

USER NOTES: MARBLE CANYON - SE, NATIONAL WETLANDS INVENTORY MAP

Map Preparation

SE  
The wetland classifications that appear on the Marble 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 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 Marble Canyon SE NWI map were conducted in June 1979 and August of 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 Marble Canyon-SE NWI map lies in the northeast portion of Arizona, primarily within Navajo County. Included within this area is Black Mesa as well as the towns of Pinon, Hard Rocks and Tonalea.

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 Marble Canyon SE 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 serious erosion in some areas.

Climate

Precipitation ranges from 10 to 16 inches per year. Much of this precipitation falls in the form of snow during the winter months. The average annual temperature ranges from 50° to 55°F.

Wetland Communities

In the western part of this quadrangle, there are some unique wetlands. Located in Bejashibito Wash near Cow Springs Trading Post are a series of catchments where typical marshlands (PEM) have been created. Additionally, areas of salt cedar and Russian Olive trees (PSS) are present. Larger unvegetated wetland areas (L2FL) are also located in the western section of this quadrangle.

The remainder of the quadrangle is composed of arroyos or gullys (R4SB) and associated salt cedar (PSS). Located throughout the quadrangle are isolated water catchments that are either dry (PFL) or wet (POW).

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 watered areas, greater than 20 acres have been designated as lakes or L10W. 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.

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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Miller, Mack L. 1970. General Soil Map, Apache County, Arizona. USDA Soil Conservation Service. 10 p.

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