## MLH\_SummaryOFWildenewStudy Report

## SUMMARY OF WILDERNESS STUDY REPORT HARNEY LAKE STUDY AREA MALHEUR NATIONAL WILDLIFE REFUGE, OREGON

Establishment - Malheur National Wildlife Refuge was established in 1908 (as Lake Malheur Reservation). Later executive orders, proclamations, departmental transfers and land orders brought total area to 180,851 acres.

Location - The refuge is in Harney County, southeastern Oregon. Refuge headquarters is 30 miles south of Burns and Hines (combined population approximately 4,000). Harney Lake is in the northeast part of the refuge; Malheur Lake east of Harney is also under study.

<u>History</u> - Aboriginal settlement occurred at least 9,000 years ago, and these early people depended on Harney Lake for food. White settlers arrived in the region in 1860s, bringing cattle and horses. Over utilization of land and wildlife was prevalent in vicinity.

Harney Lake was little affected by settlement. Alkali and lack of vegetation discouraged farming and grazing, and meat and plume hunters found more favorable conditions in Malheur Lake. Fences and rough roads are about the only signs of human occupancy.

<u>Physical Characteristics</u> - Harney Lake occupies approximately 27,000 acres. The lake bed is very flat and almost devoid of vegetation. A few warm water springs occur, in some years providing the only water in the lake. Alkali forms vast beds. Surrounding the lake are picturesque sand dunes, lava cliffs and dense stands of greasewood, big sagebrush and rabbitbrush.

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Precipitation is approximately 9 inches annually, including about 23 inches of snow. Growing season is normally less than 100 days; temperatures average between 15°F and 85°F.

<u>Resources</u> - Waterfowl production is negligible, but ducks, geese and shore birds use the area heavily in migration. During good water years pelicans, Caspian terns, ring-billed and California gulls nest on islands in the lake.

Vegetation is a minor feature, and no important minerals are known to occur.

Few people visit Harney Lake, as there is little to attract them.

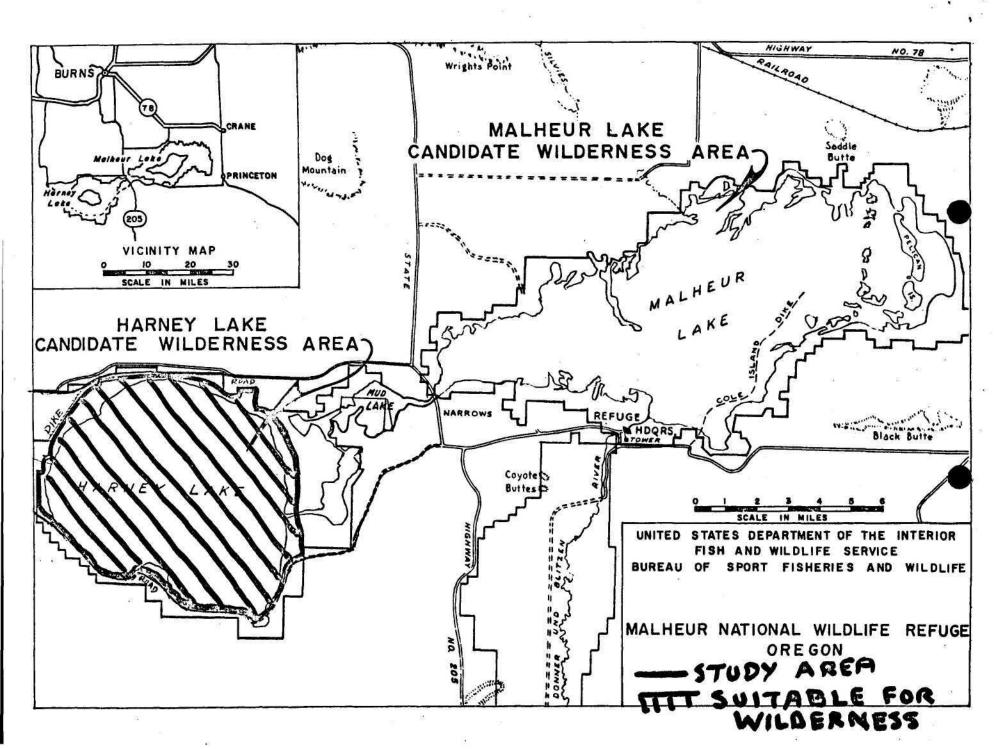
<u>Socio-economic considerations</u> - Wilderness designation is likely to increase public awareness of the refuge, and increased public use should result. However, little increase in visitation can be expected at Harney Lake itself.

Upstream water developments (outside refuge) may one day result in a reduced flow to the lake.

Development and Management - No development is planned. Management will be limited to protection of land and wildlife values.

<u>Conclusion</u> - Approximately 30,000 acres including Harney Lake and a narrow upland fringe are undeveloped. No development or active management is required. Harney Lake study areameets basic requirements for preservation as a National Wilderness.

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Location - The refuge is in Harney County, southeastern Oregon. Refuge headquarters is 30 miles south of Burns and Hines (combined population approximately 4000). Malheur Lake is in the northwest part of the refuge; Harney Lake west of Malheur is also under study.

<u>History</u> - Aboriginal man was in this area at least 9000 years ago and he evidently depended on Malheur Lake wildlife for food. Settlement of the area began in 1868 with a livestock economy developing. Overuse of the land by livestock, upstream diversion of water, and exploitation of wildlife resources led to decline in Malheur marshes. Recent protection and management have reversed past trends.

Portions of the marsh have been homesteaded, farmed, hayed, grazed and diked. Several prominent dikes still exist and the western portion of the lake has numerous fences.

<u>Physical Characteristics</u> - Malheur Lake is a vast shallow marsh. Water cover varies considerably and in the last ten years the lake has been as small as 7000 acres and large as 66,000. The wilderness study area included 48,317 acres of the most frequently flooded habitat. Bulrush and cattail cover large acreages; sago pondweed and other submerged aquatics grow profusely in some portions of the lake. Marsh water and surrounding soils are highly alkaline.

Precipitation is approximately nine inches annually, including about 23 inches of snow. The growing season is normally less than 100 days; temperatures average between 15° F. and 85° F.

<u>Resources</u> - Waterbirds (ducks, herons, shorebirds, etc.) breed abundantly. Waterfowl use the area heavily in fall and spring. Muskrat populations vary with water levels.

Marsh vegetation is important wildlife habitat. Cattle graze portions and help maintain optimum wildlife conditions. No important minerals are known.

Malheur Lake receives heavy use by birdwatchers, photographers, sightseers and waterfowl hunters.

<u>Socio-economic Considerations</u> - Wilderness designation is likely to increase public awareness of the refuge, and increased public use should result. The local economy may be helped by visitor demand for services and supplies.

Cattle grazing, muskrat harvest and waterfowl hunting are current uses of Malheur marsh. All have a place in wildlife management and should continue to be permitted.

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<u>Development</u> - Already existing developments include fences, powerlines and dikes. Proposed is an artificial island for pelican nesting. Plans for an extensive diking system within the lake have been abandoned due to increasing costs and doubtful wildlife value of such a project.

<u>Management</u> - Airthrust boats, low flying aircraft and occasionally autos or pickup trucks will be necessary for wildlife management and other administrative duties within the wilderness study area.

<u>Conclusion</u> - Portions of the Malheur Lake Study Area are fenced, diked, serviced by powerlines or otherwise developed. However, approximately 18,000 acres appear suitable for wilderness designation (see attached map). This acreage is essentially undeveloped, available for public use, and is extremely valuable from a scientific standpoint.

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