

## Abstract

This data layer depicts probable playas that were identified through a mosaic of three data sources: SSURGO soils data (produced by the Natural Resources Conservation Service), National Wetlands Inventory (NWI) data (produced by the U.S. Fish and Wildlife Service), and playas delineated through imaged-based analysis conducted by Playa Lakes Joint Venture (PLJV).

One of the most numerous wetland types in the Playa Lakes Joint Venture region are playa lakes. Playas are shallow, depressional wetlands that are generally round and small in size. They have clay-lined basins and naturally fill with water periodically from rainfall and its associated runoff. Precipitation is inconsistent in the PLJV region and drought is a common occurrence. The resulting wet-dry cycle of playas produces a highly diverse plant community. When wet, playas provide much needed seeds and invertebrates so migrating birds reach their breeding grounds in better condition. Likewise, birds that overwinter in the region have a better chance of success when playas are allowed to function naturally. Playa lakes may be the most important wetland habitat type for birds in this region. Playas are also thought to be primary sources of aquifer recharge. For more information visit <http://www.pljv.org>.

## Purpose

The dataset was developed to build an account of playas in the Playa Lakes Joint Venture Region for landscape planning purposes. Playa datasets like this one are put to use by the Playa Lakes Joint Venture and other conservation organizations for habitat assessment and targeting conservation projects to better support bird populations.

## Supplementary Information

Digital SSURGO soils data are available for the entire PLJV region and provide suitable representation of playas, though many small features are missed. NWI captures smaller wetland features than SSURGO data; however, complete state-wide coverage is only available for Nebraska. Small areas of Oklahoma, Kansas, and Colorado have NWI coverage and large portions of the Texas panhandle and eastern New Mexico have NWI coverage, produced through recent (2007) mapping efforts by U.S. Fish and Wildlife Service in conjunction with Texas Tech University. So where NWI data were available, they were used in this data layer to identify playas in place of SSURGO data. Additionally, playas delineated through remote sensing image analysis were used to supplement the soils and NWI data. The following describes datasets used in each state to identify playas.

In Colorado playas were derived largely from SSURGO soils data. For many Colorado counties SSURGO soils explicitly mapped playas; however

others required interpretation of the MUSYM. NWI data were used to identify playas in north-central Las Animas County (about a 400,000ac region). NWI features described as Palustrine Emergent Marsh with a water regime of Seasonally Flooded, Saturated, Temporarily Flooded or Intermittently Flooded, were classified as playas. Palustrine Farmed areas were also included because they are defined as playa and prairie pothole types in the type description.

In Kansas playas were derived largely from soils data developed at the University of Kansas using digital SSURGO data. NWI was used in place of SSURGO along the Arkansas River (typically within 50 miles of the channel) along with small regions (less than 50,000 acres) of Wichita, Scott, Saline, Lyon, Grant, Stevens, and Seward counties. NWI features described as Palustrine Emergent Marsh with a water regime of Seasonally Flooded, Saturated, Temporarily Flooded or Intermittently Flooded, were classified as playas. Palustrine Farmed areas were also included because they are defined as playa and prairie pothole types in the type description.

In Nebraska, all playas were derived from the NWI coverage. Playas are not explicitly distinguished from other surface water or wetland features in the NWI data so features were classified as playas based on NWI wetland classes and modifiers. Identification of playas was further refined by applying boundaries within which playas could occur. The Nebraska Game and Parks Commission defined the Southwest Playas, Central Table Playas, and Todd valley Playas regions. Within these regions, NWI features described as Palustrine Emergent Marsh with a water regime of Seasonally Flooded, Saturated, Temporarily Flooded or Intermittently Flooded, were classified as playas. Palustrine Farmed areas were also included because they are defined as playa and prairie pothole types in the type description.

In New Mexico playas were identified through a combination of SSURGO soils data and recent (2007) NWI coverage. Soils data interpretation (MUSYM) in New Mexico proved challenging as none of the counties explicitly mapped playa features. Only three counties mapped features that could be interpreted as possible playas (Roosevelt, Harding, and San Miguel). NWI coverage was used instead of SSURGO data in three counties (Quay, Curry, and Roosevelt). Unlike the NWI dataset for Nebraska, the NWI coverage for New Mexico distinguished playas from other wetlands so there was no need to interpret NWI classes and modifiers.

In Oklahoma playas were mapped largely by NWI but also some soil-based mapping. Recent (2007) NWI coverage was available for most of the Oklahoma panhandle where playas primarily occur, including Cimarron, Texas, and the western half of Beaver counties. Older NWI coverage was available for small scattered areas of Oklahoma and was used in place of SSURGO data. These areas include small parts of Alfalfa, Custer,

Comanche, Cleveland, Canadian, and Oklahoma counties and also along the Red River in Jefferson, Cotton, and Tillman counties. The soils data did not explicitly distinguish playas so interpretation of the MUSYM was required.

In Texas playas were identified through a combination of soil-based mapping developed by Texas Tech University and recent (2007) NWI coverage developed by US Fish and Wildlife Service in conjunction with Texas Tech University. The NWI data set was used to update the soil-based data set where available. NWI coverage was used for 27 counties, comprising the western two thirds of the Texas panhandle. Unlike the NWI dataset for Nebraska, the NWI coverage for Texas distinguished playas from other wetlands so there was no need to interpret NWI classes and modifiers.

See the attribute table for MUSYM types from SSURGO data that were interpreted to be playas. See individual metadata files from source datasets, or please contact the Playa Lakes Joint Venture for further information regarding the soil and imagery based playa identification process.