



United States
Department of the Interior

Fish and Wildlife Service

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In Reply Refer To:

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NATIONAL WETLAND INVENTORY

NOTES TO USERS

Florence to Lakeside, Oregon

1:100,000 SCALE MAPS COVERED

Reedsport (Coos Bay 1)

USER NOTES: REEDSPORT, OREGON, WETLAND MAP

1. Map Preparation

Wetland classification for the National Wetlands Inventory (NWI) wetland map overlay to the Reedsport 1:100,000 scale map are in accordance with Cowardin, et. al., October 1977.¹ Delineations were produced through interpretation of U.S.G.S. black and white aerial photography at a scale of 1:80,000 taken during August 1975. The photographs were viewed stereoscopically at 4X and 6X magnification. Delineations were enlarged using a zoom-transferscope to 1:62,500 overlays to fit U.S.G.S. 15' topographic map series. The 1:100,000 scale overlay was prepared from the 15' series overlays. Since a U.S.G.S. 1:100,000 scale base map is not yet available for Reedsport, a wetland map overlay was prepared rather than delay distribution of the products. The 1:100,000 scale base map was prepared by enlarging and then quartering the 1:250,000 scale map series.

Collateral aerial photography used included July 1969 NASA 1:120,000 true color and June 1973 and July 1974 NASA 1:127,000 and 1:130,000 color infrared.

Limited field checks were conducted during the winter of 1977.

The Project Officer for production of the wetland map was Dennis Peters, Regional Wetland Coordinator, U.S. Fish and Wildlife Service, Region 1, Lloyd 500 Building, 500 N.E. Multnomah Street, Portland, Oregon 97232, telephone (503) 231-6154. Aerial photo interpretation was completed by the Environmental Remote Sensing Applications Laboratory (ERSAL), Oregon State University, Corvallis, OR. Maps were prepared by the NWI National Team in St. Petersburg, Florida.

The user of the map is cautioned that, due to the limitations of mapping primarily through photo interpretation, a small percentage of wetlands may have gone unidentified. Inasmuch as change to the landscape could have occurred since the time of photographic acquisition, some discrepancies between the map and subsequent local field surveys may occur. Any noted discrepancies or land use changes should be provided to the Regional Wetland Coordinator, U.S. Fish and Wildlife Service.

^{1/} Cowardin, Lewis M., Virginia Carter, Francis C. Golet, and Edward T. LaRoe. 1977. "Classification of Wetlands and Deep-Water Habitats of the United States (An Operational Draft)", U.S. Fish and Wildlife Service, October 1977.

2. Geography

The Reedsport 1:100,000 scale map is located along the central Oregon coast. Bailey's Ecoregion classification identifies the area as within the Marine Division, Pacific Forest Province, Sitka Spruce-Cedar-Hemlock Forest (M2411) and Cedar-Hemlock-Douglas fir Forest (M2413). The Physical Subdivision and Land Surface Form is Pacific Mountain, coast ranges; low mountains.

Soils data were not available for this report.

The climate of the Pacific northwest coastal region is marine, dominated by the Pacific Ocean and having high rainfall and a moderate temperature range. Temperature ranges are 14^o-16^oC (57^o-61^oF) in the warmest months and 6^o-8^oC (43^o-46^oF) in the coldest months. Annual precipitation is 180-200 cm (70-80 inches).

3. Wetland Communities

Deep-water habitats are areas that are permanently flooded (except during periods of extreme drought) and are characterized by open water on the aerial photography. These habitats are classified as open water, or where collateral data or field checks are available, as unconsolidated bottom. Deep-water habitats are found in all systems except the Palustrine system.

Unvegetated wetlands may include beach/bars, flats, and streambeds. Estuarine flats are seasonally covered with algal mats and/or lined with various emergent vegetation. Ulva spp. and Enteromorpha spp. are common algae found on the flats. Scattered patches of eelgrass (Zostera spp.) may be present on these flats. Estuarine streambeds are tidal sloughs that are dewatered during low tide. These are often lined with sedge (Carex spp.), tufted hair grass (Deschampsia caespitosa), creeping bent grass (Agrostis alba), gum plant (Grindelia integrifolia) and salt bush (Atriplex patula).

Estuarine intertidal aquatic beds are comprised of eelgrass (Zostera spp.). Eelgrass is tolerant to long-term submergence and is generally associated with an irregularly exposed water regime modifier, i.e., substrate exposed less often than daily. This habitat was classified as Type 19, Sounds and Bays according to Fish and Wildlife Service's Circular 39, "Wetlands of the United States" issued initially in 1956 and reissued in 1971. Important environmental values of the aquatic beds include stabilizing and trapping sediments, contributing to primary productivity, providing a direct and indirect food source for numerous fish and wildlife as well as providing habitat for juveniles of many important seafood organisms.

Estuarine intertidal emergent wetlands are extremely important wetland types identified on the Reedsport map. The habitats are often referred to as salt marshes. Intertidal emergent wetlands are

characterized by a regularly flooded water regime modifier, i.e., flooded daily or an irregularly flooded water regime modifier, i.e., flooded less often than daily. The dominant plant species include pickleweed (Salicornia virginica), seaside arrow grass (Triglochin maritima), salt grass (Distichlis spicata), Lyngby's sedge (Carex lyngbyei), bullrush (Scripus validus), three-square rush (S. americanus), tufted hair grass and salt rush (Juncus lesueurii). Estuarine intertidal emergent wetlands are classified as Type 18 - regularly flooded salt marshes and Type 16 - coastal salt meadows in Circular 39. The contribution of salt marshes to estuarine productivity and as wildlife habitat is well documented.

Lacustrine limnetic open-water is the classification for numerous lakes present within the Reedsport map area. These deep-water habitats are usually unvegetated although there may be beds of common elodea (Elodea canadensis) which was not detectable from the aerial photography. The lakes often have a band of bullrush (Scirpus validus) along the shoreline. If this band of emergent vegetation was large enough to be a mappable unit, it was classified in the Palustrine since the emergent vegetation is persistent. Permanent waters of streams, reservoirs and deep lakes were not included in Circular 39. However, several of the smaller Lacustrine system classification can be considered Type 5 - inland open fresh water.

The riverine system includes tidal, lower perennial and upper perennial open water wetlands. The rivers are generally unvegetated although they are generally lined with willow (Salix spp.), red alder (Alnus rubra) and western hemlock (Tsuga heterophylla).

Palustrine emergent and Palustrine scrub/shrub wetlands dominate the fresh (interior) wetlands.

within the Reedsport map area, Palustrine emergent wetlands are evident throughout the dunes area, adjacent to the permanent lakes, and as diked former tidelands in the Estuarine and Riverine (tidal) systems.

Palustrine emergent wetlands are found in the deflation plains and are characterized by several rushes (Juncus spp.), sedge (primarily slough sedge - Carex obnupta and large-headed sedge - C. macrocephala), Pacific silverweed (Potentilla pacifica) and spring-bank clover (Trifolium wormskjolkii). Other species associated with these wetlands are California aster (Aster chilensis), golden-eyed grass (Sisyrinchium californicum), creeping buttercup (Ranunculus flammula) and several species of bent grass (Agrostis spp.). These Palustrine emergent wetlands generally have a seasonally flooded water regime with surface water present for 3-6 months during the year. The water table during the summer months ranges from 6-18 inches below the surface. According to Circular 39, these wetlands are described as Type 1 - seasonally flooded basins or flats, Type 2 - inland fresh meadows, Type 3 - inland, or Type 4 - inland deep fresh marshes.

Palustrine emergent may also be present as a fringe marsh of the deeper lakes. These areas are characterized by the bullrush and by a semi-permanently or permanently flooded water regime modifier. These fringe marsh areas are a part of the lake ecosystem but since the vegetation is persistent, i.e., dominated by species that normally remain standing at least until the beginning of the next growing season, the areas, by definition, are classified in the Palustrine System rather than Lacustrine System. Type 5 in Circular 39 - inland open fresh water (marshy border may be present) describe the Palustrine emergent wetlands lining the deep lakes.

The course of plant succession is toward a Palustrine scrub/shrub wetland, many of which were identified in the Reedsport map. Common plant species of the scrub/shrub wetlands are coast willow (Salix hookeriana) and wax myrtle (Myrica californica). Coast pine (Pinus contorta), Sitka spruce (Picea sitchensis) and red alder are often mixed with the coast willow and wax myrtle. The proper water regime modifier is seasonally flooded. The Palustrine scrub/shrub wetlands were classified as Type 6 - shrub swamps in Circular 39.

The "Oregon Dunes National Recreation Area Resource Inventory" provides a summary of wildlife use and importance of the dunes complex, both upland and wetland. The wetlands associated with the dunes are part of the transitional zone between two diverse life zones, the ocean and coastal mountain forest. Migrant or wintering waterfowl and shorebirds feed and nest in these wetlands. Deflation plain wetlands are also important as nesting areas for resident waterfowl, shorebirds, and wading birds. Aquatic mammals, otter, beaver, and muskrats also use these wetlands.

Of special note throughout the Reedsport base map area are Palustrine emergent wetlands that have been or are being used as pasture areas for dairy cattle. These wetlands generally have waterlogged soils, are without standing water in the summer but with shallow water in the winter, and are characterized by soft rush (Juncus effusus) and various grasses. Sedges, skunk cabbage (Lysichiton americanum), and Pacific silverweed may be present. These Palustrine emergent wetlands are former tidelands which have been diked and drained or river terraces that have been drained. These areas are often described as wet meadows and would be considered Types 1 or 2 in Circular 39. Wildlife habitat values of these areas have not yet been adequately identified. However, these areas are important as feeding areas for waterfowl and resident bird species.

4. wetland Loss and Vulnerability

Historically, numerous tidal marshes have been diked and drained for conversion to dairy cattle pasture. Diking of estuarine intertidal emergent wetlands does not appear to be a major on-going activity.

Dredging and selection of spoil disposal sites are on-going activities which affect wetlands. Dredging destroys habitat at the construction site as well as impacting wetland at the spoil disposal site.

Although wetland losses have been greatly slowed by legislation requiring Federal and/or State permits for work which could affect wetland resources, some wetland alteration still occurs. Piece-meal filling of wetlands, both estuarine and fresh, for residential, commercial, and industrial developments continues. Second homes and recreational developments often encroach on wetlands. For example, Steamboat Island in the Umpqua estuary is often referenced as a potential spoil disposal or development site.

5. Sources of Additional Information

The purpose of this report is to provide general information regarding the production of the map and the wetlands found within the area of this map. It does not include descriptions of all wetlands found in the area nor complete species information. For additional information, the following publications are recommended:

Akins, Glenn Jr. and Carol A. Jefferson. 1973. Coastal wetlands of Oregon. Oregon Coastal Conservation & Development Commission, Florence, Oregon. 190 pp.

Biological Service Program. 1978. An ecological characterization of the Pacific Northwest coastal region. U.S. Fish and Wildlife Service Contract No. 14-16-0001-77-019, Portland, Oregon. var. pp.

Franklin, Jerry F. and C.T. Dyrness. 1973. Natural vegetation of Oregon and Washington. Ge. Techn. Rpt. PNW-8. U.S. Forest Service, Portland, Oregon. 417 pp.

Jefferson, Carol A. 1975. Plant communities and succession in Oregon coastal salt marshes. Ph.D. dissertation, Oregon State University, Corvallis, OR 192 pp.

Snaw, Samuel P. and C. Gordon Fredine. 1956. Wetlands of the United States. U.S. Fish and Wildlife Service, Circular 39, Washington, D.C. 67 pp.

U.S. Army Corps of Engineers. 1978. Preliminary guide to wetlands of the west coast. Technical Report 4-78-4 U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss. 66 pp.

_____ 1972. Resource Inventory Report for the Oregon Dunes National Recreation Area. U.S. Forest Service, Pacific Northwest Region, Portland, OR 294 pp.

Wiedemann, Alfred, M; LaRea J. Dennis; and Frank H. Smith. 1974. Plants of the Oregon coastal dunes. Oregon State University Book Stores, Inc., Corvallis, OR 117 pp.

CLASSIFICATION/COMMUNITY TYPE CORRELATIONS

Map Designation	Type (Cowardin, et al Oct 1977)	Type Circular 39	Common Name	Representative Plant Species
EIUB	Estuarine, subtidal unconsolidated bottom	19	Estuary, bay	Unvegetated
E2FL	Estuarine, intertidal, flat (irregularly exposed) ^{1/}	15	Mud flats	Algae (<u>Ulva</u> , sp. and <u>Enteromorpha</u> sp.)
	(regularly flooded)	15	Mud flats	Algae
E2AB	Estuarine, intertidal, aquatic bed (irregularly exposed)	19	Eelgrass beds	Eelgrass (<u>Zostera</u> sp.)
E2SB	Estuarine, intertidal streambed (irregularly exposed)	--	Tidal slough	Unvegetated (lined with sedges (<u>Carex</u> sp.))
E2EM	Estuarine, intertidal, emergent (regularly flooded)	16 or 18	Tidal marsh (low salt marsh)	Pickleweed (<u>Salicornia virginica</u>) Three-square bullrush (<u>Scirpus americanus</u>) Salt grass (<u>Distichlis spicata</u>) Seaside arrowgrass (<u>Triglochin maritima</u>)
		16 or 18	Tidal marsh (sedge marsh)	Lynby's sedge (<u>Carex lynbyei</u>)
E2EM	Estuarine, intertidal, emergent (irregularly flooded)	17	Tidal marsh (high salt marsh)	Tufted hair grass (<u>Deschampsia caespitosa</u>) Salt grass Salt rush (<u>Juncus leseurii</u>) Creeping bent grass (<u>Agrostis alba</u>)

^{1/} Water regime modifier in parenthesis.

Map Designation	(Cowardin, et al Oct 1977)	Type Circular 39	Common Name	Representative Plant Species
RIUB	Riverine, tidal, unconsolidated bottom (permanently flooded)	--	Tidal river	Lined w/willow (<u>Salix</u> sp.) and Red Alder (<u>Alnus rubra</u>)
LIOW	Lacustrine, limnetic, open water (permanently flooded)	5	Lake	Unvegetated (may be lined w/ bullrush, <u>Scirpus</u> sp. and include patches of elodea, <u>Elodea</u> sp.)
L2FL	Lacustrine, littoral, flat (seasonally or semi-permanently flooded)	--	Lake bed	Unvegetated; may be vegetated by invading species: sedge (<u>Carex</u> sp.), willow, miscellaneous forbes and grasses.
POW	Palustrine, open water	5	Pond	Unvegetated
PAB	Palustrine, aquatic bed (permanently flooded)	4	Lily Pond	Waterlily (<u>Nymphaea</u> sp.)
PEM	Palustrine, emergent (seasonally flooded)	1,2,3,4	Marsh, swamp	Rushes (<u>Juncus</u> sp.) Slough sedge (<u>Carex obnupta</u>) Pacific silverweed (<u>Potentilla pacifica</u>)
	Palustrine, emergent (seasonally flooded)-diked	1,2	Diked marsh	Soft rush (<u>Juncus effusus</u>) various grass & forbes
PSS	Palustrine, scrub/shrub (seasonally flooded)	6	Wet hummock swamp	Coast willow (<u>Salix hookeriana</u>) Wax myrtle (<u>Myrica californica</u>)
			Riparian strip	Coast willow Red alder (<u>Alnus rubra</u>)
PFO	Palustrine, forested (seasonally or temporarily flooded)	7	Riparian strip	Coast willow Red alder Black cottonwood (<u>Populus trichocarpa</u>)

