

NATIONAL WETLANDS INVENTORY

NOTES TO USERS

Northern Idaho

1:100,000 Scale Maps Covered

Bonnors Ferry (Sandpoint NE)

Sandpoint (Sandpoint SE)

Coeur D'Alene (Spokane NE)

Saint Maries (Spokane SE)

NATIONAL WETLANDS INVENTORY
1:100,000 MAP NARRATIVE

SANDPOINT NE, SE
SPOKANE NE, SE

INTRODUCTION

The U.S. Fish and Wildlife Service, Office of Habitat Resources, is conducting an inventory of the wetlands of the United States. The National Wetlands Inventory (NWI) is establishing a wetland data base in both map and computer forms for the entire country. The NWI information will serve to identify the current status of U.S. wetlands and can be used as a reference point from which future changes in wetlands can be evaluated.

PURPOSE

The purpose of Notes to Users is to provide general information regarding the production of NWI maps and wetlands found within a relatively similar geographic area. Notes to Users are not intended to include complete description of all wetlands found in the area nor provide complete plant species information.

AREA COVERED

The area is defined by the eastern halves of the Sandpoint and Spokane 1:250,000 regions in the northern part of the Idaho Panhandle (see attached index map A). Starting in the northern part of the study area, the Purcell trench separates the Selkirk Mountains to the west, the Cabinet Mountains to the southeast, and the Purcell Mountains to the northeast. The Kootenai River flows northwestward through a canyon to the mouth of the Moyie River, then westward on to a broad, nearly level floodplain to the Purcell trench. Its floodplain ranges from 1/2 to 3 miles wide. Other valleys include the Clark Fork Valley, the Priest River Valley, and the Blanchard, Hoodoo and Cocolalla Valleys. The Clark Fork and Pend Oreille Rivers, which flow from east to west, are the principal drainageways. The Priest River is the main drainageway that flows north from Priest Lake. Pend Oreille Lake is the largest natural lake in Idaho. Farther south in the study area is the Rathdrum Prairie and Palouse Hills. The Coeur d'Alene River flows through a broad floodplain from east to west into Coeur d'Alene Lake. The St. Joe and St. Maries Rivers flow through the southern part of the area. The St. Joe River flows northwestward through Benewah, Round and Chatcolet Lakes into Coeur d'Alene Lake. Hangman Creek and Rock Creek are the main drainageways that flow northwest into Washington State and the Spokane River. The study area contains several National Forests, including Kaniksu, Kootenai, Coeur d'Alene and St. Joe. Mountain ranges found in the southern part of the study area are the Coeur d'Alene, St. Joe, and Clearwater Mountains, plus the Bitterroot Range.

NATIONAL WETLANDS INVENTORY
1:100,000 MAP NARRATIVE

SANDPOINT NE, SE
SPOKANE NE, SE

INTRODUCTION

The U.S. Fish and Wildlife Service, Office of Habitat Resources, is conducting an inventory of the wetlands of the United States. The National Wetlands Inventory (NWI) is establishing a wetland data base in both map and computer forms for the entire country. The NWI information will serve to identify the current status of U.S. wetlands and can be used as a reference point from which future changes in wetlands can be evaluated.

PURPOSE

The purpose of Notes to Users is to provide general information regarding the production of NWI maps and wetlands found within a relatively similar geographic area. Notes to Users are not intended to include complete description of all wetlands found in the area nor provide complete plant species information.

AREA COVERED

The area is defined by the eastern halves of the Sandpoint and Spokane 1:250,000 regions in the northern part of the Idaho Panhandle (see attached index map A). Starting in the northern part of the study area, the Purcell trench separates the Selkirk Mountains to the west, the Cabinet Mountains to the southeast, and the Purcell Mountains to the northeast. The Kootenai River flows northwestward through a canyon to the mouth of the Moyie River, then westward on to a broad, nearly level floodplain to the Purcell trench. Its floodplain ranges from 1/2 to 3 miles wide. Other valleys include the Clark Fork Valley, the Priest River Valley, and the Blanchard, Hoodoo and Cocolalla Valleys. The Clark Fork and Pend Oreille Rivers, which flow from east to west, are the principal drainageways. The Priest River is the main drainageway that flows north from Priest Lake. Pend Orielle Lake is the largest natural lake in Idaho. Farther south in the study area is the Rathdrum Prairie and Palouse Hills. The Coeur d'Alene River flows through a broad floodplain from east to west into Coeur d'Alene Lake. The St. Joe and St. Maries Rivers flow through the southern part of the area. The St. Joe River flows northwestward through Benewah, Round and Chatcolet Lakes into Coeur d'Alene Lake. Hangman Creek and Rock Creek are the main drainageways that flow northwest into Washington State and the Spokane River. The study area contains several National Forests, including Kaniksu, Kootenai, Coeur d'Alene and St. Joe. Mountain ranges found in the southern part of the study area are the Coeur d'Alene, St. Joe, and Clearwater Mountains, plus the Bitterroot Range.

BAILEY'S ECOREGIONS

The study area falls mainly into Bailey's Columbia Forest Province, with a portion contained within the Palouse Grassland Province.

A mixed coniferous-deciduous forest predominates the Columbia Forest Province, with the Douglas-fir forest and the cedar-hemlock-Douglas fir forest being the major types. Trees are absent at the higher elevations. With a decrease in elevation, the climax trees vary from Engelmann spruce, mountain hemlock and western red cedar to Douglas-fir, western white pine, western larch, grand fir and western ponderosa pine. As elevation decreases further, a belt of grasses and sagebrush may be found. Before being cultivated for wheat production, the Palouse Grassland Province was dominated by prairie grasses. The major grasses dominant now include bluebunch wheatgrass, fescue, and bluegrass.

Climatic conditions for the study area can be generally classified as subhumid, characterized by warm, dry summers and cold, wet winters. Areas in the mountains have cooler summers and colder winters than areas in the valleys. Difference in annual precipitation and temperature generally are associated with changes in elevation. The greatest amount of precipitation is received in the higher mountains in the northwestern part of the study area. Average annual precipitation in the mountains is 50 inches, compared to 25 inches in the drier southern part of the study area. The average annual temperature ranges from 38° to 42°F in the higher mountains, to 47°F in the warmer Rathdrum Prairie area.

The terrain of the study area can be described as rugged, forested, mountainous or hilly terrain with comparatively narrow valleys. The highest elevations are in the northern part of the study area where mountain peaks are more than 7,000 feet high. Most of the region has been glaciated and is dotted with many lakes, both large and small. In the Rocky Mountain trenches there are flat or nearly flat valleys, some of which are several miles wide. The Rathdrum Prairie is a glacial-outwash where soils were deposited by waters from melting glaciers. It has level or gently sloping terraces, with an elevation of about 2,200 feet. Part of the rolling and hilly loess-covered prairie region called the Palouse hills falls into this study area. The average elevation is 2,700 feet.

Soil is an important element of hydric conditions and is one of the criteria used to define wetlands. Northern Idaho soils that are well drained to moderately well drained include the Rubson-Porthill association found on high terraces above the Kootenai River floodplain and the Larkin-Southwick, Taney and Santa soils of southwestern and southcentral Kootenai County. Well drained to excessively well drained soils include the Avonville-Garrison-McGuire and the Kootenai-Bonner associations found on outwash terraces and terrace slopes north of the Spokane River in the Rathdrum Prairie.

Poorly drained (hydric) soils which can support wetland vegetation include the Pywell-Cald-Cougarbay and the Slickens-Xerofluvents associations found on floodplains and low stream terraces along the Coeur d'Alene River. Other hydric soil associations are Hoodoo-Pywell-Wrencoe and Pokey-Potlatch.

MAP PREPARATION

Wetland classification for the NWI maps is in accordance with "Classification of Wetlands and Deep-Water Habitats of the United States," Cowardin, et al, 1979.

Wetland classification and delineations were produced by air photo interpretation of high level aerial photography. The photography used was 1981, 1982 and 1983, color infrared at a scale of 1:58,000. The photography was taken during July and August, part of the dry summer months. A field trip was conducted from October 1 to October 5, 1984, designed to relate various photographic characteristics to actual wetland classification. Where available, soil surveys helped in the delineation of wetlands.

Collateral data included U.S.G.S. topographic maps (7.5 and 15 minutes), soil, climate, and vegetation information (Barker, 1981; Chugg and Fosberg, 1980; Weisel, 1980, 1981, and 1982). Large-scale NWI wetland maps (1:24,000 scale) are available for the U.S.G.S. 7.5 minute topographic sheets indicated on index map B.

USER CAUTION

The map documents were prepared primarily by stereoscopic analysis of high altitude aerial photographs. Wetlands were identified on the photographs based on vegetation, visible hydrology, and geography. The aerial photographs typically reflected conditions during the specific year and season when they were taken. In addition, there is a margin of error inherent in the use of aerial photographs. Thus a detailed on-the-ground and historical analysis of a single site may result in revision of the wetland boundaries established through photographic interpretation. In addition, some small wetlands and those obscured by dense forest cover may not be included on the map document.

Federal, State and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define limits of proprietary jurisdiction of any Federal, State, or local government or to establish the geographical scope of regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, State, or local agencies concerning specific agency regulatory programs and proprietary jurisdictions that may affect such activities.

Seasonally Flooded (C) -- Surface water is present for extended periods, especially early in the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is very variable, extending from saturated to a water table well below the ground surface.

Semi-permanently Flooded -- Surface water persists throughout the growing season in most years. Land surface is normally saturated when water level drops below soil surface.

Permanently Flooded - Water cover land surface throughout the year in all years.

Special modifiers included on these NWI maps, where applicable, are:

Beaver Impounded (b): Created or modified by beaver activity. Usually along a mountain stream.

Partly Drained (d): The water level has been artificially lowered, but the area is still classified as wetland because soil moisture is sufficient to support hydrophytes. Drained areas are not considered wetland if they can no longer support hydrophytes.

Diked Impounded (h): Created or modified by a barrier, dike, or dam which obstructs the inflow or outflow of water.

Excavated (x): Lies within a basin or channel excavated by man.

TABLE 1. SUMMARY OF WETLANDS AND DEEPWATER HABITATS

NWI CODE	NWI DESCRIPTION	COMMON DESCRIPTION	VEGETATION SUBSTRATE
L1OW, L2OW	Lacustrine open water	Lake	Open water
L2UB	Lacustrine unconsolidated bottom	Lake bottom	Unvegetated mud, sand, gravel
L2US	Lacustrine unconsolidated shore	Lake margin	Unvegetated mud, sand, gravel
L1AB, L2AB	Lacustrine aquatic bed	Pond weeds, water weeds	<u>Nymphaea</u> spp. (water lily) <u>Lemna</u> spp. (duckweed) <u>Potamogeton</u> spp. (pond weed) <u>Myriophyllum</u> spp. (milfoil)
R2OW	Riverine lower perennial open water	River, stream	Open water, year round flow
R3OW	Riverine upper perennial open water	River, stream	Open water, year round flow
R4SB	Riverine intermittent streambed	Intermittent stream	Unvegetated river bottom
R2US	Riverine perennial unconsolidated shore	River bar, river flat	Unvegetated mud, sand, gravel
POW	Palustrine open water	Pond	Open water
PAB	Palustrine aquatic bed	Pond weeds	<u>Nymphaea</u> spp. (water lily) <u>Lemna</u> spp. (duckweed) <u>Potamogeton</u> spp. (pondweed) <u>Myriophyllum</u> spp. (milfoil)
PEM1	Palustrine emergent, persistent.	Marsh, wet meadow	<u>Scirpus</u> spp. (bulrush) <u>Typha</u> spp. (cattail) <u>Juncus</u> spp. (rush) <u>Eleocharis</u> spp. (spikesedge) <u>Carex</u> spp. spp. (sedge) <u>Phalaris</u> spp. (reed canary grass)
PSS1	Palustrine scrub/shrub broadleaf deciduous	Shrub swamp	<u>Salix</u> spp. (willow) <u>Alnus rubra</u> (red alder) <u>Spiraea douglassi</u> (hardback)
PFO1	Palustrine forested broadleaf deciduous	Forested wetland	<u>Salix</u> spp. (willow) <u>Crataegus</u> spp. (hawthorn) <u>Alnus rubra</u> (red alder) <u>Populus trichocarpa</u> (cottonwood)

Index Map A

LITERATURE CITED

- Bailey, R.G., 1978. Description of the Ecoregions of the United States. U.S. Dept. of Agriculture, Forest Service, 77 pp.
- Barker, R.J., 1981. Soil Survey of Latah County Area, Idaho. U.S. Department of Agriculture, Soil Conservation Service, 166 pp.
- Chugg, J.C. and M.A. Fosberg, 1980. Soil Survey of Boundary County Area, Idaho. U.S. Department of Agriculture, Soil Conservation Service, 72 pp.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRue, 1979. Classification of Wetlands and Deepwater Habitats of the United States.