

## USER NOTES: GRAND CANYON - SE, NATIONAL WETLANDS INVENTORY MAP

### Map Preparation

The wetland classifications that appear on the Grand Canyon-SE National Wetlands Inventory (NWI) map are in accordance with The Classification of Wetlands and Deepwater Habitats of the United States, by Cowardin et al. (1977). The delineations were produced through stereoscopic interpretation of 1:120,000 scale black and white aerial photographs taken in May and November 1972 and November 1973. These delineations were then transferred to produce the 1:100,000 scale wetland maps.

Field checks of the delineated wetlands of the Grand Canyon-SE NWI map were conducted in June 1979 and November 1982, to determine the accuracy of the photointerpretation and to provide qualifying descriptions of mapped wetland designations.

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 Warren Hagenbuck, Regional Wetlands Coordinator, U.S. Fish and Wildlife Service, Region 2, P.O. Box 1306, Albuquerque, New Mexico, 87103.

### Geography

The area covered by the Grand Canyon-SE NWI map lies in the north central portion of Arizona, primarily within Coconino County in Arizona. Included within this area is the Colorado River and the famous Grand Canyon National Park.

Bailey's Ecoregion Classification identifies the area as predominantly Upper Gila Mts. Pine-Douglas Fir Forest Province with tablelands ranging from high to very high relief. Elevation ranges from 1,500 to 6,500 feet. Much of the area is used for domestic livestock grazing as well as recreation. Cropland use is very minor.

### Climate

In the lower elevations, the climate is arid and warm with annual precipitation ranging from 8 to 12 inches. In the higher elevation, precipitation may reach 40 inches with much of this falling as snow.

### Wetland Communities

There are a few perennial streams in the area, the most noteworthy one being the Colorado River. Ground water is generally deep and often of inferior quality.

This quadrangle is dominated by the Colorado River and a number of perennial drainages. Located along the Colorado River and its immediate perennial drainages are narrow linear bands of vegetation dominated by trees such as tamarisk, willow, and cottonwood. Other plants, such as Brickellia, Catclaw Acacia and Apache plume, are common.

Another interesting wetland feature associated with this quadrangle are the sinkhole wetlands in the northeast area. These areas are frequently wetted and have established such vegetation as bulrush and cattail.

Portions of the riverine wetlands are perennial (R2OW) as well as intermittent (R4SB). Adjacent to these riverine wetlands are palustrine wetlands, dominated by salt cedar (PSS), or cottonwood trees (PFO).

Located throughout the quadrangle, in isolated areas, are wetland areas that are presently dry (PFL), wet (POW), and support emergent types of vegetation (PEM).

To highlight, if, when the photograph was taken for this quadrangle, there were small depressions or catchments that were dry, they were categorized as PFL. If water was present, they were designated as POW. Larger unvegetated wetland areas, greater than 20 acres, would have been designated as lakes or L2FL. These Riverine Intermittent Stream Beds (R4SB) occur as drainages or arroyos of usually sandy substrate. They can be subjected to flash flooding, water availability usually of brief duration. Salt cedar and cottonwood may be associated with these wetland types and are designated as Palustrine Scrub Shrub (PSS) or Palustrine Forested (PFO).

NWI Code	Description	Common Name	Circular 39 Type	Characteristic Plant Species and Physiographic Features
L1OW	Lacustrine Limnetic open water	lake, pond, playa	5,11	Unvegetated, fine sediment bottom, open water
L2FL	Lacustrine Littoral Flat	flats, playas	1,9	Unvegetated, sand bottom, clay
PFL	Palustrine Flat	playa, stock tank, water catchments	1,9	Unvegetated, sand to clay bottom
POW	Palustrine Open Water	stock tank, playa, irrigation catchment	5,9	Unvegetated, sand to mud bottom
PEM	Palustrine Emergent	lake, pond, stock tank, playa	3,5 1,11	Bulrush, common cattail, commonly flooded
PSS	Palustrine Scrub-Shrub	bosque, forest	6,7	Salt cedar, along edges of playas, catchments, and waterways
PFO	Palustrine forest	bosque, forest	6,7	Cottonwoods, along edges of arroyos or waterways
R4SB	Riverine Intermittent Streambed	arroyo, dry streambed, gulch, gully	-	Unvegetated, sand, cobble- gravel bottom

BIBLIOGRAPHY

The purpose of this report is to provide general information about wetland classifications found within the area covered by the Base Map. There has been no attempt to describe all wetlands occurring in the area nor provide complete faunal and floral lists of those wetlands discussed. The references listed below refer to literature cited in the text of this report, as well as sources of additional information.

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