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NATIONAL WETLANDS INVENTORY

NOTES TO USERS

SEAL BEACH TO POINT CONCEPTION,

CALIFORNIA

1:100,000 SCALE MAPS COVERED

Long Beach	(Long Beach NE)
Los Angeles	(Los Angeles SE)
Santa Barbara	(Los Angeles SW)
Point Conception	(Santa Maria 2)

NATIONAL WETLANDS INVENTORY
NOTES TO USERS

SEAL BEACH TO POINT CONCEPTION, CALIFORNIA

1. PURPOSE

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

2. AREA COVERED

The area covered is defined by the Long Beach, Los Angeles, Santa Barbara, and Point Conception USGS 1:100,000 intermediate scale maps (see attached index map A). The area extends along the southern California coast from 33°30'N. latitude (approximately Seal Beach) to 34°30'N. latitude (approximately Pt. Conception) and extends to the interior to 118°00' W. longitude (approximately Arcadia and Buena Park).

According to Bailey's ecoregions the area is in the humid temperate domain, Mediterranean Division, California Chapparal Province. The climate is characterized by hot, dry summers and rainy mild winters. Annual precipitation ranges from 12 to 40 inches.

According to the 1970 National Atlas, the immediate coastal area is freeze-free from February through December; the interior area, March through December.

3. MAP PREPARATION

Wetland classification for the NWI maps is in accordance with "Classification of Wetlands and Deep-Water Habitats of the United States (An Operational Draft)," Cowardin, et al, 1977.^{1/}

Wetland classification and delineations were produced by air photointerpretation of high level aerial photography. The following aerial photography was used:

^{1/} The classification system was published in 1979: Cowardin, Lewis M., Virginia Carter, Francis C. Golet, and Edward T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States, Fish and Wildlife Service, U.S. Department of the Interior, Washington, DC, December 1979

<u>Map</u>	<u>Scale</u>	<u>Film</u>	<u>Date</u>
Long Beach	1:80,000	black and white	*11/74
	1:130,000	color infrared	12/72
Los Angeles	1:80,000	black and white	6/76
Santa Barbara	1:80,000	black and white	5/86/76
	1:120,000	color infrared	12/74
	1:130,000	color infrared	3/77
Pt. Conception	1:80,000	black and white	5/76
	1:130,000	color infrared	3/77

Limited field checks were conducted during winter 1978, spring 1979, and winter and spring 1980.

The aerial photographs were viewed stereoscopically at 6X magnification. Delineations were enlarged to a scale of 1:24,000 using a zoom-transfer scope to fit the USGS 7-1/2' topographic map series. The 1:100,000 scale wetland maps were prepared from the 7-1/2' series. Since USGS 1:100,000 scale base maps are not yet available for the area, the NWI 1:100,000 scale base maps were prepared by enlarging and then quartering the 1:250,000 scale map series.

Large-scale NWI wetland maps (1:24,000 scale) are available for the USGS 7-1/2 topographic sheets indicated on index map B.

The Project Officer for production of the wetland maps was Dennis Peters, Regional Wetlands Coordinator, U.S. Fish and Wildlife Service, Region 1, Lloyd 500 Building, 500 NE Multnomah Street, Portland, Oregon 97232, telephone (503) 231-6154. Aerial photo interpretation was completed by Area Information Systems (AIS), Crestline, California. Maps were prepared by the NWI National Team in St. Petersburg, Florida.

4. 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.

5. WETLAND COMMUNITIES

Deepwater 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 present in the Marine, Estuarine, Riverine, and Lacustrine systems and are classified as open water.

Aquatic beds present within the Marine system are composed primarily of kelp (Macrocystis spp.). These are considered deepwater habitats.

Unvegetated wetlands, present in all the systems, include the classes beach/bar, flats, and/or streambeds. The class beach/bar is generally restricted to the open coast within the Marine system. Estuarine flats may be seasonally covered with algal mats (Enteromorpha spp., Rhizoclonium spp., and Ulva spp.) and the perimeter area may often be lined with emergent vegetation such as pickleweed (Salicornia virginica), glasswort (S. subterminalis), saltbush (Atriplex spp.), frankenia (Frankenia grandifolia), and saltgrass (Distichlis spicata). Estuarine streambeds are tidal sloughs that are dewatered at low tide and are often lined with emergent vegetation.

Emergent wetlands (persistent) are present in the Estuarine and Palustrine systems. These habitats are often referred to as salt marshes (Estuarine) and freshwater or brackish marshes (Palustrine). The dominant plant species of the Estuarine intertidal emergent wetlands include pickleweed, saltgrass, frankenia, cordgrass (Spartina foliosa), and jaumea (Jaumea spp.).

Palustrine emergent wetlands are dominated by bulrush (Scirpus spp.), cattail (Typha spp.), and dock (Rumex spp.). Associated species include rush (Juncus spp.), pondweed (Potamogeton spp.) and watercress (Nasturtium spp.).

Some Palustrine emergent wetlands are dominated by pickleweed. These areas are, for various reasons such as diking or spoil disposal, no longer subject to tidal action but support salt-tolerant wetland vegetation because of a nontidal water source.

The Riverine system includes the classes open water, flats, and streambeds. Open water and flats are restricted to the Riverine tidal, lower and upper perennial subsystems. While the flats are not covered by a perennial flow, they are associated with the reach of the river that contains permanent water and are included in the perennial subsystems. Intermittent streambeds are usually unvegetated although they may be lined with willow (Salix spp.), sycamore (Platanus racemosa), black cottonwood (Populus balsamifera), and various shrubs. Where this vegetation canopy obscured the streambed on the aerial photography, the units were mapped as Palustrine forested or scrub/shrub.

Natural or artificial basins or catchments larger than 20 acres are in the Lacustrine system. The Lacustrine system on the NWI maps includes the classes open water and flat. The open water areas are covered by water whereas the flats are exposed at some time during the year.

Palustrine forested and scrub/shrub wetlands are dominated by willow, black cottonwood and/or sycamore often with an understory of assorted herbaceous vegetation. These areas are found as "riparian" strips. The classification of forested or scrub/shrub wetlands is determined by height of the woody vegetation--forested greater than 6 m. and scrub/shrub less than 6 m.

Numerous farm ponds are included on the wetland maps. These are classified as Palustrine, open water or flat, depending on the presence or absence of water visible on the aerial photography.

Modifiers

The small-scale (1:100,000) NWI maps' legends do not include water regime nor special modifiers. Mapping codes for these modifiers are indicated in parentheses in the discussion that follows.

Hydrologic characteristics are an important aspect of wetlands. The water regime modifiers describe in general terms the duration and timing of surface inundation, as well as groundwater fluctuations. These modifiers are grouped under two major headings: tidal and nontidal.

Tidal

Subtidal (L). The substrate is permanently flooded with tidal water.

Irregularly Exposed (M). The land surface is exposed by tides less often than daily.

Regularly Flooded (N). Tidal water alternately floods and exposes the land surface at least once daily.

Irregularly Flooded (P). Tidal water floods the land surface less often than daily.

In Tidal Riverine, Lacustrine, and Palustrine areas, a nontidal modifier is used with a tidal suffix to describe the water regime more appropriately: Temporarily Flooded-Tidal (S), Seasonally Flooded-Tidal (R), Semi-Permanently Flooded-Tidal (T), or Permanently Flooded-Tidal (V).

Nontidal

For the purpose of mapping, nontidal water regime modifiers have been lumped into three broad categories. These are:

Intermittently flooded-temporarily flooded (W). The substrate is usually exposed, but surface water is present for variable periods without detectable seasonal periodicity, or surface water is present for brief periods during the growing season.

Saturated/Seasonally-flooded/Semipermanently flooded (Y). The substrate is saturated to the surface for extended periods during the growing season, or surface water is present for extended periods especially early in the growing season but is absent by the end of the season in most years, or surface water persists throughout the growing season in most years.

Intermittently exposed/Permanently flooded (Z). Surface water is present throughout the year except in years of extreme drought, or water covers the land surface throughout the year in all years.

An artificially flooded (K) water regime modifier can be applied with all water regime modifiers. In this case, flooding is under the direct and purposeful control of man.

Special modifiers included on these 1:100,000 scale NWI maps, where applicable, are:

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.

Farmed (f). The soil surface has been mechanically or physically altered for production of crops, but hydrophytes will become re-established if farming is discontinued.

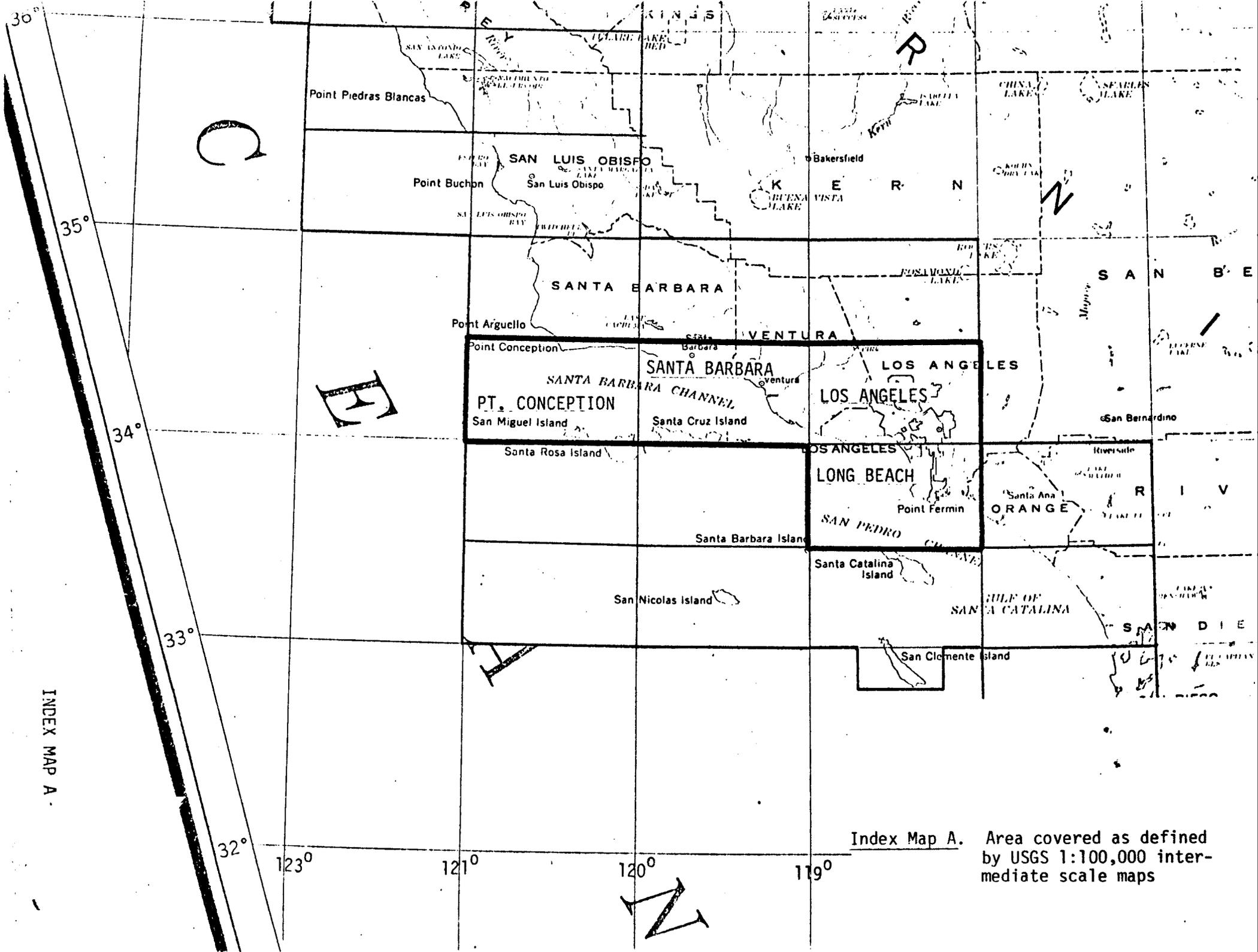
6. SOURCES OF ADDITIONAL INFORMATION

Since the purpose of the Notes to Users is to provide a general overview of a relatively large geographic area, in this case about 3,800 square miles, it is important to be aware of sources of additional information. While the following list of reports is not all-inclusive, it provides general and site-specific information for some areas of special concern.

- Bailey, Robert G. 1978. Description of the ecoregions of the United States. U.S. Forest Service, USDA, Ogden, Utah.
- 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.
- Dillingham Environmental Company. 1971. An environmental evaluation of the Bolsa Chica area. Signal Properties, Inc., Los Angeles, CA.
- Macdonald, Keith B. 1977. Coastal salt marsh. pp. 263-94. In: M. G. Barbour and J. Major (eds.). Terrestrial vegetation of California. John Wiley & Sons, Inc.
- Macdonald, Keith B. 1976. The natural resources of Mugu Lagoon. Calif. Dept. of Fish & Game, U.S. Fish & Wildlife Service, Coastal Wetland Series, #17.
- Macdonald, Keith B. 1976. The natural resources of Carpinteria Marsh. Calif. Dept. of Fish & Game/U.S. Fish & Wildlife Service, Coastal Wetland Series, #13.
- Mason, Herbert L. 1969. A flora of the marshes of California. Univ. of Calif. Press, Berkeley, CA.
- Romero, Paul D. _____. Anaheim Bay study July 1970 to June 1971. Calif. Dept. of Fish & Game.
- Speth, John, et al. 1970. "The natural resources of Goleta Slough and recommendations for use and development." Calif. Dept. of Fish & Game, Coastal Wetland Series, #2.
- Summa Corporation. 1979. "Supplemental information Playa Vista Master Plan." Present to Los Angeles County Board of Supervisors, June 15, 1979. Summa Corp., Las Vegas, NV.
- Summa Corporation. 1980. Summa Corporation's comparative analysis of possible wetlands on its Playa Vista property, Los Angeles, California. Summa Corp., Las Vegas, NV.
- U.S. Army Corps of Engineers. 1980. Ballona Creek wetland boundary study. Los Angeles District, Corps of Engineers. November 1980.
- U. S. Army Corps of Engineers. 1981. Ballona Creek vegetation study (draft). Los Angeles District, Corps of Engineers. March 6, 1981.
- U. S. Army Corps of Engineers. 1978. Preliminary guide to wetlands of the west coast. Technical Report Y-78-4, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

U.S. Department of the Interior. 1979. Concept plan for waterfowl wintering habitat preservation California coast. U.S. Fish and Wildlife Service, Portland, OR.

U.S. Fish and Wildlife Service. 1979. Special report, Bolsa Chica area. Ecological Services, Laguna Niguel, CA.



Index Map A. Area covered as defined by USGS 1:100,000 intermediate scale maps

