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USER NOTES: AZTEC - NW, NATIONAL WETLANDS INVENTORY MAP

Map Preparation

The wetland classifications that appear on the Aztec NW National Wetlands Inventory (NWI) maps are in accordance with Cowardin et al. (1977). The delineations were produced through stereoscopic interpretation of 1:80,000 scale black and white aerial photographs taken from 1974-1976. The delineations were enlarged using a zoom transferscope to overlays of 1:24,000 scale and 1:62,500 scale. These overlays were then transferred to 1:100,000 scale to produce the maps.

Aerial photographs were unavailable for eastern portion of the Aztec NW area 1:62,500-scale map, and for the entire area of Bancos Mesa NW, Bancos Mesa, Gomez Ranch, Espinosa Ranch, Four Mile Canyon, and Gobernador area 1:24,000-scale maps. These areas are therefore without wetland designations on the Aztec NW NWI maps.

Field checks of the delineated wetlands of the Aztec NW NWI maps were conducted in August 1981, to determine the accuracy of the aerial photo-interpretation 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 Aztec NW NWI maps is located in northeastern New Mexico and is part of San Juan and Rio Arriba Counties. Bailey's Ecoregion Classification (1978) identifies the northern edge of the Base Map as Rocky Mountain Forest Province, Ponderosa Pine-Douglas Fir Section (3113M) where elevations range from 7,500 to 8,155 feet. The remaining area on the Base Map is identified as Colorado Plateau Province, Grama-Galleta, and Pinyon-Juniper Woodland Mosaic Section (3132P).

The region is characterized by a high plateau composed of sandstone and limestone formations in an area known as the San Juan Basin. Deep channels have been carved into the plateau by stream erosion creating a network of mesas and canyons or arroyos that make up this portion of the San Juan River drainage. It is an area with may gas fields and coal deposits, but above ground, cattle ranching is the predominant enterprise.

Upland vegetation typically follows that described by Bailey (1978), however overgrazing has shifted the rangeland communities from a grass dominated understory vegetation to one dominated by shrubs such as big sagebrush (Artemisia tridentata) and rubber rabbitbrush (Chrysothamnus nauseosus).

The principal wetland feature is the San Juan River which drains the entire area and flows westward, where it is confluent with the Animas River. The Animas flows southwest, in the northwestern corner of the area covered by the Base Map, from its origin in Colorado.

Climate

The climate is semi-arid with hot days and cool nights in the summer. Precipitation falls as rain primarily during the cold winters but summer thunderstorms that are usually brief and localized also occur. Average annual precipitation is about 20 inches. Average annual temperatures are 40°F to 55°F (Bailey 1978). Snowfall is usually light and seldom remains on the ground for long periods of time.

Wetland Communities

The San Juan and Animas Rivers are classified as Riverine Upper Perennial Open Water. Their waters are clear and bottoms range from Cobble-Gravel to Boulders. The San Juan has excellent trout waters which provide an important sports fishery in the area. Portions of both rivers' floodplains are in cultivation and pasturage. Riparian growths of narrowleaf cottonwoods (Populus angustifolia), Russian olive (Elaeagnus angustifolia), and saltcedar (Tamarix chinensis) line the rivers' courses. These are labeled as Palustrine Forested or Scrub Shrub depending on the extent of the development of the vegetation community. In the extreme western portion of the San Juan River, a mosaic of wetland types occur along its course. Palustrine Emergent wetlands representing Type 3 wetlands - Inland Shallow Fresh Marshes (Shaw and Fredine 1971), are comprised of a number of species of bulrushes (Scirpus sp.) and cattails (Typha sp.) and sedges (Carex sp.). Flooded pastures which are Type 2 wetlands - Inland Fresh Meadows (Shaw and Fredine 1971), support stands of a variety of rush (Juncus sp.) horsetail (Equisetum sp.) and spikerush (Eleocharis sp.), species as well as foxtail grass (Sitanion hystrix) and sweet clover (Melilotus officianalis). In addition, willow (Salix sp.) shrubs occur in patches and are labeled as Palustrine Scrub Shrub.

Arroyos occur throughout the region. Bottoms are Sand and Gravel. Vegetation along smaller arroyos is composed of big sagebrush and rubber rabbitbrush. Larger arroyos such as Canyon Largo have growths of saltcedar along its course that are labeled as Palustrine Scrub-Shrub. All arroyos are classified as Riverine Intermittent Streambed with surface flows during the rainy periods.

Palustrine Open Water and Palustrine Flat designations are usually stock tanks. These have water of temporary duration depending on the size of the impoundment and the amount of water. These wetlands are typically unvegetated with bottoms of Mud to Sand or Gravel and represent Type 9 wetlands - Inland Saline Flats of Shaw and Fredine (1971).

Lake Dulce in the northeastern corner of the area provides recreational fishing and is found in the Rocky Mountain Forest Province. It is labeled as Lacustrine Limnetic Open Water and represents a Type 5 wetland - Inland Open Fresh Water (Shaw and Fredine 1971). Emergent growths of cattails (Typha latifolia) and hardstem bulrush (Scirpus acutus) form a marsh area which fringes the lake. The waters support an extensive Aquatic Bed of pondweed (Potamogeton sp.), watermilfoil (Myriophyllum sp.), water plantain (Alisma sp.) and smartweed (Polygonum sp.). Ephemeropteran (mayfly) larvae and gastropods (snails) are common. The marsh supports small populations of muskrats (Ondatra zibethicus), American coots (Fulica americana), mallards (Anas platyrhynchos), pied-billed grebes, (Podilymbus podiceps), yellow-headed (Xanthocephalus xanthocephalus) and redwinged blackbirds (Agelaius phoeniceus). Other ponds, marshes, and flooded pastures throughout the area at higher elevations support similar species of vegetation.

NWI Code	Description	Common Name	Circular 39 Type	Characteristic Plant Species and Physiographic Features
R4SB	Riverine Intermittent Streambed	arroyo, dry streambed gulch, gully	--	Unvegetated. Sand, Cobble-Gravel bottom
R30W	Riverine Upper Perennial Open Water	river	--	Filamentous algae. Cobble-Gravel to Boulder bottom
PFO/PSS	Palustrine Forested/ Palustrine Scrub Shrub	riparian, bosque	--	Cottonwoods (<u>Populus angustifolia</u>), Russian olive (<u>Elaeagnus angustifolia</u>), saltcedar (<u>Tamarix chinensis</u>), willow (<u>Salix sp.</u>)
PEM	Palustrine Emergent	oxbows, pastures	2	Bulrushes (<u>Scirpus sp.</u>), cattails (<u>Typha sp.</u>), sedges (<u>Carex sp.</u>), horsetails (<u>Equisetum sp.</u>), spikerushes (<u>Eleocharis sp.</u>), foxtail grass (<u>Sitanion hystrix</u>), sweet clover (<u>Melilotus officianalis</u>), willows
POW	Palustrine Open Water	stock tank	9	Unvegetated. Sand, Mud, Gravel bottom
		pond	5	Pondweed (<u>Potamogeton sp.</u>), parrot-feather (<u>Myriophyllum brasiliense</u>) water plantain (<u>Alisma sp.</u>), smartweed (<u>Polygonum sp.</u>)
L20W	Lacustrine Littoral Open Water	lake	5	Pondweed (<u>Potamogeton sp.</u>), parrot-feather (<u>Myriophyllum brasiliense</u>) water plantain (<u>Alisma sp.</u>), smartweed (<u>Polygonum sp.</u>)

BIBLIOGRAPHY

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