

MAP NARRATIVE FOR THE LAWTON 1:250,000
COVERING THE 1:100,000 MAPS
LAWTON NW, SW

Map Preparation

The wetland classifications that appear on these National Wetland Inventory (NWI) maps are in accordance with Cowardin, et al. Classification of Wetlands and Deepwater Habitats of the United States (1980). The delineations were produced by stereoscopic interpretation of 1:58,000 scale, color infrared aerial photographs taken during November 1983. Initial ground truthing of the photography occurred during 3/31-4/10/86.

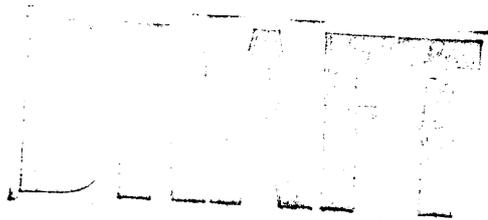
The user of these maps is cautioned that, due to the limitations of mapping primarily through aerial photointerpretation, a small percentage of wetlands may be unidentified. Changes in landscape, or habitat, could have occurred since the time of photography, therefore, some discrepancies between the maps and current field conditions may exist. Any questions regarding omissions, inclusions, or errors should be brought to the attention of the Regional Wetlands Coordinator, U.S. Fish & Wildlife Service, Region 2, 500 Gold Street S.W., P.O. Box 1306, Albuquerque, N.M. 87103.

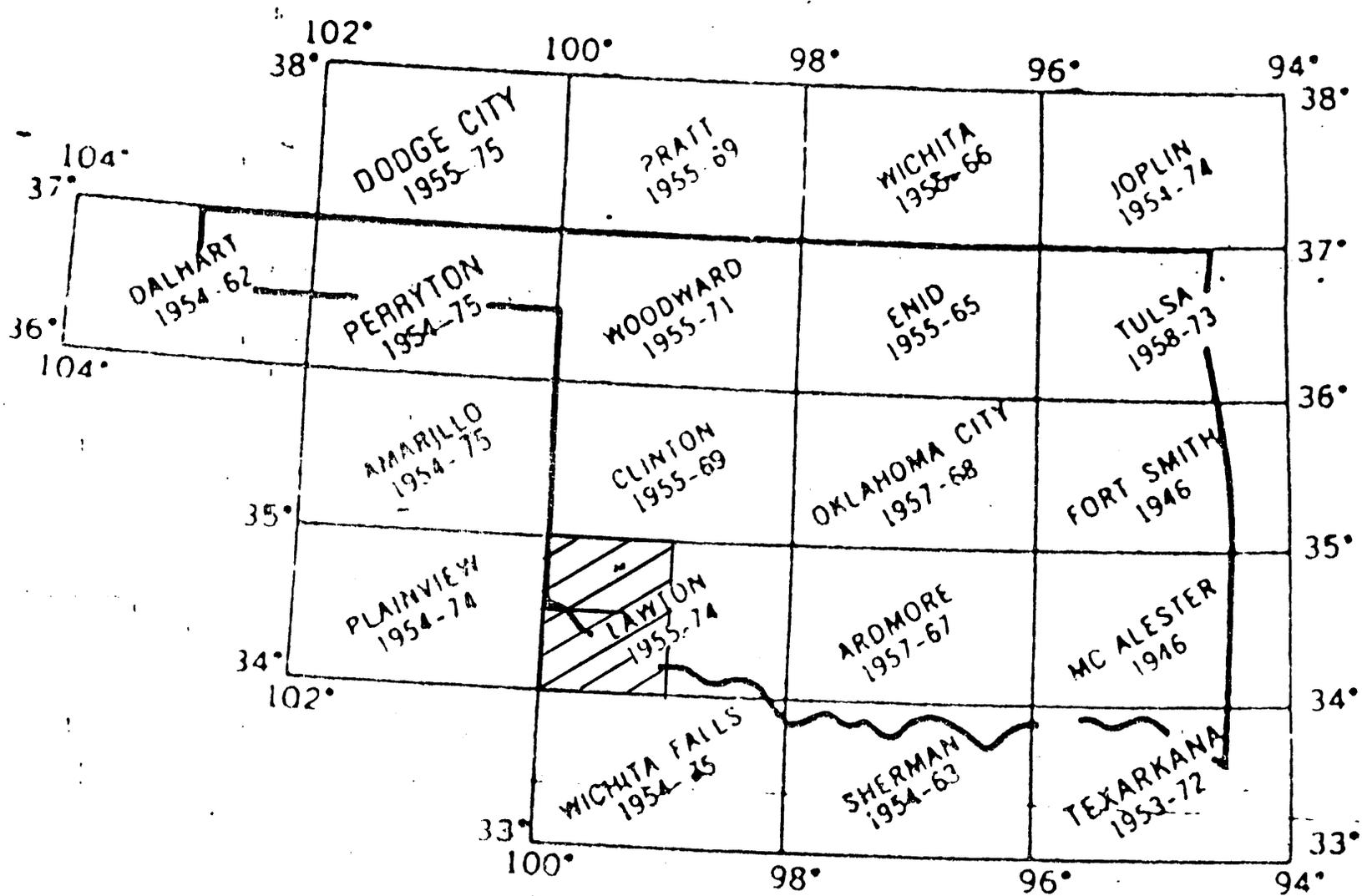
Geography

The maps, Lawton NW and SW, are located in southwestern Oklahoma and northern Texas. Lawton SW is dissected along its northern extent by the Oklahoma/Texas border (Red River). The map area is bounded by longitudes 100°00'W and 89°00'W and latitudes 35°00'N and 34°30'N for Lawton NW and latitudes 34°30'N and 34°00'N for Lawton SW.

According to Bailey, Description of the Ecoregions of the United States (1980), the study area lies within two provinces, the Tall Grass Prairie Province and the Prairie Brushland Province.

Lawton NW is located entirely within the Tall Grass Prairie Province, Bluestem-Grama Prairie Section. The topography is characterized by flat and rolling plains, with the elevation gradually increasing westward toward the high plains. Local relief varies from 100-300 feet. Unique topographic features within this map are Quartz Mountain, Navajo Mountains and Tepee Mountain, the latter of which exhibits 800 feet relief. These "dome-like" features contrast sharply with the surrounding plains.





Lawton SW is located almost entirely within the Tall Grass Prairie Province, Bluestem-Grama Prairie Section. The topography is characterized by flat to rolling plains, with gentle relief locally less than 200 feet. The Prairie Brushland Province, Mesquite-Buffalo Grass Section extends into the southwestern and southeastern corners of this map. Characteristic of this area are gently rolling plains with relief varying 100-300 feet in the southwest portion and less than 200 feet in the southeast portion of the map. Generally speaking, the Red River denotes the northern boundary of this province.

The Elm Fork Red River flows eastward along the northern portion of Lawton NW, emptying into the North Fork Red River, below Lake Altus. The North Fork Red River empties into Lake Altus in the northern portion of the map and flows southward through both maps. The Salt Fork Red River flows west to east through the center of Lawton NW and then north to south through both maps. Major tributaries include Deer Creek, Haystack Creek, Elk Creek, Buck Creek, Sandy Creek, Turkey Creek and Otter Creek.

The Red River flows generally west to east across Lawton SW, in a broad, meandering streambed. The Pease River, flowing west to east, joins the Red River in the southeast corner of Lawton SW. Major tributaries include North Groesbeck Creek, South Groesbeck Creek, Wanderers Creek and Paradise Creek.

There are numerous small ponds and impoundments throughout the map area which are temporarily to permanently flooded. Lake Altus, Tom Steed Reservoir and Lake Pauline are the largest reservoirs.

Cimate

The Lawton maps are influenced by a temperate, humid continental climate. The seasons are distinct, with cold, dry winters and hot summers. Most of the rainfall occurs during the Spring and Fall. Average annual temperatures range from 59° to 62°F. The average annual precipitation increases from the western portion of the maps eastward, ranging from 22"/year to 27"/year.

Wetland Communities

The Palustrine system for these maps is the predominant classification of wetlands. The Palustrine forested areas are primarily riparian habitat, but may include other locations such as the backwaters of reservoirs and ponds. The riparian locations may contain species of cottonwood (Populus deltoides), black willow (Salix nigra), green ash (Fraxinus pennsylvanica), hackberry (Celtis occidentalis), elm (Ulmus spp.) and box elder (Acer negundo). These trees, with the exception of cottonwood and willow, usually occur in a temporarily flooded situation. The major seasonally flooded species are black willow and, to a lesser extent, cottonwood. The seasonally-flooded forest wetlands occur primarily along the backwaters of reservoirs and ponds.

Shrub wetlands may occur in temporarily, seasonally and semi-permanently flooded conditions. Commonly associated with temporary and seasonally flooded habitats are cottonwood, willow and, to a lesser extent, groundsel (Baccharis spp.). Buttonbush (Cephalanthus occidentalis) is the primary shrub found in semi-permanent conditions, with willow occurring occasionally. Salt cedar (Tamarix sp.) is the only needle-leaf deciduous shrub occurring in the map area. Primarily associated with rivers, streams and, to a lesser extent, reservoirs, salt cedar most commonly occurs in a temporarily flooded condition. Yet, it may also be found in seasonally and intermittently flooded situations.

Emergent wetlands may occur in temporary, seasonally, semi-permanent, and occasionally, intermittently flooded conditions. These wetlands include a variety of species such as Juncus spp. and smartweed (Polygonum spp.) in temporary areas, Carex spp. and Juncus spp. in seasonal areas, and common cattail (Typha latifolia) predominantly in semipermanently flooded habitat.

Aquatic beds comprised of duckweed (Lemna spp.), American lotus (Nelumbo lutea) and water primrose (Ludwigia spp.) occur in reservoirs and ponds either in semipermanent or permanently flooded conditions.

Natural or artificial open water bodies of twenty (20) acres or more are classified as Lacustrine. The Lacustrine system includes the classes of unconsolidated bottom, unconsolidated shore and aquatic bed. Nonvegetated Lacustrine substrates which are exposed at sometime during the year are classified as unconsolidated shore or unconsolidated bottom. The Lacustrine system is present in the study area as natural, impounded, or excavated water bodies. Lacustrine aquatic beds are classified similar to those in the Palustrine system.

The Riverine system includes the classes: Unconsolidated bottom, unconsolidated shore and streambed. Unconsolidated bottom and shore are restricted to the Riverine lower perennial subsystem. Streams which do not flow throughout the year are classified as Riverine intermittent streambed. In some cases, perennial streams on the topographic quadrangle are called Riverine streambed seasonally or semipermanently flooded. This is done where streambeds are actually dry during some part of the growing season or flow during most of the year but dry up before the end of the year. Some streams may be excavated to improve drainage or routing.

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 flora and fauna lists of those wetlands discussed.

NWI CODE	NWI DESCRIPTION	COMMON DESCRIPTION	VEGETATION/SUBSTRATE
L1UB	Lacustrine limnetic unconsolidated bottom	Open water, lake	Unvegetated mud, sand, gravel
L2UB	Lacustrine littoral unconsolidated bottom	Shallow open water lake, lake bottom	Unvegetated mud, sand, gravel
L2US	Lacustrine littoral unconsolidated shore	Lake shore	Unvegetated mud, sand, grave
L1AB4	Lacustrine limnetic aquatic bed floating vascular	Pond weeds, water weeds	Duckweeds (<u>Lemna</u> spp.)
L2AB4	Lacustrine littoral aquatic bed floating vascular	Pond weeds, water weeds	Duckweeds (<u>Lemna</u> spp.)
L2AB3	Lacustrine littoral aquatic bed rooted vascular	Pond weeds, water weeds	American Lotus (<u>Nelumbo lutea</u>) Water Primrose (<u>Ludwigia</u> spp.)
R2UB	Riverine lower perennial unconsolidated bottom	Open water, river,	Unvegetated mud, sand, gravel
R2US	Riverine lower perennial unconsolidated shore	River flat or bar	Unvegetated mud, sand, gravel
R4SB	Riverine intermittent streambed	Intermittent stream or creek	Unvegetated mud, sand, gravel
PUB	Palustrine unconsolidated bottom	Open water, pond bottom	Unvegetated mud, sand, gravel

NWI CODE	NWI DESCRIPTION	COMMON DESCRIPTION	VEGETATION/SUBSTRATE
PUS	Palustrine unconsolidated shore	Pond shore	Unvegetated mud, sand, gravel
PAB1	Palustrine aquatic bed algal	Algal bed	Algae
PAB3	Palustrine aquatic bed, rooted vascular	Pond weeds, water weeds	American Lotus (<u>Nelumbo lutea</u>) Water Primrose (<u>Ludwigia</u> spp.)
PAB4	Palustrine aquatic bed, floating vascular	Pond weeds, water weeds	Duckweeds (<u>Lemna</u> spp.)
PEM1	Palustrine persistent emergent	Marsh or wet meadow	Bulrush (<u>Scirpus</u> spp.) Common Cattail (<u>Typha latifolia</u>) Cocklebur (<u>Xanthium strumarium</u>) Cyperus (<u>Cyperus</u> spp.) Rush (<u>Juncus</u> spp.) Sedge (<u>Carex</u> spp.) Smartweed (<u>Polygonum</u> spp.) Saltgrass (<u>Distichlis</u> spp.) Aster (<u>Aster</u> spp.) Dock (<u>Rumex</u> spp.) Spikerush (<u>Eleocharis</u> spp.) Switchgrass (<u>Panicum</u> spp.)
PSS1	Palustrine broad leaved deciduous scrub/shrub	Shrub wetland	Cottonwood (<u>Populus deltoides</u>) Buttonbush (<u>Cephalanthus occidentalis</u>) Groundsel (<u>Baccharis</u> sp.) Willow (<u>Salix nigra</u>)

NWI CODE	NWI DESCRIPTION	COMMON DESCRIPTION	VEGETATION/SUBSTRATE
PSS2	Palustrine needle-leaved deciduous scrub/shrub	Shrub wetland	Salt Cedar (<u>Tamarix</u> spp.)
PFO1	Palustrine broad-leaved deciduous forest	Forest wetland	Cottonwood (<u>Populus deltoides</u>) Green ash (<u>Fraxinus penn- sylvanica</u>) Hackberry (<u>Celtis occidentalis</u>) Elm (<u>Ulmus</u> spp.) Water elm (<u>Planera aquatica</u>) Willow (<u>Salix nigra</u>) Sycamore (<u>Platanus occidentalis</u>) River birch (<u>Betula nigra</u>) Oak (<u>Quercus</u> spp.) Pecan (<u>Carya illinoensis</u>) Box elder (<u>Acer negundo</u>)