MAP NARRATIVE FOR THE ENID 1:250,000
COVERING THE 1:100,000 MAPS
ENID NE, SE, SW

Map Preparation

The wetland classifications that appear on these National Wetlands 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 9/80, 9/81, 10/81 and 11/81. Initial ground truthing of the photography occurred during 11/1-11/12/85.

The user of these maps is cautioned that, due to the limitations of mapping primarily through aerial photo-interpretation, 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 Warren Hagenbuck, Regional Wetlands Coordinator; U.S. Fish & Wildlife Service, Region 2,500 Gold Street S.W., P.O. Box 1306, Albuquerque, N.M. 87103.

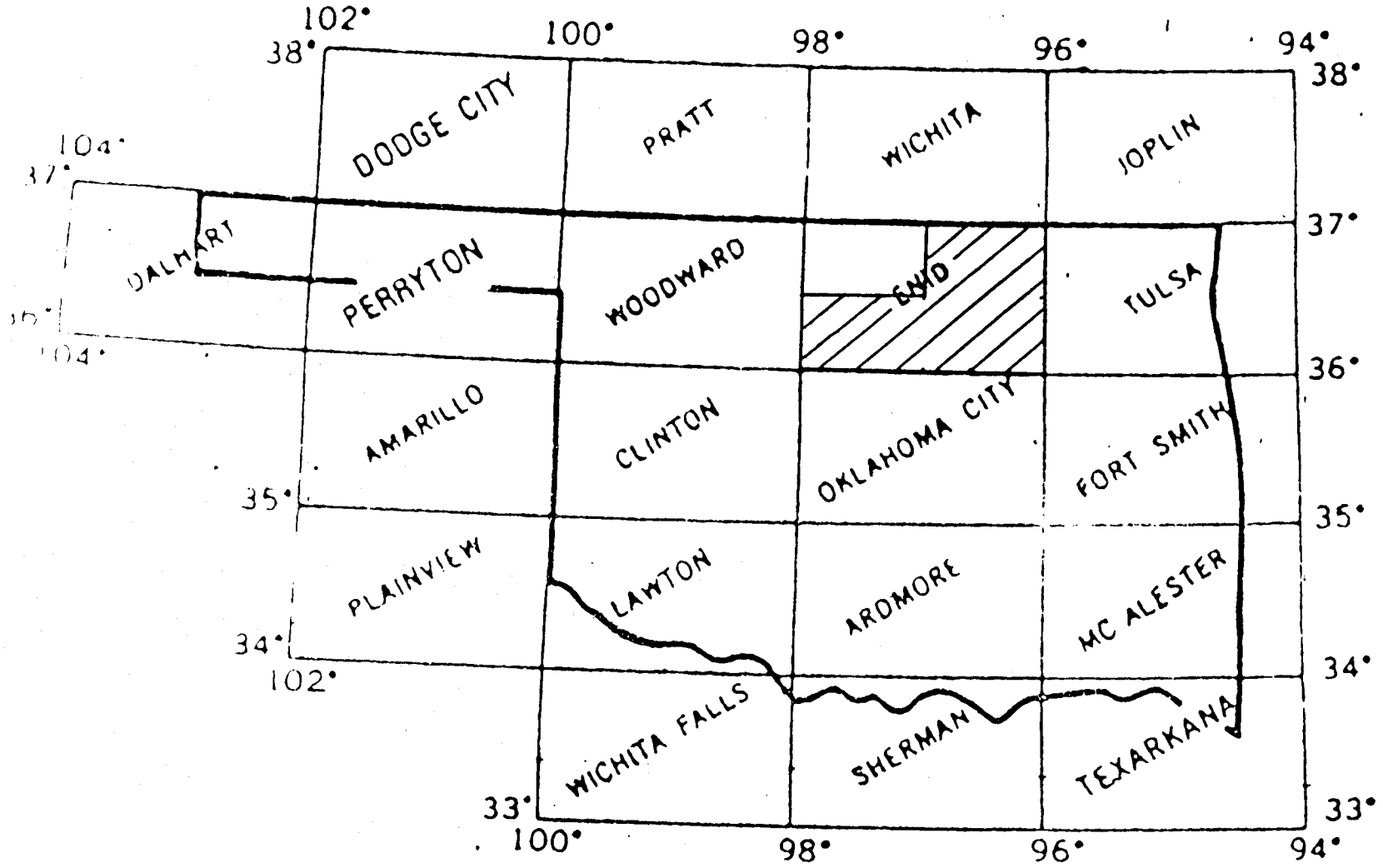
Geography

The maps, Enid NE, SE, and SW are located in north central Oklahoma. The mapping area is bounded by 96°00'W longitude on the east, 36°00'N latitude on the south, 97°00'W longitude on the west for Enid NE, 98°00'W longitude on the west for Enid SW and 36°30'N latitude on the north for Enid SW and 37°00'N latitude on the north for Enid NE. (See illustration)

According to Bailey, Description of the Ecoregions of the United States (1980), the study area is bisected by the boundary line of two provinces. The Tall Grass Prairie and Prairie-Parkland Provinces. This line lies in a southwest to northeast orientation, affecting all three maps.

The Tall/Grass Prairie Province dominates the map of Enid SW. The Bluestem-Grama Prairie Section of smooth plains, with 80% of the area having gentle slopes, has relief of 100 to 300 feet. The southeast portion of this map is in the Prairie-Parkland Province and Oak-Bluestem Parkland Section, consisting of irregular plains with local relief 100-300 feet high with 50%-80% gently sloping terrain.

1:250,000 MAPS
OF
OKALHOMA



The map of Enid SE is primarily in the Oak-Bluestem Parkland Section. The eastern side of this map is in the Oak-Hickory-Bluestem Parkland Section which is characterized by open hills with local relief varying from 300-500 feet. This region will contain an area of 20%-50% gentle slope. The northwest corner is within the Tall-Grass Prairie Province and Bluestem Prairie Section. With local relief of 100-300 feet and 50%-80% of the area having gentle slopes, this section of irregular plains completes the Enid SE map.

The western half of the Enid NE map is in the Tall Grass Prairie Province and Bluestem Prairie Section. The eastern half of the map is divided by the Oak-Bluestem Parkland Section and the Oak-Hickory-Bluestem Parkland Section. The descriptions are the same as found in preceding paragraphs with only one addition. There is an area of Oak-Bluestem Parkland with open hills having local relief from 300-500 feet, and 20%-50% of the section with gently sloping land.

The Arkansas River flows in a northwest to southeast direction through the maps of Enid NE and SE and eventually flows into Keystone Reservoir. The Cimarron River, flowing in an easterly direction, also flows into Keystone Reservoir. Major streams situated throughout the maps are: Black Bear Creek, Skeleton Creek, Salt Creek, Hominy Creek and Bird Creek.

There are numerous small ponds and impoundments throughout the mapping area which are temporarily to permanently flooded. Keystone Reservoir and Kaw Reservoir are the largest reservoirs and are both fed by the Arkansas River. Other, yet smaller, reservoirs include Lake Carl Blackwell, Hulah Lake, and Bluestem Lake.

Climate

The Enid maps have a continental humid temperate climate. The seasons are distinct, with cold, dry winters and hot summers. Average annual temperatures range from 59°-61°F for all three maps. However, precipitation averages increase from west (29"/year) to east (38"/year) with greater occurrence from April to October.

Wetland Communities

The Palustrine system for these three maps is the predominate classification of wetlands. The Palustrine forested areas are primarily riparian and include other locations such as backwater 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*) and elm (*Ulmus* sp.) These trees (except cottonwood and willow) are usually found in temporarily flooded situations. The major seasonally flooded species is black willow and to a lesser extent, river birch (*Betula nigra*) and cottonwood. Backwaters of reservoirs and ponds are where most of these seasonal forested types of wetlands occur.

Shrub wetlands consist of sapling or shrub species such as cottonwood, willow and grounsel (Baccharis sp.) for temporary and seasonal wetlands. Buttonbush (Cephalanthus occidentalis) is the primary semi- permanently flooded shrub with willows occasionally occurring in such a wetland. Salt cedar (Tamarix sp.) is the only needle leaf deciduous shrub in the mapping area. Commonly found in temporary situations it is also located in seasonally flooded areas that are associated with rivers, streams, and large reservoirs.

Emergent wetlands include a variety of species such as Juncus sp., and smartweed (Polygonum sp.) in temporary areas, Carex sp., Juncus sp. in seasonal areas, and Typha latifolia predominantly in semipermanently flooded locations.

Aquatic beds such as duckweed, (Lemna sp.), American Lotus (Nelumbo lutea) and Ludwigia sp. are found in reservoirs and ponds in semipermanent to permanent water 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 a natural, impounded, or excavated water body. 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 limnetic unconsolidated shore	Lake shore	Unvegetated mud, sand, gravel
L1AB4	Lacustrine limnetic aquatic bed floating vascular	Pond weeds, water weeds	Duckweed (Lemna sp.)
L2AB4	Lacustrine littoral aquatic bed floating vascular	Pond weeds, water weeds	Duckweed (Lemna sp.)
L2AB3	Lacustrine littoral aquatic bed rooted vascular	Pond weeds, water weeds	American Lotus (Nelumbo lutea) (Ludwigia sp.)
R2UB	Riverine lower perennial unconsolidated bottom	Open water, river, stream	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
PAB3	Palustrine aquatic bed, rooted vascular	Pond weeds, water weeds	American Lotus (Nelumbo lutea) (Ludwigia sp.)
PAB4	Palustrine aquatic bed, floating vascular	Pond weeds, water weeds	Duckweed (Lemna sp.)
PEM1	Palustrine persistant emergent	Marsh or wet meadow	Bulrush (Scirpus sp.) Cattail (Typha latifolia) Cocklebur (Xanthium sp.) Cyperus (Cyperus sp.) Rush (Juncus sp.) Sedge (Carex sp.) Smartweed (Polygonum sp.) Saltgrass (Distichlis sp.) Aster (Aster sp.) Dock (Rumex sp.) Spikerush (Eleocharis sp.)
PSS1	Palustrine broad leaved deciduous scrub/shrub	Shrub wetland	Cottonwood (Populus deltoides) Buttonbush (Cephalanthus occidentalis) Groundsel (Baccharis sp.) Willow (Salix nigra)
PSS2	Palustrine needle leaved deciduous scrub/shrub	Shrub wetland	Salt Cedar (Tamarix sp.)

NWI CODE	NWI DESCRIPTION	COMMON DESCRIPTION	VEGETATION/SUBSTRATE
PFO1	Palustrine broad leaved deciduous forest	Forest wetland	Cottonwood (Populus deltoides) Green ash (Fraxinus pennsylvanica) Hackberry (Celtis occidentalis) Elm (Ulmus sp.) Water elm (Planera aquatica) Willow (Salix nigra) Sycamore (Platanus occidentalis) River birch (Betula nigra) Oak (Quercus sp.) Pecan (Carya illinoensis)

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