# USER NOTES: SHIPROCK-SW, NATIONAL WETLANDS INVENTORY MAP

## Map Preparation

The wetland classifications that appear on the Shiprock SW National Wetlands Inventory (NWI) map are in accordance with The Classification of Wetlands and Deep Water 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 1972 and July and October, 1973. These delineations were then transferred to produce the 1:100,000 scale wetland maps.

Field checks of the delineated wetlands of the Shiprock-SW NWI Base Map were conducted in August of 1979 and 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 Shiprock SW NWI Base Map lies in the northeast portion of Arizona and a small portion of northwestern New Mexico. The area is within Apache County in Arizona and San Juan County in New Mexico. Included within this area is Canyon De Chelly National Monument, as well as the Chuska Mountains and their associated high mountain lakes. Towns, such as Chinle, Many Farms, and Lukachukai, Arizona, are also located in this area.

Bailey's Ecoregion Classification (1969) identifies the area as predominantly Colorado Plateau Province, Grama-Galleta Steppe/Juniper-Pinyon Woodland Section (3142P). This area is also characterized as having tablelands of high relief. Much of the area within Shiprock SW is used for grazing by domestic livestock. A small portion, usually along the valleys of major streams, is used for irrigated crops. Dominant crops are alfalfa, small grains for hay and corn for silage. Scattered small tracts of land are used for dryland farming with Indian corn (maize) being the main crop. Overgrazing is a problem and can cause erosion in some areas.

## Climate

The climate is predominantly arid and cool. Annual precipitation ranges from about 6 inches in the grassland areas, to as much as 40 inches in the mountain areas (most being snow).

Wetland Communities

The western part of the quadrangle is predominantly Palustrine, either Palusrine flat (PFL), Palustrine Open Water (POW), or Palustrine Emergent (PEM). These types of wetlands, depending on the time of the photography, may have been dry (PFL) or wet (POW) or may have had emergent type of vegetation (PEM).

The central part of the quadrangle is predominantly washes and canyons with their associated wetland types. These intermittent waterways (R4SB) usually known as arroyos, gullies, or washes, commonly have vegetation that has adapted to this type of water regime. Commonly, the vegetation may be dominated by salt cedar (PSS) or cottonwood trees (PFO).

The eastern part of this quadrangle has unique wetland areas in the Chuska Mountains. These wetlands are high mountain ponds that have Palustrine Aquatic Beds (PAB), as well as Palustrine Emergents (PEM). These numerous small wetlands should be of great value to fish and wildlife.

To summarize, 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 nonvegetation wetland areas, greater than 20 acres have been designated as lakes or L1OW. 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<br>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.

Bailey, R. G. 1978. Description of the ecoregions of the United States. USDI For. Serv. Intermt. Reg., Ogden, UT. 77 p.

Cowardin, L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1977. Classification of wetlands and deepwater habitats of the United States. USDI. Fish and Wildl. Serv. Wash., DC. 100 p.

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