

DRAFT

NATIONAL WETLANDS INVENTORY

NOTES TO USERS

KLAMATH FALLS NE

Map Preparation

The wetland classifications that appear on the Klamath Falls NE National Wetlands Inventory (NWI) are in accordance with Classification of Wetlands and Deepwater Habitats of the United States, Cowardin, et al., 1979. Wetland delineations and classifications were produced through stereoscopic interpretation of 1:58,000 scale color infrared photography. Photographs were taken during July, August and September of 1982.

The user of the map is cautioned that, due to the limitation of mapping primarily through aerial photointerpretation, a small percentage of wetlands may have gone unidentified. Changes in the landscape could have occurred since the time of photography, therefore, some discrepancies between the map and current field conditions may exist. Any discrepancies that are encountered in the use of this map should be brought to the attention of Dennis Peters, Regional Wetlands Coordinator, U.S. Fish and Wildlife Service, Region 1, Lloyd 500 Building, Suite 1692, 500 NE Multnomah Street, Portland, Oregon 97232, telephone (503)231-6154

Geography

The Klamath Falls NE 1:100k is located in the southeastern corner of Oregon where it borders California. Included in this area are The Fremont Nation Winter Ridge Forest, Summer Lake, Lake Abert, the upper and lower Chewaucan Marshes and the Chewaucan River. The northeast corner of this 1:100k consists of numerous small basins. The work area is described by Bailey (1980) as the Sagebrush-Wheatgrass Section of the Intermountain Sagebrush Province.

The great basin area consists mostly of semiarid, sagebrush covered plains from which many mountains steeply rise. Much of the area comprises numerous separate interior basins. The lower parts of many basins have a heavy accumulation of alkaline and saline salts. Mountains are well vegetated with upper elevations bearing sparse conifer forests. Streams are rare and few are permanent in the great basin. Flows of these streams vary from year to year and from season to season. Rivers in mountainous regions are swiftly flowing permanent streams whose flows decrease when they meet large valleys.

Sagebrush is the dominant plant of lower elevations in the intermountain sagebrush province. Other important plants are shadscale, four wing saltbush, rubber rabbit brush, horse brush and spiny hopsage. In areas where salt concentration is very high, these plants are replaced by grease wood and saltgrass communities. Forest vegetation includes aspen, cottonwood, russian olive and willow. In the Montane belt, Ponderosa pine generally occupies the lower and more exposed slopes and Douglas

fir the higher and more sheltered ones. In the subalpine belt, the characteristic trees are subalpine fir and Engelmann spruce. Only a few mountains rise high enough to support an alpine belt community.

Climate

Summers of this area are dry and hot, while winters are only moderately cold. Spring comes early except at higher elevations. Total annual precipitation averages only 5 to 20 inches. Almost no rain falls during the summer months, except in the mountains.

Soils

Hydric soil has been defined by the U.S. Conservation Service as soil that in its undrained condition is saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation.

Soils that were formerly wet but are now completely drained are not considered hydric soils. This condition must be determined on a site-specific basis. Also excluded from the definition of hydric soils are soils that were not naturally wet but are now subject to periodic flooding or saturation for specific management purposes (e.g., waterflow impoundments) or flooded by accident (e.g., highway-created impoundments). Moreover, soils that are frequently flooded for short intervals, not long enough to support hydrophytes, do not represent hydric soils.

The dominant soils of all basins and lowland areas in Eastern Oregon are Aridisols; Mollisols are at higher elevations. Narrow bands of Entisols lie in stream flood plains. Salt flats and playas without soils are extensive in lower parts of the basin that have interior drainage. No soil survey is available for this area.

Wetland Communities

Riverine

Perennial rivers in Klamath Falls NE move swiftly and are mostly upper perennial with an unconsolidated bottom. Some slow down and become lower perennial where their gradient changes at the edge of large valleys. These may have an unconsolidated bottom or contain aquatic bed such as algae or aquatic buttercup (Ranunculus aquatilis). Some perennial rivers have sand bars (unconsolidated shores) which flood seasonally or temporarily.

Intermittant streams in the area may flood seasonally or temporarily. Drainage ditches and irrigation canals are intermittant also and were mapped with excavated modifiers. They

may be flooded seasonally or semipermanently. Some contain aquatic bed such as algae, aquatic buttercup (Ranunculus aquatilis) or duckweed (Lemna minor). Some contain emergents and are included in the Palustrine system.

Some riverine systems have their banks lined with persistent wetland vegetation. In cases where wetland vegetation cannot be separately delineated from the riverine system, the wetlands are mapped as linear Palustrine features.

Lacustrine

Major lakes in Klamath Falls NE include Summer Lake and Abert Lake. These lakes are intermittantly exposed and have an unconsolidated bottom. Other lakes in this area may range from intermittantly flooded playas (unconsolidated shore) to permanent lakes. Lakes generally have an unconsolidated bottom, and some contain aquatic bed such as algae, Ranunculus aquatilis, and Lemna minor. East of Winter Ridge, conditions are very dry. Lakes are mostly temporary and many are alkaline. West of Winter Ridge moister conditions prevail and seasonal lakes are common.

Palustrine

Many of the wetlands in Klamath Falls NE are vegetated. This is true of excavated and impounded ponds as well as natural systems. Permanent, semipermanent, and intermittantly exposed ponds usually contain aquatic bed, such as algae, Lemna minor, or Ranunculus aquatilis. Some semipermanent marshes contain cattail (Typha sp.) and hardstem bulrush (Scirpus acutus).

West of the Winter Ridge, seasonal emergent communities typically contain rushes (Juncus sp.), sedges (Carex sp.), iris (Iris sp.), dock (Rumex sp.), yarrow (Achellia millefolium), and timothy grass (Phetum sp.). Many seasonal emergent valleys are enhanced by irrigation. Temporary emergent areas are usually dominated by saltgrass (Distichlis stricta), but may also contain Achellia millefolium, woolly marbles (Psilocarphus brevisismus), Rumex sp., and Iris sp. Shrub wetlands are generally seasonal and dominated by willow (Salix sp.). Forested wetlands may flood temporarily or seasonally and are generally associated with riverine systems. Dominant wet trees include quaking aspen (Populus tremuloides) and lodgepole pine (Pinus contorta). Spring areas usually contain typical seasonal communities. Springheads are saturated and offer easily recognized by the abundance of monkey flower (Mimulus guttatus) associated with them.

East of Winter Ridge, shrub communities are temporary and typically contain Distichlis stricta dominated by silver sage (Artemesia cana) or greasewood (Sarcobatus vermiculatus). Emergent communities commonly occur in temporary basins and may include Psilocarphus brevisismus, gunkweed (Navarretia sp.), primrose (Oenothera tanacetifolia), Downingia insignis, shadscale saltbush (Atriplex sp.), popcorn flower (Plagiobothrys mollis), and Distichlis stricta.

Table 1
COMMON NWI WETLAND CODES

NWI CODE	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION AND PHYSIOGRAPHIC FEATURES
R3UB	Riverine, upper perennial, unconsolidated bottom	River	Open water
R3AB	Riverine, upper perennial, aquatic bed	River with pond weeds and algae	<u>Ranunculus aquatilis</u> Algae
R3US	Riverine, upper perennial, unconsolidated shore	Sand bar	Sand
R2UB	Riverine, lower perennial unconsolidated bottom	River with pond weeds and algae	Open water
R2AB	Riverine, lower perennial, aquatic bed	River	<u>Ranunculus aquatilis</u> Algae
R2US	Riverine, lower perennial, unconsolidated shores	Beach bar	Sand
R4SB	Riverine, intermittent, stream bed	Stream	Sand
L1UB	Lacustrine, limnetic, unconsolidated bottom	Lake	Open water

Table 1
COMMON NWI WETLAND CODES

NWI CODE	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION AND PHYSIOGRAPHIC FEATURES
L2UB	Lacustrine, littoral, unconsolidated bottom	Shallow lake areas	Open water
L2AB	Lacustrine, littoral, aquatic bed	Shallow lake areas with pond weeds	<u>Ranunculus aquatilis</u> Algae <u>Lemna minor</u>
L2US	Lacustrine littoral, unconsolidated shore	Lake shoreline	Sand
PUB	Palustrine, unconsolidated bottom	Ponds with pond weeds	Open water
PAB	Palustrine, aquatic bed	Ponds	<u>Ranunculus aquatilis</u> Algae <u>Lemna minor</u>
PUS	Palustrine, unconsolidated shore	Alkali flats	Sand
PEM	Palustrine, emergents	Marsh, Meadow	<u>Distichlis stricta</u> <u>Juncus sp.</u> <u>Achellia millefolium</u> <u>Iris sp.</u> <u>Mimulus sp.</u> <u>Juncus effusus</u> <u>Scirpus acutus</u> <u>Typha latifolia</u> <u>Carex sp.</u> <u>Rumex sp.</u>
PSS	Palustrine, shrubs	Shrub wetland	<u>Artemesia cana</u> <u>Sarcobatus</u> <u>vermiculatus</u> <u>Vertulatan</u>
PFO	Palustrine, Forested	Forested wetland	<u>Populus tremuloides</u> <u>Pinus contorta</u>

REFERENCES

Bailey, Robert G., 1980. Description of the Ecoregions of the United States, U.S. Department of Agriculture, Forest Service, Ogden, Utah.

Cowardin, Lewis, M., Virginia Carter, Francis C. Golet and Edward T. Laroe, 1979, Classification of Wetlands and Deepwater Habitats of the U.S., U.S. Department of Interior, Fish and Wildlife Service, Washington, D.C.

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