

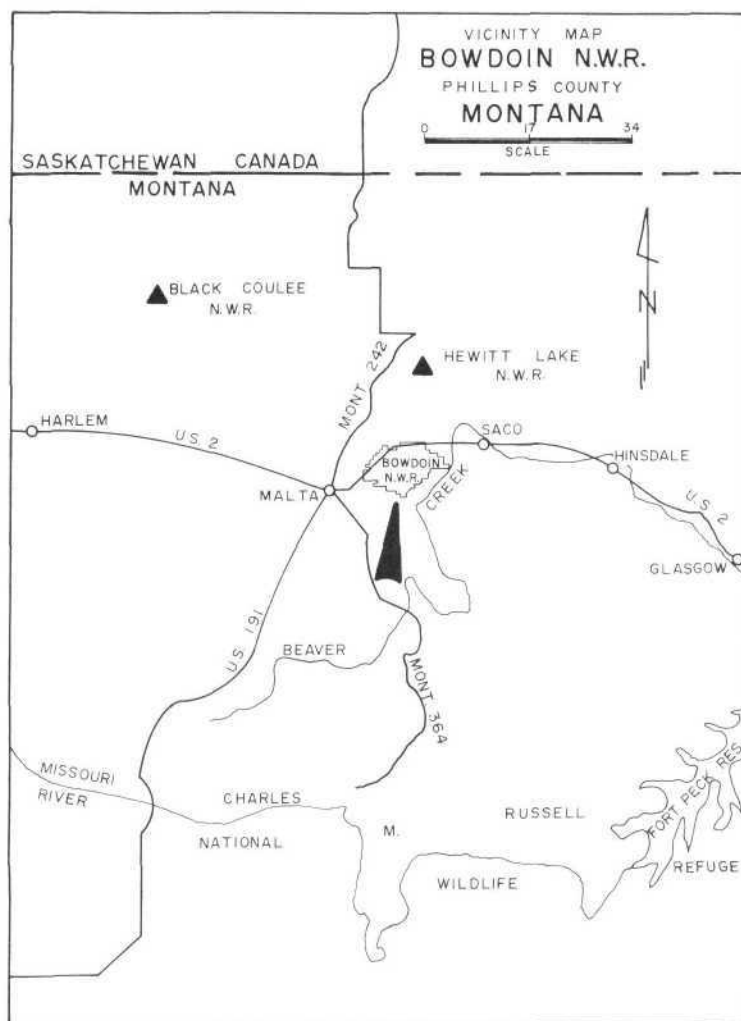


WILDERNESS STUDY SUMMARY

BOWDOIN

NATIONAL WILDLIFE REFUGE

MALTA, MONTANA



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 the Interior, and other Federal agencies.

Preface

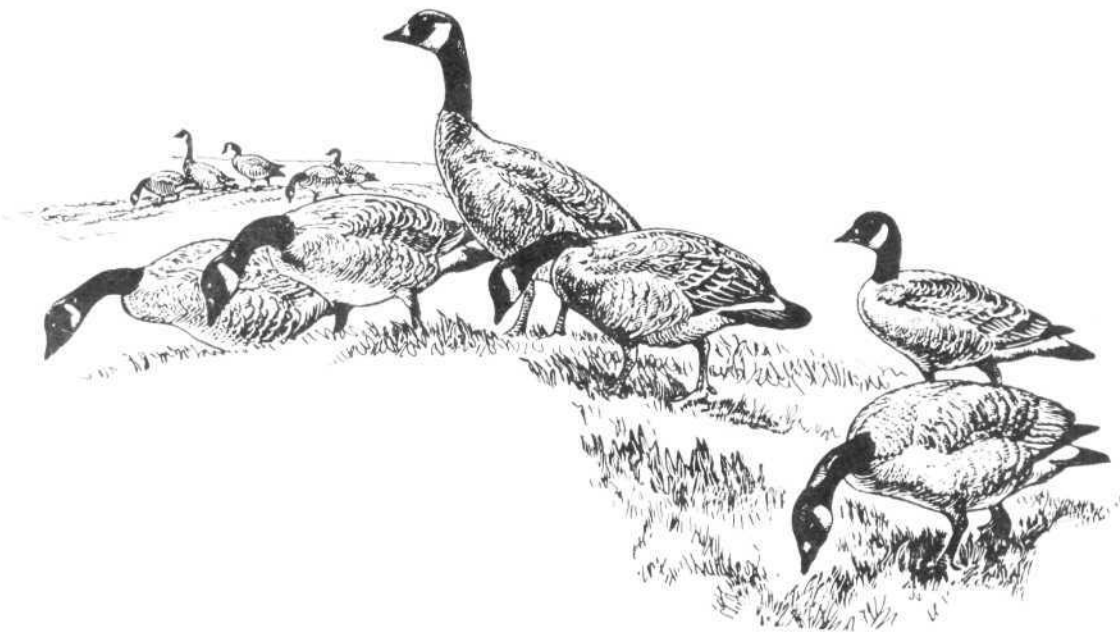
The Wilderness Act of September 3, 1964 (Public Law 88-577) requires that the Secretary of the Interior review every roadless area of 5,000 contiguous acres or more and every roadless island, regardless of size, within the National Wildlife Refuge System within ten years after the effective date of the Act, and report to the President of the United States his recommendations as to the suitability or non-suitability 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.

In defining wilderness, the Act also included areas of less than 5,000 acres that are of sufficient size to make preservation and use in an unimpaired condition practicable.

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.

This *summary* describes the Bowdoin National Wildlife Refuge which has been studied by the Bureau of Sport Fisheries and Wildlife at the direction of the Secretary of the Interior to determine its potential for inclusion in the National Wilderness Preservation System.





Introduction

Bowdoin National Wildlife Refuge consists of 15,500 acres in Phillips County, Montana. Established in 1936 by Executive Order No. 7295, the area is administered by the Bureau of Sport Fisheries and Wildlife.

The refuge is located in the western part of the Central Flyway. The area was established as a breeding ground for migratory waterfowl and other wildlife. While this original goal still applies, the refuge has other primary management objectives including: (1) protection of rare and endangered species, (2) promoting an understanding of wildlife and land ecology for all people, (3) providing compatible levels of wildlife and wildlands oriented recreation, and (4) maximizing the abundance and diversity of all wildlife forms on the refuge.

History

Plains Indians made extensive use of this area in pursuit of wildlife long before the white man appeared. Large herds of northern prairie bison roamed through the Milk River area. Also common were elk, deer, antelope and the plains grizzly. Early nomadic Indian cultures followed these food supplies — first on foot, then with horses.

In the late 1700's fur traders came down from Canada into the Milk River area. By the mid-1800's mining prospectors covered the Black Hills of South Dakota, Montana and Alberta searching for valuable minerals. Soon after, the famous Lewis and Clark expedition traveled the Missouri River, about 80 miles south of the present refuge.

The first settlements were only scattered tiny trading posts dealing in bison hides, but by 1865 most bison were gone and the livestock industry began to flourish. In 1887 the first railroad tracks were laid in Montana. A railroad siding known as Bowdoin was located on the southeast side of the refuge and soon began a railroad town of 400 people. By 1920 the town died almost as fast as it began when the railroad siding was moved to Glasgow, Montana.

Bowdoin Lake was once an important watering source for trailing cattle herds. Grasslands around the lake suffered extensive overgrazing from these watering herds and it was not until the refuge was established in 1936 that the area received protection and development for wildlife purposes.

Description

The refuge is situated in the center of Phillips County and on the lower end of the Milk River Valley. Plateaus and grassland benches surround the refuge with elevations varying from 2,400 to 2,600 feet. The ancestral valley of the Missouri River enters the Milk River basin just west of the Bear Paw Mountains.

During preglacial times, the present Lake Bowdoin was a horseshoe bend of the Missouri River. Ice sheets forced the Missouri and Musselshell Rivers from their old channels to their present location some 50 miles south of the refuge.

The upland portion is typical short-grass prairie with a Western wheatgrass, needle and thread grass, sagebrush, and forb complex. Greasewood and rabbit brush are common on the heavier clay soils. The marsh areas are dominated by sedges, while in the shallow, open water, excellent stands of emergent and aquatic vegetation are found.

The climate is arid with cold winters and hot, dry summers. Annual precipitation averages 12.7 inches. Average frost-free periods range between 119 and 127 days.

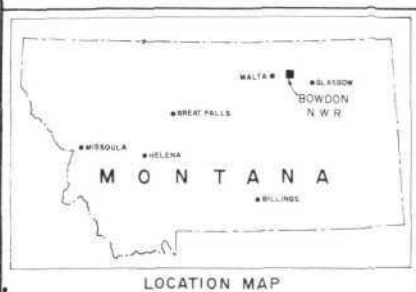
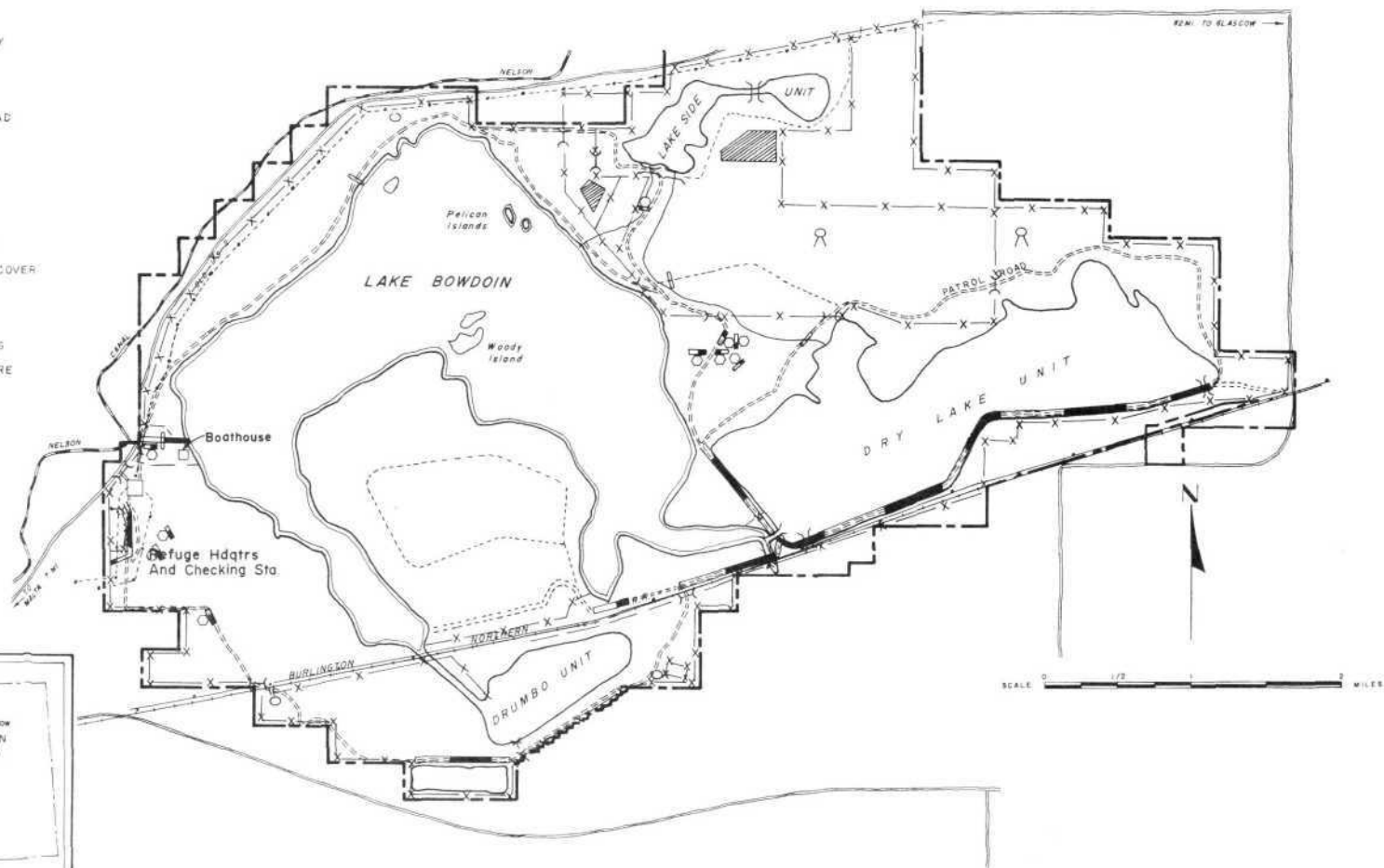


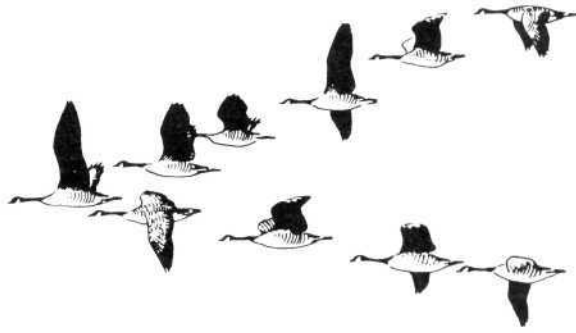
BOWDOIN WILDERNESS PROPOSAL
BOWDOIN N.W.R.

PRELIMINARY--SUBJECT TO CHANGE

LEGEND

- | | |
|--|---------------------|
| | REFUGE BOUNDARY |
| | PAVED HIGHWAY |
| | IMPROVED ROAD |
| | UNIMPROVED ROAD |
| | RAILROAD |
| | DIKE |
| | FENCE |
| | POWER LINE |
| | TELEPHONE LINE |
| | DENSE NESTING COVER |
| | WATER PONDS |
| | BRIDGE |
| | CATTLE CROSSING |
| | WATER STRUCTURE |





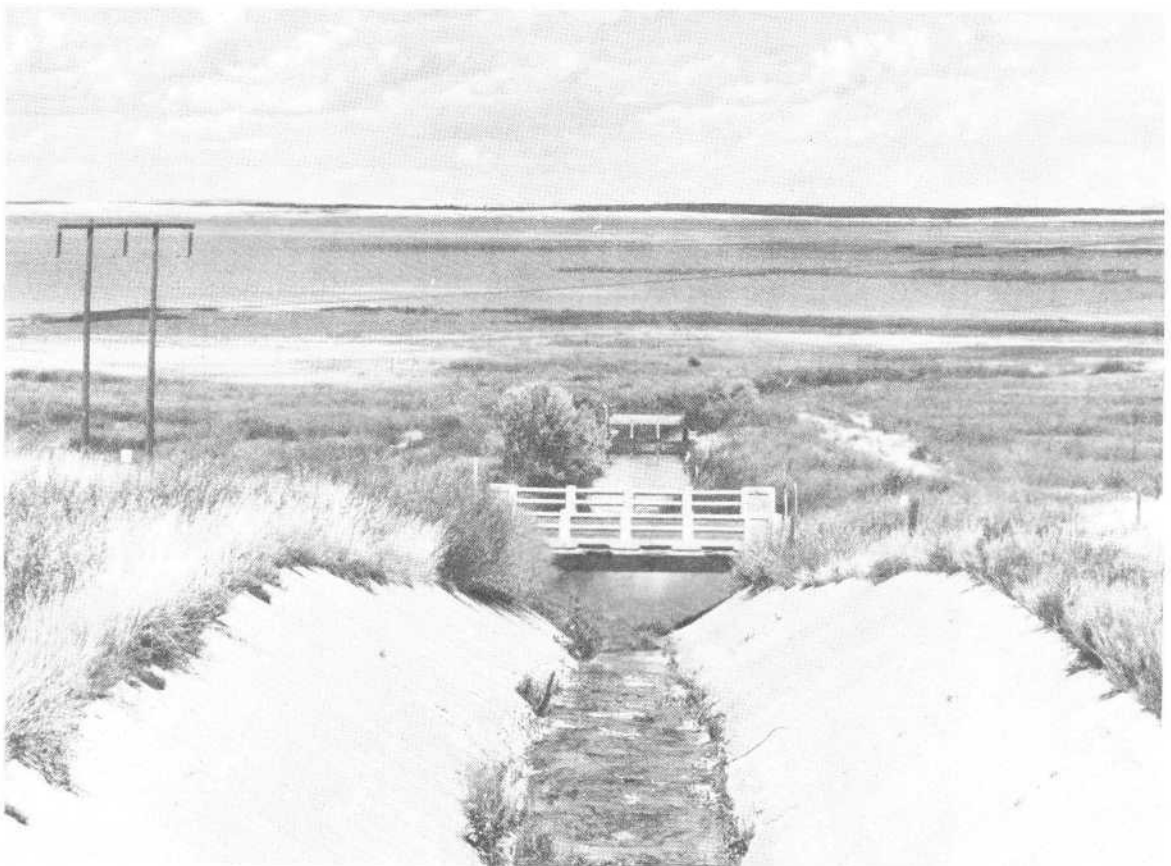
Resources

Since the establishment of the area, development and proper management have resulted in making Bowdoin Refuge a valuable waterfowl production and migration refuge. Currently about 7,000 ducks and 500 geese are produced annually. Whistling swans, Canada, white-fronted and snow geese, and many species of ducks frequent the area during migration periods. Records show that 213 species of birds use the area and over 100 species nest on the area. Colonial birds, sand-hill cranes, ring-necked pheasants and a variety of smaller birds are common.

About 100 antelope and 20 white-tailed deer use the area. Other mammals common to the area are red fox, skunk and white-tailed jackrabbits. Fish and amphibians are not common to Bowdoin Lake due to the shallow water and hard freezing during the winter months.

Some evidence of ancient civilizations exist. Tepee rings are present in a few areas and an occasional artifact is found. A mineral survey has not been performed on the refuge proper, but nearby explorations indicate negative results.

Water is the lifeline between management and waterfowl survival. During years of normal runoff, the Bureau of Reclamation is obligated to furnish up to 3,500 acre-feet of water. Water becomes extremely scarce during the cropland irrigation season since it is needed by private landowners and is not available to the refuge during much of this time.



& Management development

An extensive system of roads, dikes, canals, water-control structures, and fences is located throughout the refuge. A high voltage power transmission line and a county blacktop road cross the northwest area of the refuge. The Burlington Northern Railroad severs a large portion on the south side.

The headquarter site is located on the west side with several buildings and an adjacent picnic area. There are approximately 25 miles of gravel roads with 15 miles open to the public. Barbed wire fences and windmills are used with the grazing program.

Present management consists of frequent inventories of habitat and wildlife populations, intensive management of habitat through water level manipulation, farming, propagating and maintaining exotic dense nesting cover areas, construction and maintenance of artificial waterfowl nesting islands and structures, and public recreation.

Botulism, a waterfowl disease, is almost an annual occurrence. As many as 5,000 birds have been lost during heavy die-offs and as few as 50 in normal years. The availability of fresh water and the immediate salvage of sick and dead birds curtails the spread of botulism.

Several islands are present in Bowdoin and Dry Lakes. All of the islands in Bowdoin Lake have been reduced in size due to erosion, especially Woody Island. This island is vital to colonial nesting birds and will require intensive shoring and riprapping if it is to remain.



Migrating Canada geese

Public use

Prior to 1966 annual visitors to the refuge reached 19,000, but since the relocation of U.S. Highway 2 visitor use has dropped to 6,000 in recent years. Peak use is during May when school groups come to the area to observe wildlife and study environmental education.

Most visitors take the self-guided wildlife auto tour route. Some will stay and have a picnic while associated with wildlife conservation activities. No overnight camping is allowed except by special permit. Ice skating is permitted on a small portion of the refuge.

Waterfowl and upland bird hunting is permitted during the regular fall season. Approximately 400 hunters participate annually. Fishing is limited to a small area along the intake canal. Other recreation activities include photography and sightseeing.



Social & economic considerations

The refuge is located in a very sparsely populated part of Montana. This accounts for the low demands for recreation and special uses. No minerals worthy of exploitation are known to exist on the area but nearby oil and gas fields would indicate that there may possibly be petroleum reserves under the refuge. No worthy archeological or historical findings are currently known to exist on the refuge.

By way of its valuable wildlife abundance and intensive habitat management, the refuge can best serve the public as a place to come and see conservation in practice. School groups using the area as an outdoor laboratory for environmental studies will continue to be encouraged.



Conclusions

As a result of the Bureau's study, it was concluded that none of the Bowdoin National Wildlife Refuge is suitable for inclusion in the National Wilderness Preservation System. The extensive development and intensive management activities needed in order to meet refuge objectives preclude wilderness designation.

The islands that exist in Lakeside Marsh are in essence man-made as the marsh is a result of dikes and waters diverted from irrigation sources. Dry Lake has a number of small natural islands, but this body of water is usually dry four out of ten years.

Of the four islands in Lake Bowdoin, three are man-made and maintained. The fourth island, Woody Island, is rapidly eroding away. Presently, it is two islands with a total area of five acres. If measures are not taken to rebuild the island, it is anticipated it will disappear within 15 years.

The greatest value of the refuge islands is for bird nesting. They will be developed and improved as needed to optimize bird use and production.

As the Nation's principal conservation agency, the Department of the Interior has basic responsibilities for water, fish, wildlife, mineral, land, park, and recreational resources. Indian and Territorial affairs are other major concerns of America's "Department of Natural Resources."

The Department works to assure the wisest choice in managing all our resources so each will make its full contribution to a better United States—now and in the future.

