

Shortgrass Prairie and Central Mixed-grass Prairie Bird Conservation Regions 18 and 19 Playa Lakes Joint Venture

BCR Description and Priorities

The Playa Lakes Joint Venture (Joint Venture) encompasses two Bird Conservation Regions (BCR), Shortgrass Prairie (BCR 18) and Central Mixed-grass Prairie (BCR 19), as well as portions of six states — Colorado, Kansas, Nebraska, New Mexico, Oklahoma and Texas. More than 400 species of birds use the variety of upland and wetland habitats found in the playa lakes region. The Joint Venture is committed to planning for all birds of concern within its boundaries.

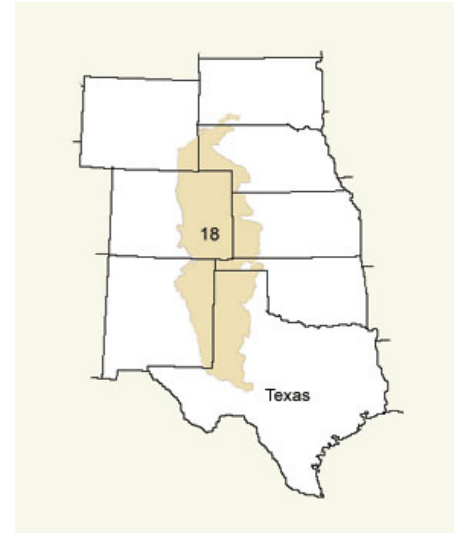
The dominant landscape of the Joint Venture region is prairie, which is essential habitat for many grassland birds whose populations have been declining at some of the highest rates in the country. Wetlands also are critical in supporting large migrating and wintering populations of waterfowl, waterbirds, marshbirds, and shorebirds. The most notable wetlands found in the Joint Venture are playa lakes; however prairie rivers, saline lakes, man-made reservoirs, stock ponds and associated wet meadows are also important. Scrub habitat and woodlands, though found to a much lesser extent, are still vital for several bird species.

Millions of ducks use playa lakes during their fall and spring migrations. Saline lakes are crucial for thousands of shorebirds, such as nesting Snowy Plovers, and roosting Sandhill Cranes. Other priority waterbirds include Least Tern, Black Rail, and American Bittern. Long-billed Curlews breed in large grassy areas often associated with playas. Grasslands support numerous landbirds, including upland game birds, such as the native Lesser Prairie-Chicken, as well as Cassin’s Sparrow, Lark Bunting, and Loggerhead Shrike.

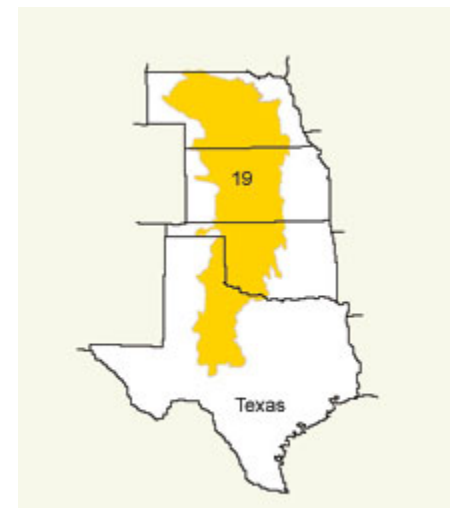
Conservation Design Approach

The Playa Lakes Joint Venture conducts integrated bird planning and conservation design in BCRs 18 and 19, which substantially coincide with the Joint Venture’s boundaries. Below is a brief summary of these planning activities and products:

- Active Planning Teams, representing the major bird initiatives, are made up of members from public agencies and private organizations from all states in the Joint Venture area.



**Bird Conservation Region 18
Shortgrass Prairie**



**Bird Conservation Region 19
Central Mixed-grass Prairie**

Conservation Design

- The Species for Management Action database tracks and sets species priorities that largely mimic national bird initiative priorities. The database also incorporates regional criteria to ensure planning covers all appropriate species.
- A Geographic Information System (GIS) consists of the best landcover data available merged into a seamless six-state dataset appropriate for assessing bird habitat.
- The Hierarchical All Bird Strategy (HABS) database includes an “accounting system” to track the number of individuals of a species supported by the landscape. HABS allows the Joint Venture to incorporate all four bird plan objectives into one system and design a landscape to support species at their desired population levels. HABS links species to habitat via densities (for breeding) or use-days (for winter and migration). Each linkage is a model that can contain other factors, such as habitat availability or suitability. For a few species that require larger blocks of habitat (e.g. Lesser Prairie-Chicken), more complex GIS models are used to determine available habitat. HABS multiplies densities or use-days by habitat acres to arrive at a current estimated carrying capacity across all habitats and all conditions, which a species occupies in each BCR portion of a state. This figure is then compared to population objectives to determine a ‘percent of goal achieved’ with current amounts and configurations of habitat.
- If a species is below its population goal, and additional habitat is deemed necessary, then the amount is determined by modeling (via HABS) acres needed for the species to reach its goal, while not creating deficits for other species.
- Results are distributed via Area Implementation Plans that give acreage recommendations for each habitat in the BCR part of a state.

There are some uncertainties with the HABS approach. A large number of assumptions, which are tracked, go into the models for species. For example, it is uncertain how well HABS incorporates species which are patchily distributed or occupy habitats not well captured by GIS. Other concerns, such as projecting habitat trends, will be incorporated into future planning.

Until now, this model has been applied in other portions of the continent, but not at the Joint Venture scale or for all priority birds. This level of integrated bird planning cost the Joint Venture a little more than \$400,000 in conception and implementation, primarily staff time. The time required to bring this to full implementation was approximately two years, but would take less time and money for others, because the conceptual framework and database structure are now developed.

The Joint Venture believes this level of planning, and relatively low associated cost, is appropriate considering the level of funding that is available for implementation by our partner natural resource agencies. This approach is flexible and easily adapted to include additional species, habitats, or conditions of those habitats. The Joint Venture is currently updating Area Implementation Plans for December 2006, and will update them every two years thereafter, incorporating new information as it becomes available.

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