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USER REPORT
GILA RIVER DRAINAGE, SILVER CITY NW, CLIFTON SW
MESA SE, PHEONIX SE & SW, AJO NE & NW, EL CENTRO NE

NATIONAL WETLANDS INVENTORY MAPS

A. INTRODUCTION

The U.S. Fish & Wildlife Service's National Wetlands Inventory is producing maps showing the location and classification of wetlands and deepwater habitats of the United States. The Classification of Wetlands and Deepwater Habitats of the United States by Cowardin, et al. is the classification system used to define and classify wetlands. Photointerpretation conventions, hydric soils lists and wetland plant lists are also available to enhance the use and application of the classifications system.

B. PURPOSE

The purpose of the notes to users is threefold: (1) to provide localized information regarding the production of NWI maps, including specific imagery and interpretation discussion; (2) to provide a descriptive crosswalk from wetland codes on the map to common names and representative plant species; and (3) to explain local geography, climate, and wetland communities.

C. STUDY AREA

The Gila River flows west from New Mexico into Arizona near the town of Duncan. From this point west to North and South Butte the Gila River is in the Semiarid Steppe Division, Mexican Highlands Shrub Steppe Province. This province includes areas of high grassy plains and isolated hills and mountains. The plains may reach elevations from 4,000-7,000 feet above sea level. The local relief of the mountains may exceed 3,000 feet. Within the province there are four distinctive vegetation zones. The first is the desert zone which may include saguaro, paloverde, and creosote bush. The high plains consist of short grasses (grama) and some tall grasses are in evidence too. Mesquite, yucca, and cacti will grow in open stands in the submountain zone. There are some oaks and juniper which grow in this zone. The mountain zone is primarily pines on the upper parts of the higher mountains.

The remaining course of the Gila, from North and South Butte to Yuma, is through the Arid Division, American Desert Province. Within this province, extensive undulating plains with some hills and/or low mountains is the primary landscape. Local relief may range from 1000-3000 feet. The Gila and Chocolate Mountains are the western border for this relief. To the west of these ranges toward Yuma, elevation may vary from 100-300 feet. Vegetation is thin with bare ground between plants. Cacti and thorny shrubs

appear as do some thornless shrubs and herbs. The slopes of the mountain may be inhabited by paloverde, saguaro, and ocotillo. Most of the desert mountains can be devoid of vegetation.

Vegetation:

The variety of wetland species throughout the project area, although limited, is consistent. There are numerous vegetation changes evident as the river traverses several ecoregions. These changes, however, are more noticeable with upland species as opposed wetland species.

Cottonwood (Populus sp.) is the primary tree species with some willow (Salix sp.) that are over 20 feet tall. Shurb species are varied with willow, seep willow (Bacharis sp.) and arrowweed (Pluchea sericea). Emergent communities may contain cocklebur (Xanthium strumarium), Juncus sp., Carex sp., Typha sp., and Scirpus sp..

Two species found alongside most streams and rivers are salt cedar (Tamarix sp.) and mesquite (Prosopis sp.). Salt cedar is commonly located next to the stream, while the mesquite will be behind the salt cedar in an upland situation.

Climate:

The Mexican Highlands Shrub Steppe Province climate is semiarid with most of the precipitation falling from convectional summer storms. Twelve inches is the average annual precipitation. Temperature averages for the year may range from 55° F to 70° F. The winter months may have extreme cold weather.

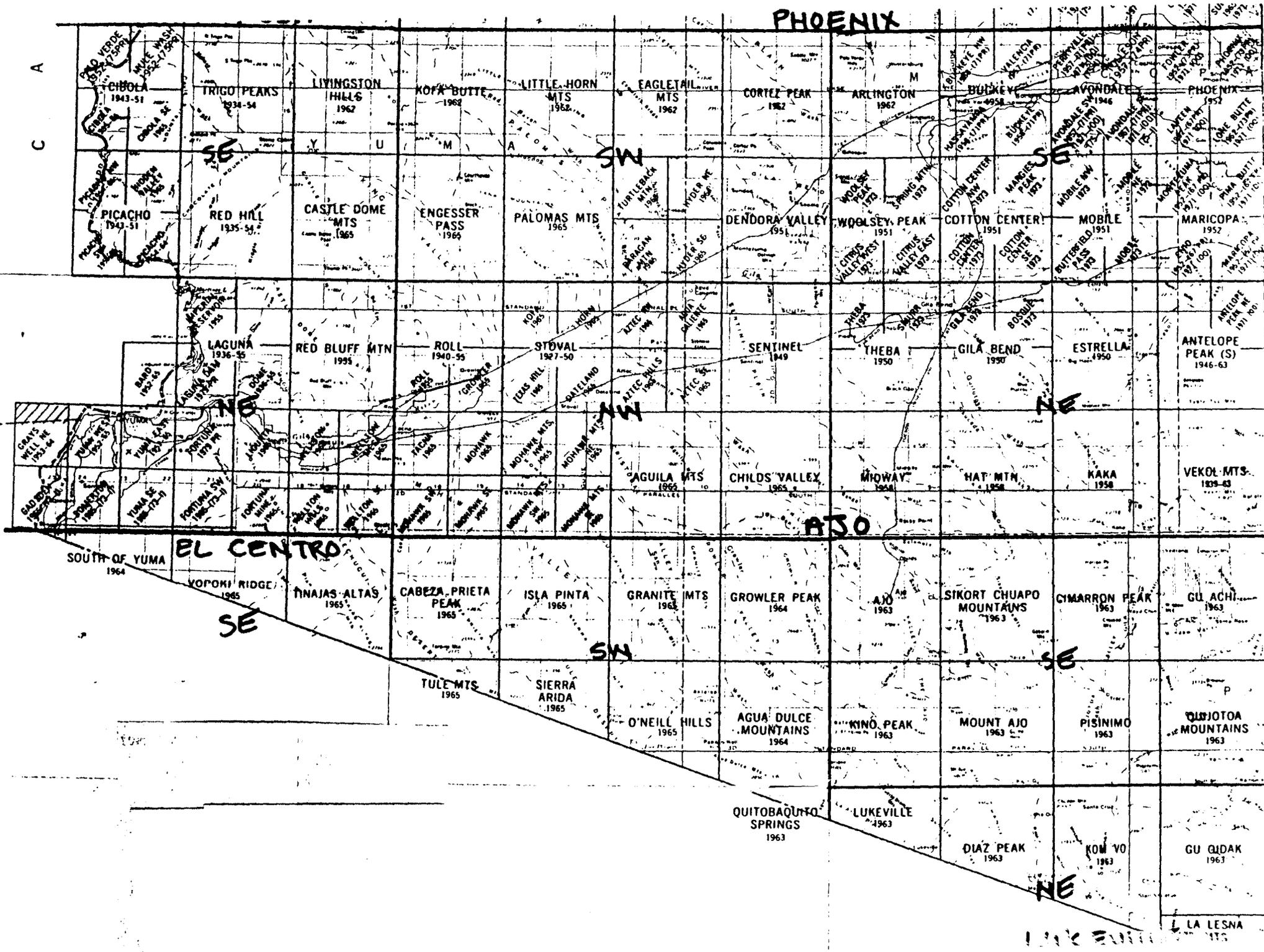
Finally, the American Desert Province, which is the driest of all the other provinces. Here the annual average temperature ranges between 60° F to 70° F. Winters are mild with an occasional chance of frost. Rain in the winter is widespread, although summer rains are from thunderstorms. It should be noted that rainfall is sporadic and does not occur regularly. Average precipitation may vary with two to ten inches per year, but can go upwards of 25 inches on the mountain slopes. Evaporation within the province is usually high during the summer months.

Soils:

The primary soil for the Mexican Highlands Shrub Steppe Province is aridisols. The American Desert Province will have gravel or bare rock on the surface near the base of some mountains. Entisols are located on old alluvial fans and terraces. Aridisols are predominate throughout the remaining areas of the province.

PHOENIX

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C



Water Regime Description

- (J) Intermittently Flooded--Substrate is usually exposed, but surface water present for variable periods without detectable seasonal periodicity. Weeks or months or even years may intervene between periods of inundation. The dominant plant communities under this regime may change as soil moisture conditions change. Some areas exhibiting this regime do not fall within our definition of wetland because they do not have hydric soils or support hydrophytes.
- (A) Temporarily Flooded--Surface water present for brief periods during growing season, but water table usually lies well below soil surface. Plants that grow both in uplands and wetlands are characteristic of this water regime.
- (B) Saturated--The substrate is saturated to surface for extended periods during the growing season, but surface water is seldom present.
- (C) Seasonally Flooded--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 extremely variable, extending from saturated to a water table well below the ground surface.
- (F) Semipermanently Flooded--Surface water persists throughout the growing season in most years. When surface water is absent, the water table is usually at or very near the land's surface.
- (G) Intermittently Exposed--Surface water is present throughout the year except in years of extreme drought.
- (H) Permanently Flooded--Water covers land surface throughout the year in all years.
- (K) Artificially Flooded--The amount and duration of flooding is controlled by means of pumps or siphons in combination with dikes or dams.
- (U) Unknown--The water regime is not known.

F. MAP PREPARATION

The wetland classification that appears on the National Wetlands Inventory (NWI) Base Map (Figure 1) is in accordance with Cowardin et al. (1977). The delineations were produced through stereoscopic interpretation of 1:58,000 scale color infrared photography. The photography was taken during May, June, July and September of 1980 to 1984.

Field checks of areas found within the project including the use of photography were made prior to the actual delineation of wetlands. Field check sites were selected to clarify varying signatures found on the photography. These photographic signatures were then identified in the field using vegetation types and soil types, as well as additional input from field personnel.

Collateral data included USGS topographic maps, SCS soil surveys, old NWI maps, and ecoregional information. 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. Since the photography was taken during a particular time and season, there may be discrepancies between the map and current field conditions. Changes in landscape which occurred after the photography was taken would result in such discrepancies.

Aerial photointerpretation and drafting were completed by Martel Laboratories, Inc., St. Petersburg, Florida.

G. SPECIAL MAPPING PROBLEMS

None.

H. MAP ACQUISITION

To discuss any questions concerning these maps or to place a map order, please contact:

Regional Wetland Coordinator (ARD-E)
U.S. Fish and Wildlife Service - Region II
P.O. Box 1306
Albuquerque, NM 87103

To order maps only, contact:

National Cartographic Information Center
U.S. Geological Survey
National Center
Reston, VA 22092

Maps are identified by the name of the corresponding USGS 1:24,000 scale topographic quadrangle name. Topographic map indices are available from the U.S. Geological Survey.

NWI CODE WATER REGIME	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION
L1UB (F,H)	Lacustrine limnetic unconsolidated bottom	Open water, lake	Unvegetated mud, sand, gravel
L2UB (F,H)	Lacustrine littoral unconsolidated shore	Shallow, open water lake, lake bottom	Unvegetated mud, sand, gravel
L2US (A,C)	Lacustrine littoral unconsolidated shore	Lake bed, lake shore	Unvegetated mud, sand, gravel
L1AB1 (F,H)	Lacustrine limnetic aquatic bed	Algal mat	Algae
L1AB3 (F,H)	Lacustrine limnetic rooted vascular	Pond weeds, water weeds	<u>Potamogeton</u> sp.
L2AB3 (F,H)	Lacustrine limnetic	Pond weeds, water weeds	<u>Potamogeton</u> sp.
L1AB4 (F,H)	Lacustrine limnetic floating aquatic bed	Pond weeds, water weeds	Duckweed (<u>Lemna</u> sp.)
L2AB4 (F,H)	Lacustrine littoral floating aquatic bed	Pond weeds, water weeds	Duckweed (<u>Lemna</u> sp.)
R2UB (H)	Riverine lower perennial unconsolidated bottom	Open water river, stream	Unvegetated mud, sand, gravel
R2US (A,J,C)	Riverine lower perennial unconsolidated bottom	River flat, bar	Unvegetated mud, sand, gravel
R4SB (J,A,C,F)	Riverine intermittent streambed	Intermittent stream	Unvegetated mud sand, gravel
PUB (F,H)	Palustrine unconsolidated bottom	Open water, pond bottom	Unvegetated mud sand, gravel
PUS (J,A,C)	Palustrine unconsolidated shore	Pond shore, pond bottom	Unvegetated mud sand, gravel
PAB1 (F,H)	Palustrine aquatic bed	Algal mat	Algae

NWI CODE WATER REGIME	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION
PAB3 (F,H)	Palustrine rooted vascular aquatic bed	Pond weeds, water weeds	<u>Potamogeton</u> sp.
PAB4 (F,H)	Palustrine floating aquatic bed	Pond weeds, water weeds	Duckweed (<u>Lemna</u> sp.)
PEM1 (J,A,C,F)	Palustrine persistent emergents	Marsh, wet meadow	Bulrush (<u>Scirpus</u> sp.) Cattail (<u>Typha latifolia</u>) Cocklebur (<u>Xanthium</u> sp.) Rush (<u>Juncus</u> sp.) Sedge (<u>Carex</u> sp.) Smartweed (<u>Polygonum</u> sp.)
PSS1 (J,A,B,C,F)	Palustrine scrub shrub, broad leaved deciduous	Shrub wetland	Arrowweed (<u>Pluchea sericea</u>) Seepwillow (<u>Baccharis glutinosa</u>) Mesquite (<u>Prosopis</u> sp.) Cottonwood (<u>Populus deltoides</u>) Willow (<u>Salix nigra</u>)
PSS2 (J,A,C)	Palustrine scrub-shrub, needle leaved deciduous	Shrub wetland	Salt Cedar (<u>Tamarix</u> sp.)
PFO1 (J,A,B, C,F)	Palustrine forested, broad-leaved deciduous	Forested wetland	Cottonwood (<u>Populus deltoides</u>) Willow (<u>Salix nigra</u>) Arizona sycamore (<u>Platanus wrightii</u>)