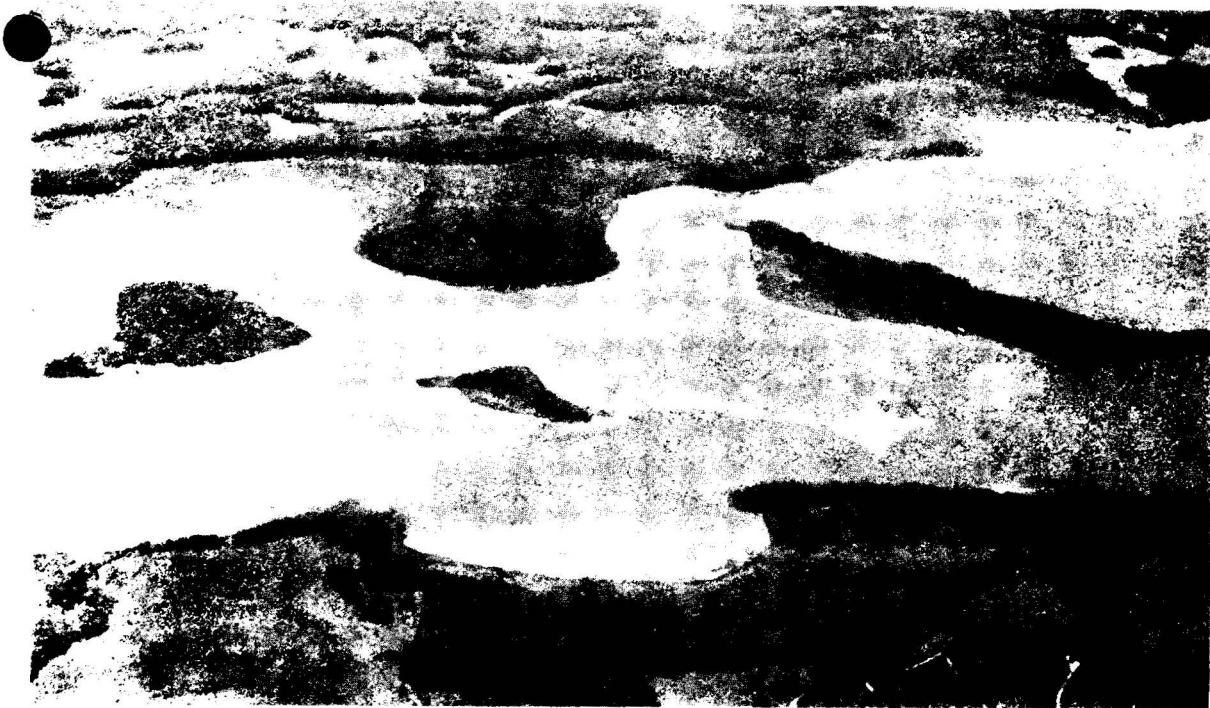
It is not likely that wilderness designation would have any appreciable effect on the total visitor pattern. Visitor use of the islands and area proposed for wilderness status would probably not be changed to any great extent after initial curiosity passes. These areas would be preserved for those people able to participate in appropriate uses.

Benefits accruing to the public from designation of wilderness at Tamarac would include:

- Preservation of an area of old growth pine and a wild, secluded tract with bald eagle and osprey nests.

- Protection of this area from future developments.

- Prevention of vehicle intrusion, except in emergencies involving wild fire or public safety.



Three islands in Tamarac Lake are included in the proposal.



White-tailed deer abound along the edges of the forests, lakes and bogs.

DEVELOPMENTS AND MANAGEMENT

More than thirty miles of county and township roads occur within Tamarac Refuge. These roads are crucial to the steadily increasing public use. The refuge maintains 38 miles of access and patrol roads and 38 miles of additional minimum maintenance trails for logging and other occasional refuge operations. This network of roads and trails is essential to the operation of the refuge. Other old logging roads and foot trails exist which are used by hunters and nature lovers. Some refuge roads and trails will undoubtedly require improvement to adequately care for the continually increasing public use.

Public use facilities, including vault toilets, picnic tables, water pumps and fireplaces, at ten sites require road access and maintenance. Areas of historic archeological interest have been monumented in stone at nine sites along maintained roadways. None are in the proposal.

In order to achieve waterfowl objectives, control structures have been installed on six water areas and several more are planned. Restoration work in the form of filling ditches on former private lands and the development of additional wetlands by dams, dikes, pushouts, level ditching and blow outs are planned in numerous places on the refuge. Road access for development, maintenance and operation will be required.

Logging is the most valuable tool at the disposal of the wildlife manager in the type of habitat prevalent at Tamarac Refuge. Selective and clear cut logging of small areas along with prescribed burning are planned for the future on most of the refuge to achieve management goals.

About ten percent of the forest portion of the refuge will be converted to grassland to augment waterfowl nesting cover. Additional access roads will be necessary to operate these planned developments.



Small clear-cut openings by forest management rotation provides maximum benefits for many species of wildlife.



Agriculture units provide food for large numbers of waterfowl and other wildlife.

SOCIO ECONOMIC CONSIDERATIONS

Tamarac Refuge was established as part of a program for the protection of migratory birds, particularly waterfowl. In the intervening years since the refuge's establishment, public interest in natural resources has broadened as is exemplified in this wilderness proposal.

Though no grazing occurs on the refuge, haying continues at a reduced level. Depending on the amount of hay available, the annual harvest fluctuates from 200 to 1,000 tons. The gradual reduction of haying on the refuge follows the general trend of a diminishing number of farmers in the area. Shifting age composition levels in the farming community are diminishing the importance of this rural activity. Older farmers in the area are retiring and the young people are leaving family farms.

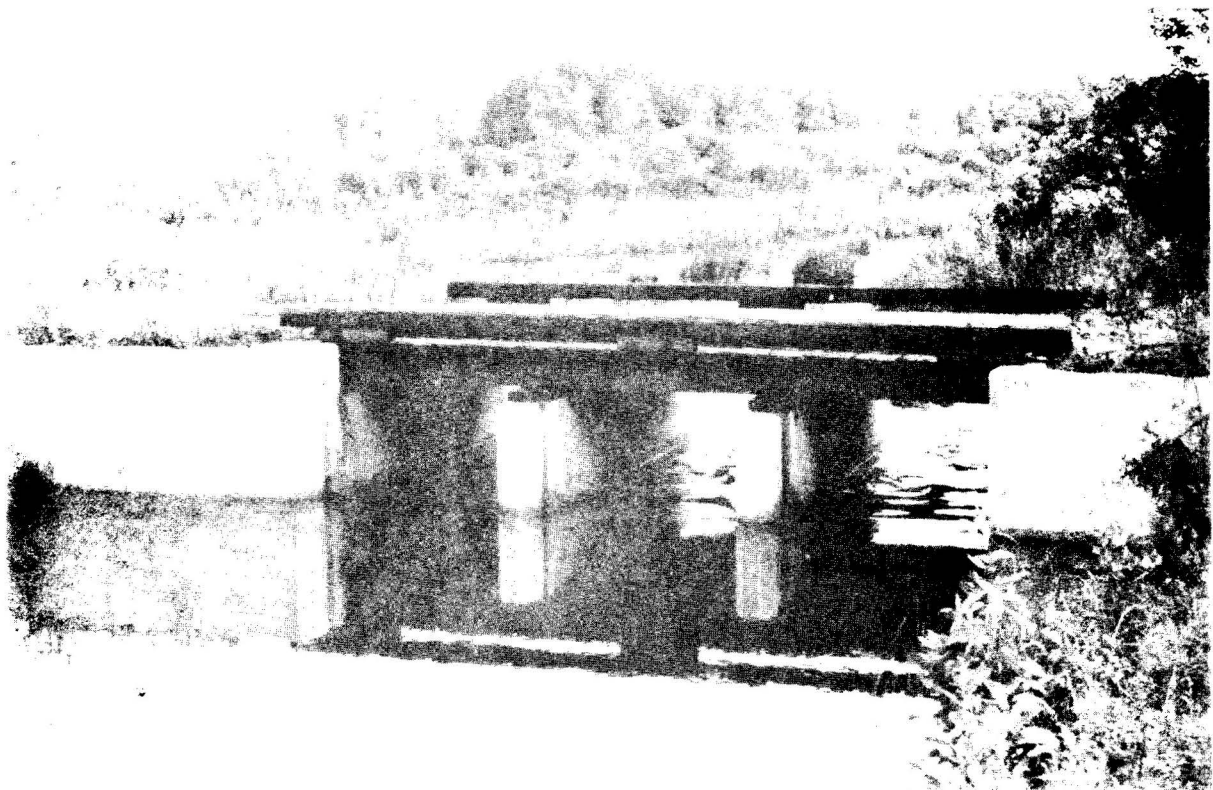
Pulp cutting and the harvest and salvage of other timber are the primary economic uses, and timber products are a significant factor in the local economy. The refuge will continue to increase its contribution to the timber economy under present management plans from non-wilderness portions of the forest lands.

In prehistoric times, wild rice was an important factor influencing the very existence of Indians in the Upper Mississippi River region and has remained so for the Chippewas until recent times. Now it is important in supplementing incomes through sale of rice as a food delicacy. The market has become so lucrative as to encourage commercial development of rice paddies and mechanical harvest in the state.

The fur harvest is important during the years when beaver trapping is permitted, but otherwise trapping on the refuge is not significant.



Canada geese produce from 100 to 150 young annually on the refuge.



Control structures form lakes and marshes for waterfowl and permit water level control to enhance food production.

CONCLUSION

The information gained in this study led to the conclusion that the three islands in Tamarac Lake, totaling 65 acres, and the 2.073 -acre unit in the northwest corner of Tamarac National Wildlife Refuge, are qualified for wilderness designation. Furthermore, wilderness administration of these areas will, in part, permit the Bureau to fulfill the objectives for which the refuge was established.

The remainder of the refuge does not qualify for wilderness for a number of reasons. Most of the wetland and upland habitat requires intensive management and development which is incompatible with wilderness. These management activities are essential to waterfowl which are in low supply and whose habitat is constantly being reduced, as well as to public enjoyment of the refuge's wildlife. Developments, such as roads, power and telephone lines, dikes, ditches, dugouts, blow outs and artificial nesting islands, further preclude the inclusion of the remainder of the refuge in wilderness.

List of Document Parts - House Document 93-319

ART

1. CRATER LAKE NATIONAL PARK, OREGON
2. HAVASU NATIONAL WILDLIFE REFUGE, ARIZONA AND CALIFORNIA (and additions to previously submitted proposals: PINNACLES NATIONAL MONUMENT and SEQUOIA-KINGS CANYON NATIONAL PARK, CALIFORNIA)
3. SEMIDI NATIONAL WILDLIFE REFUGE, ALASKA
4. HAWAIIAN ISLANDS NATIONAL WILDLIFE REFUGE
5. CRAB ORCHARD NATIONAL WILDLIFE REFUGE, ILLINOIS
6. ZION NATIONAL PARK, UTAH
7. KATMAI NATIONAL MONUMENT, ALASKA
8. MILLE LACS AND RICE LAKE NATIONAL WILDLIFE REFUGES, MINNESOTA
9. GLACIER NATIONAL PARK, MONTANA
10. RED ROCK LAKES NATIONAL WILDLIFE REFUGE, MONTANA
11. OLYMPIC NATIONAL PARK, WASHINGTON
12. TAMARAC NATIONAL WILDLIFE REFUGE, MINNESOTA
13. ROCKY MOUNTAIN NATIONAL PARK, COLORADO
14. MISSISQUOI NATIONAL WILDLIFE REFUGE, VERMONT
15. UNIMAK ISLAND (ALEUTIAN ISLANDS NATIONAL WILDLIFE REFUGE), ALASKA
16. Deferred areas: CABEZA PRIETA GAME RANGE, ARIZONA; DESERT NATIONAL WILDLIFE RANGE, NEVADA; and GLACIER BAY NATIONAL MONUMENT, ALASKA
17. Unsuitable roadless areas; SAVANNAH NATIONAL WILDLIFE REFUGE, GEORGIA AND SOUTH CAROLINA; LITTLE PEND ORIELLE and TURNBULL NATIONAL WILDLIFE REFUGES, WASHINGTON; BOWDOIN NATIONAL WILDLIFE REFUGE and NATIONAL BISON RANGE, MONTANA; NATIONAL ELK REFUGE, WYOMING; and HORICON NATIONAL WILDLIFE REFUGE, WISCONSIN

