

DRAFT

USER REPORT: LLANO NE & SE

NATIONAL WETLANDS INVENTORY MAPS

A. The U.S. Fish and Wildlife Service's National Wetlands Inventory is producing maps showing the location and classification of wetlands and deepwater habitats of the United States. The Classification of Wetlands and Deepwater Habitats of the United States by Cowardin, et.al. is the classification system used to define and classify wetlands. Photointerpretation conventions, hydric soil lists and wetland plant lists are also available to enhance the use and application of the classification system.

B. PURPOSE

The purpose of the notes to users is threefold:

- 1) To provide localized information regarding the production of National Wetland Inventory (NWI) Maps.
- 2) To provide a descriptive crosswalk from wetland codes on the map to common names and representative plant species.
- 3) To explain local geography, climate and wetland communities.

C. STUDY AREA

Geography: The maps of Llano NW and SW are located in central Texas. Situated within the Prairie Brushland Province, Juniper-Oak-Mesquite Section. This province is a region of rolling plains, plateaus and dissected canyons. Usual relief ranges from 300 to 500 feet.

Major rivers in the study area are the Pedernales, Llano, Colorado and Blanco. Reservoirs are numerous and large in the Llano maps. They are subject to drawdowns during parts of the year.

Climate: The subtropical climate of the Llano NE & SE maps allow for dry, mild winters and hot, humid summers. Yearly average temperatures range from 64 degrees to 66 degrees Fahrenheit. The precipitation average in the far eastern portions of the study area is 32 inches, reducing to about 25 inches in the extreme western section.

Vegetation: The characteristic look of the Prairie Brushland Province is one of arid grasslands punctuated by low trees and shrubs growing singly or in clumps. As indicated by the name of the section, Juniper-Oak-Mesquite, the dominant tree types are oak, juniper and mesquite. In the river flood plains and even along smaller streams you will find elm, cottonwood, hackberry, sycamore and green ash. Occasionally, willows will be seen growing on the edge of the streams or in the backwaters of ponds and reservoirs.

Soil: All of the following soils occur in the streambed or on adjacent flood plains: Trinity clay, Wilson clay loam, Tinn clay, Frio clay and Roetex clay. These are deep clayey soils that are poorly drained. All of these soils with the exception of Frio clay meet the requirements and are listed on the list of Hydric Soils of the State of Texas 1985.

D. WETLAND CLASSIFICATION CODES AND WATER REGIME DESCRIPTIONS

TABLE - Cowardin Classification Codes and Descriptions

NWI CODE (Water Regime)	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION
L1UB (H)	Lacustrine limnetic unconsolidated bottom	Open water, lake	Unvegetated mud, sand, gravel
L2UB (F,H)	Lacustrine littoral unconsolidated bottom	Shallow open water lake, lake bottom	Unvegetated mud, sand, gravel
L2US (A,C)	Lacustrine littoral unconsolidated shore	Lake bed, lake shore	Unvegetated mud, sand, gravel
L1AB1 (F,H)	Lacustrine limnetic aquatic bed	Algal mat	Algae
L1AB3 (F,H)	Lacustrine limnetic aquatic bed	Rooted vascular	American lotus (<u>Nelumbo lutea</u>)
L1AB4 (F,H)	Lacustrine limnetic aquatic bed	Floating Pond weeds, water weeds	Duckweed (<u>Lemna</u> sp.) (<u>Azola</u> sp.)
L2AB4 (F,H)	Lacustrine littoral aquatic bed	Floating Pond weeds, water weeds	Duckweed (<u>Lemna</u> sp.) (<u>Azola</u> sp.)
R2UB (H)	Riverine lower perennial unconsolidated bottom	Open water river, stream	Unvegetated mud, sand, gravel
R2RS (A,C)	Riverine lower perennial Rocky shore	Open water Areas of rapids	Unvegetated bedrock, rubble
R2RB (H)	Riverine lower perennial Rock bottom	Open water Areas of rapids	Unvegetated bedrock, rubble

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R2US (A,C)	Riverine lower perennial unconsolidated shore	River flat, bar	Unvegetated mud, sand, gravel
R4SB (J,A,C)	Riverine intermittent streambed	Intermittent stream	Unvegetated mud, sand, gravel
PUB (F,H)	Palustrine unconsolidated bottom	Open water, pond bottom	Unvegetated mud, sand, gravel
PUS (J,A,C)	Palustrine unconsolidated shore	Pond shore, pond bed	Unvegetated mud, sand, gravel
PAB1 (F,H)	Palustrine aquatic bed	Algal mat	Algae
PAB3 (F,H)	Palustrine aquatic bed	Rooted vascular	American lotus (<u>Nelumbo lutea</u>)
PAB4 (F,H)	Palustrine aquatic bed	Floating Pond weeds, water weeds	Duckweed (<u>Lemna</u> sp.) (<u>Azola</u> sp.)
PEM1 (J,A,C,F)	Palustrine persistent emergents	Marsh, wet meadow	Bulrush (<u>Scirpus</u> sp.) Cattail (<u>Typha latifolia</u>) Cocklebur (<u>Xanthium</u> sp.) Rush (<u>Juncus</u> sp.) Saltgrass (<u>Distichlis</u> sp.) Sedge (<u>Carex</u> sp.) Smartweed (<u>Polygonum</u> sp.)

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NWI CODE (Water Regime)	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION
PSS1 (A,C,F)	Palustrine, scrub shrub, broad leaved deciduous	Shrub wetland	Buttonbush (<u>Cephalanthus</u> <u>occidentalis</u>) Cottonwood (<u>Populus</u> <u>deltoides</u>) Willow (<u>Salix nigra</u>)
PSS2 (J,A,C)	Palustrine scrub shrub, needle leaved deciduous	Shrub wetland	Salt cedar (<u>Tamarix</u> sp.)
PF01	Palustrine forested broad leaved deciduous	Forested wetland	Cottonwood (<u>Populus</u> <u>deltoides</u>) Elm (<u>Ulmus</u> sp.) Green ash (<u>Fraxinus</u> <u>pennsylvanica</u>) Hackberry (<u>Celtis</u> <u>occidentalis</u>) Willow (<u>Salix nigra</u>) Pecan (<u>Carya</u> <u>illinoensis</u>) Sycamore (<u>Platanus</u> <u>occidentalis</u>)

F. MAP PREPARATION

The wetland classifications that appear on the Llano NE and SE NWI Base Map (Figure 1) is in accordance with Cowardin et. al. (1977). The delineations were produced through stereoscopic interpretation of 1:58,000 scale color infrared photography. The photography was taken during January, February and March, 1981.

Field checks of areas found within Llano NE and SE photography were made prior to the actual delineation of wetlands. Field check sites were selected to clarify varying signatures found on the photography. These photographic signatures were then identified in the field using vegetation types and soil types, as well as additional input from field personnel.

Collateral data included USGS topographic quadrangles, SCS county soil surveys, climate, vegetation and ecoregional information.

The user of the map is cautioned that, due to the limitations of mapping primarily through aerial photo interpretation, a small percentage of wetlands may have gone unidentified. Since the photography was taken at a particular time and season, there may be discrepancies between the map and current field conditions. Changes in landscape which occurred after the photography was taken would result in such discrepancies.

Aerial photo interpretation and drafting were completed by Martel Laboratories, Inc., St. Petersburg, Florida.

G. SPECIAL MAPPING PROBLEMS

Many of the rivers in this area are flowing over exposed bedrock. The actual course of the river is very complex in its total make-up. In a short stretch of river you may have intermingled a combination of small sandbars, rapids, highly braided channels and areas of seasonally flooded emergents and/or scrub-shrub wetlands. To reduce the complexity of the actual delineation it was decided in the field checksite portion of the project to combine all these elements into a single unit and classify the resultant polygon as riverine, lower perennial, rock bottom, permanently flooded (R2RBH). The only exceptions to this will be large adjacent unconsolidated shore areas and areas that are vegetated. These will be delineated separately.

H. MAP ACQUISITION

To discuss any questions concerning these maps or to place a map order, please contact:

Regional Wetland Coordinator (ARD-E)
U.S. Fish & Wildlife Service - Region II
P.O. Box 1306
Alberquerque, New Mexico 87103

To order maps only, contact:

National Cartographic Information Center
U.S. Geological Survey
National Center
Reston, VA 22092

Maps are identified by the name of the corresponding USGS 1:24,000 scale topographic quadrangle name. Topographic map indices are available from the U.S. Geological Survey.

WATER REGIME MODIFIERS
(non-tidal)

(A) Temporarily Flooded--Surface water present for brief periods during growing season, but water table usually lies well below soil surface. Plants that grow both in uplands and wetlands are characteristic of this water regime.

(B) Saturated--The substrate is saturated to surface for extended periods during the growing season, but surface water is seldom present.

(C) Seasonally Flooded--Surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is very variable, extending from saturated to a water table well below the ground surface.

(F) Semipermanently Flooded--Surface water persists throughout the growing season in most years. When surface water is absent, the water table is usually at or very near the land's surface.

(G) Intermittently Exposed--Surface water is present throughout the year except in years of extreme drought.

(H) Permanently Flooded--Water covers land surface throughout the year in all years.

(K) Artificially Flooded--The amount and duration of flooding is controlled by means of pumps or siphons in combination with dikes or dams.

(U) Unknown--The water regime is not known.

LITERATURE CITED

- Bailey, Robert G., 1980. Description of the Ecoregions of the United States. U.S. Department of Agriculture Forest Service, Miscellaneous Publications No. 1391.
- Cowardin, L.M.; V. Carter; F.C. Golet and E.T. LaRoe, 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of the Interior, U.S. Fish and Wildlife Service. Biological Services Program, Washington, D.C., 103P.
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TEXAS

