

USER NOTES: ST. JOHNS - NW, NATIONAL WETLANDS INVENTORY MAP

Map Preparation

The wetland classifications that appear on the St. Johns-NW National Wetlands Inventory (NWI) Base 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 August/November 1973. These delineations were then transferred to produce 1:100,000 scale wetland maps.

Field checks of the delineated wetlands of the St. Johns-NW NWI map were conducted in August of 1979 and 1982, to determine the accuracy of the aerial 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 St. Johns-NW NWI map lies in the east central portion of Arizona and a small portion of west central New Mexico. The area is primarily in Apache County in Arizona and Valencia County in New Mexico. Included within this area is a small portion of the Puerco River as well as part of the Little Colorado River. A portion of the Petrified Forest National Park is also in this quadrangle. Towns, such as Adams, St. John's and Witch Well, Arizona are also located here.

Bailey's Ecoregion Classification (1969) identifies the area as predominantly Colorado Plateau Province, Grama-Galleta Steppe/Juniper-Pinyon Woodland Section (3142P). This area is characterized as having some tablelands of high relief, but most of the area is plains. Much of the area within St. Johns-NW 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 hay and tame pasture grasses. Overgrazing is a problem and can cause soil erosion to occur.

Climate

The climate is predominantly arid and cool. Annual precipitation ranges from about 10 to 14 inches per year.

Wetland Communities

The western part of the quadrangle contains a portion of the Puerco River (R4SB) and its associated wetland types, commonly salt cedar (PSS) and cottonwood trees (PFO). Further south, the Little Colorado River (R4SB) and its adjacent wetland types (PSS, PFO, PEM) is located. The remaining area, the plains, has isolated water catchments that are either watered (POW) or dry (PFL).

The central part of the quadrangle has a portion of the Little Colorado River that is intermittent (R4SB) and becomes perennial (R2OW) south of Zion Reservoir (L2FL). The rest of the central part of the quadrangle has isolated catchments that are either dry (PFL) or wet (POW). The area north of the town of St. Johns has some valuable marsh wetlands (PEM) that support waterfowl.

The eastern part of the quadrangle has intermittent waterways (R4SB) such as Carrizo Wash and the Zuni River. These intermittent waterways also have associated Palustrine wetlands such as salt cedar (PSS) and cottonwood bosques (PFO). Located throughout the plains are isolated water catchments that are dry (PFL) or wet (POW).

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 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 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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