Wet and Not Always Wet-
Delineating Wetlands in Various Texas Environments

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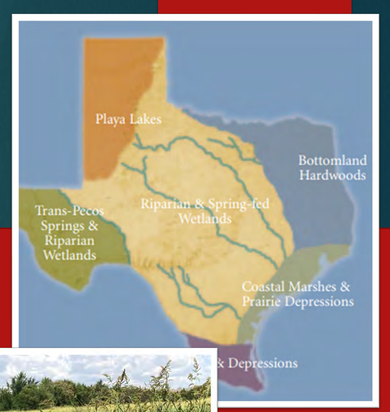
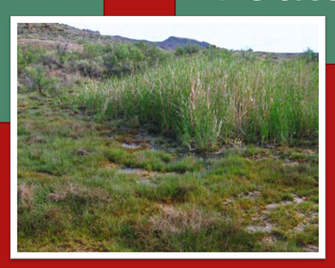
Similarities of Desert and Humid Wetlands in Texas

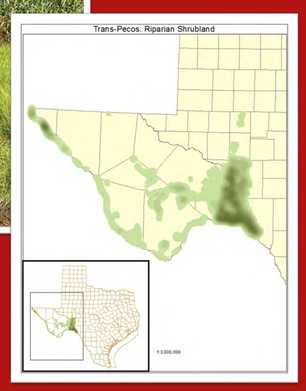


Wetland Plants
- Obligate
- Facultative Wetland
- Facultative Upland
- Upland



Wetland Hydric Soils
- Muck
- Depleted
- Redox Features

Wetland Hydrology
- Surface Water
- Saturation
- High Water Table
- Landscape Position



West Texas Trans-Pecos Wetlands

Spring fed Ciénagas are small, isolated springs that occur on the desert floor in West Texas. Swales occur in wind deflation areas where sands are scoured down to water table.

Vegetation
- Little to no forest cover
- Dominated by cottonwoods, willows, grasses and shrubs
- Salt-tolerant species

Soils
- Mostly dry, poorly developed
- Low in organic content
- High in carbonates
- Highly alkaline
- Surface salt crusts

Hydrology
- Temporary ponds, salt lakes, and ephemeral streams
- Water table is often perched
- Drainage basins often lacking outlets
- Saline Conditions

East Texas Riparian Bottomland Wetlands

True swamps are found in East Texas, from Houston east to the Sabine River

Vegetation
- Dominant trees are bald cypress, water tupelo, water oak, green ash and red maple
- Dominant understory consists of dwarf palmetto, Cherokee sedge, yaupon

Soil
- Young soils
- High organic content
- Clayey soils prevalent
- Slightly alkaline
- Soil is often saturated within the top 12 inches

Hydrology
- Inundated with floodwater from nearby rivers and streams
- Water marks on trees, sediment/drift deposits and water-stained leaves are often indictors of frequent inundation
- Slow moving or standing water

Lessons Learned-Desert Wetlands

- Desert wetlands change frequently
- Need to be very observant (e.g. vegetation change, scour, sediment deposits)
- Review current and historical aerials
- Sensitive to climate change

Lessons Learned-Riparian Wetlands

Determining Boundary

- Bottomland/riparian wetlands are difficult to classify due to past human activities (channelization, levees, agricultural drain tiles)
- Identify past flooding and inundation (drift deposits, water marks)
- Subtleties in determining wetland boundary