

# A Strategy to Recover Lesser Prairie-Chickens Through A New or Modified Farm Bill Conservation Program

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The lesser prairie-chicken (*Tympanuchus pallidicinctus*) serves as an indicator for healthy grasslands and prairies. The species needs large, un-fragmented parcels of intact native grasslands and shrublands to maintain self-sustaining populations, primarily sand shinnery oak shrublands and sand sagebrush shrublands. Historical estimates suggest lesser prairie-chickens (LPC) once numbered in the hundreds of thousands, or even millions, across nearly 100-million acres. Currently, the bird occurs on only four million acres of land. Shortgrass prairies, sandy soil, sand shinnery oak, sand sagebrush, and native bluestem grasses make up their primary preferred habitats. Populations declined dramatically in the mid-20th century as native grasslands and shrublands were overgrazed, converted to agriculture, and invaded by trees. Resource developments, such as oil and natural gas wells and related infrastructure and industrial-scale wind energy developments, continue to degrade and fragment LPC habitats and increase threats to the species.

Lesser prairie-chicken management is a controversial topic with widespread implications for land use and energy development across five western states. The U.S. Fish and Wildlife Service (FWS) listed the bird as threatened under the Endangered Species Act in 2014, but the listing was voided a year later when a federal court ruled that the agency failed to properly take into consideration state and private conservation efforts. On November 24, 2022, the FWS published a final rule adding the lesser prairie-chicken to the list of threatened and endangered species. The southern distinct population segment (DPS), which ranges in west Texas and New Mexico, was listed as endangered and the northern DPS, which ranges in southeastern Colorado, Kansas, western Oklahoma, and northern Texas, was listed as threatened.

Most (>90%) LPC habitat is found on private land. Federal, state, and private conservation programs currently are limited in scope and their widespread and dispersed applications have not been measurably effective at restoring these habitats. We believe there is a need to focus application of existing and new conservation programs if LPC populations are to be recovered. Farmers and ranchers need technical assistance and financial incentives for habitat restoration. These producers cannot be expected to implement conservation practices for the LPC without adequate compensation for lost production or income.

Lesser prairie-chickens need large landscapes of relatively unbroken and undisturbed native grasslands and shrublands. Tree invasion into these vast habitats often renders them unsuitable for LPC. Scientific research has shown that prairie grouse will abandon grassland habitats with only a few trees present per acre. We proffer that the bird needs relatively unbroken and treeless habitats of at least 50,000 contiguous acres (20,234 hectares) to maintain healthy populations. These grassy and shrubby habitats must have minimal human disturbances (e.g., haying or livestock grazing) during the primary nesting and early brood-rearing seasons. We believe several of these “habitat concentration areas” are needed across the current (and perhaps even the historic) range of the species. Large, restored landscapes will serve as population strongholds so that the species may endure human disturbances, as well as natural pressures from the arid environment in which they live. Occupied habitats are often difficult to define, but areas within 5 miles of active leks should be considered as occupied and should serve as the primary focus for establishing and maintaining population strongholds.

Traditional public conservation programs, such as the Farm Bill’s Conservation Reserve Program (CRP) and the Environmental Quality Incentives Program (EQIP), have potential to encourage producers to adopt practices that can be used to patch together the desired landscapes. Trees can be removed and cropland converted back to grassland with these programs by providing financial incentives to willing landowners within each concentration area. At present, these programs are not doing enough and require improvements. Recent modifications to the CRP, specifically Grassland CRP, which allow normal livestock grazing practices may reduce program value for grassland birds. We believe there is need for a new conservation program, or at least effective changes within the current programs that provide adequate financial incentives to ranchers to restore rangeland health and maintain native grassland and shrubland cover. No adequate alternative to the highly successful Conservation Reserve Program for croplands exists for rangelands. Nor does it exist within other existing programs managed by the U.S. Department of Agriculture. Livestock producers and our citizens need a program that incentivizes annual rental payments in exchange for voluntarily delivering conservation benefits and associated loss of income needed to pay for these services in rangelands. Rangelands are highly diverse and provide forage

for domestic livestock. They also provide habitat for wild herbivores, prairie grouse, meadowlarks, and countless other birds, which unfortunately continue to suffer from major, long-term declines.

We recommend establishing a conservation program and/or a modification to one or more existing programs to allow most ranches in the Great Plains to incorporate rest into their grazing systems. In simple terms, rest means that one or more pastures are left un-grazed and unutilized for at least one year. Annual rest is best achieved in a cyclic, rotational pattern throughout a ranch. Periodic rest increases and improves plant species diversity, heterogeneity, soil health, stability, resilience, and sustainability, and adds stored carbon. We envision this approach to work with multi-pasture grazing systems in which pastures in a grazing system are rested in a sequence for up to three years. 🐮

Additional best management practices compiled for the lesser prairie-chicken using the best available science and expert opinion are:

- Avoid converting native grasslands to other uses.
- Restore health and plant diversity of existing and converted native grasslands and shrublands within 5 miles of active leks through use of high-diversity mixes of native grasses, forbs, and shrubs.
- Manage existing and restored grasslands with periodic disturbance regimes (e.g., grazing, fire) that encourage growth of diverse communities of native grasses, forbs, and shrubs.
- Manage livestock with a rest-rotation system where each pasture receives 12 to 36 months of rest from grazing.
- Maintain residual grass height and density necessary to achieve 8 – 12 inches of visual obstruction during nesting and brood-rearing seasons (April 1-July 31).
- Measure visual obstruction of nesting cover prior to peak nest initiation.
- Control noxious weeds by selectively spot-spraying herbicide, versus by field-level application.
- Delay grassland haying and mowing until after the primary nesting and early brood-rearing seasons (after July 31).



Photo by Stacy Hoerne