

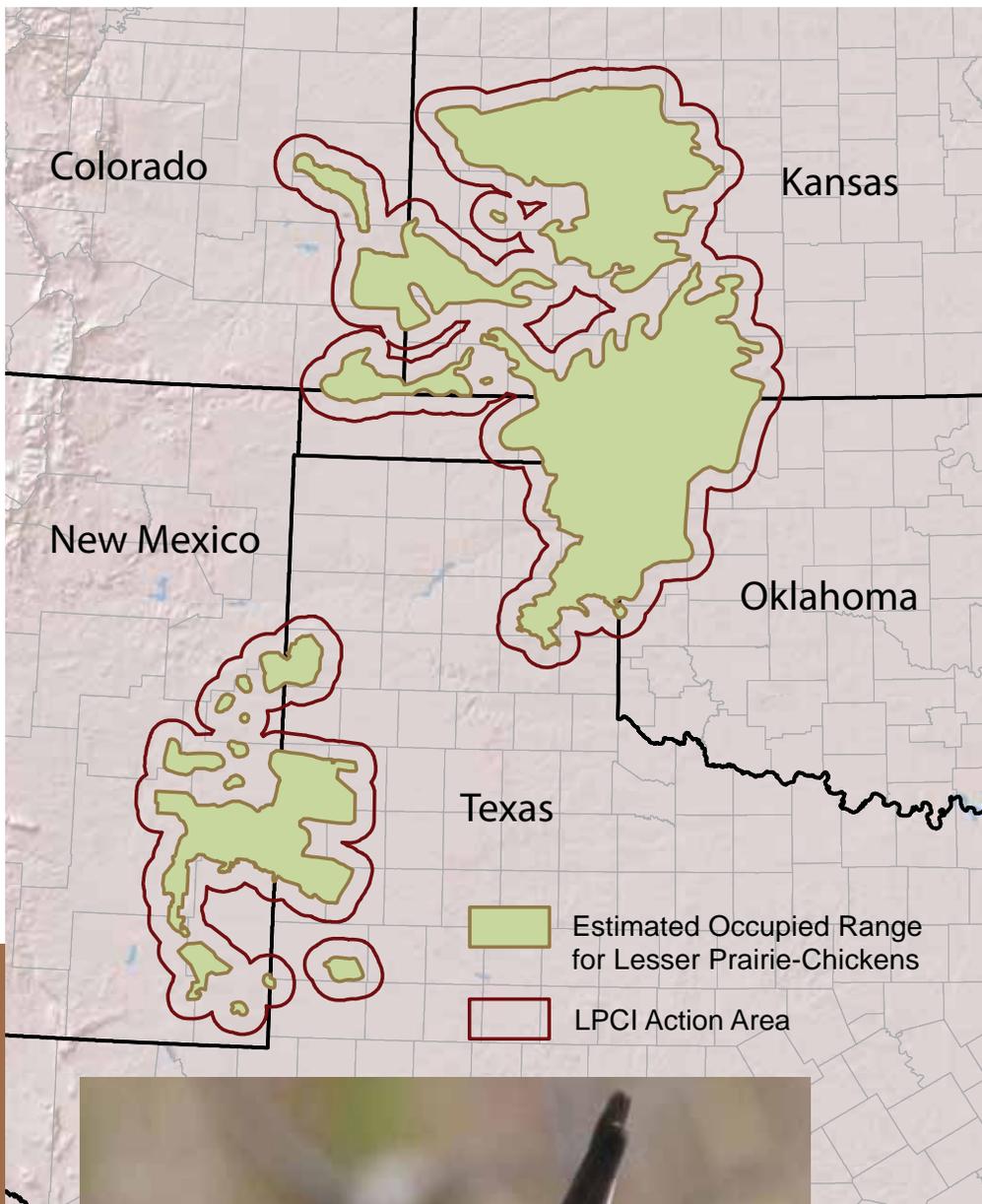
LESSER PRAIRIE-CHICKEN INITIATIVE

C O N S E R V A T I O N
A C R O S S T H E R A N G E



**LESSER PRAIRIE-CHICKEN
INITIATIVE**

PROGRESS REPORT 2015



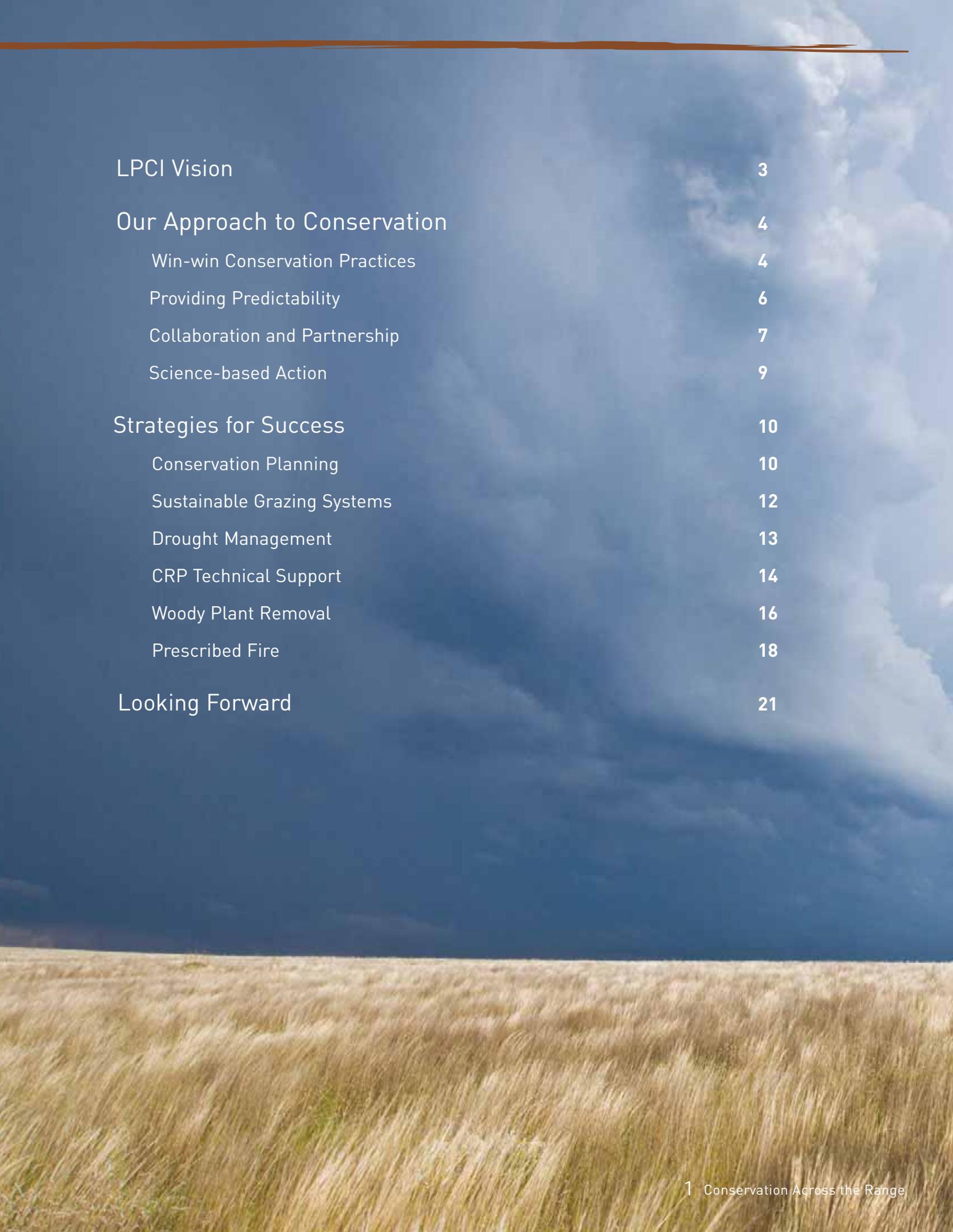
Lesser prairie-chickens inhabit five states in the Southern Great Plains. The LPCI Action Area includes the current estimated range of lesser prairie-chickens, plus a 10-mile buffer. Within that range, LPCI identifies priority habitats where conservation practices are likely to have the greatest positive impacts on lesser prairie-chicken populations.



What is the Lesser Prairie-Chicken Initiative?

In 2010, the Natural Resources Conservation Service (NRCS) launched the Lesser Prairie-Chicken Initiative (LPCI) to help ranchers and farmers voluntarily enhance lesser prairie-chicken habitat while improving the long-term sustainability of their agricultural operations.

www.lpcinitiative.org



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Patch-burn grazing—one of the practices that LPCI supports—helps maintain healthy grasslands on the Hashknife Ranch in southwest Kansas.

Revitalized Rangelands



“When I inherited the land, everything was old—the fences, the redcedars. I was really lucky that there were funding sources to help cover the cost of taking care of the land. Without those funds, there’s no way I could put these practices into action.”

—Lisa Ballout, Kansas

Sustaining Wildlife and Rural Heritage

The Vision: Imagine revitalized prairie across the Southern Great Plains, where cattle graze grasslands that teem with wildlife and the booming of prairie-chickens carries on the wind. Imagine families working ranchlands handed down through generations, knowing they can pass this heritage on to their children and grandchildren.

The Challenge: Unbroken prairie sculpted by fire and bison has become increasingly intermixed with croplands, roads, and buildings. Invasive trees and shrubs further fragment remaining grasslands. Many prairie wildlife species have declined, including the lesser prairie-chicken. This prairie grouse is a species of conservation concern, the focus of a partner-driven, range-wide conservation effort.

The Opportunity: Roughly 95% of the prairie habitat that currently supports lesser prairie-chickens is privately owned. Restoring grasslands benefits both ranchers and wildlife. Technical and financial support from the Lesser Prairie-Chicken Initiative partnership helps ranchers carry out voluntary range conservation practices.



A New Approach



How does LPCI approach landscape-scale prairie habitat restoration? Through win-win conservation, regulatory predictability, collaboration and partnership, and science-based action.

Working for Bird and Herd: Win-Win Conservation Practices

Whether you're a cow or a prairie-chicken, you need healthy rangeland to thrive. LPCI's voluntary range conservation strategies help ranchers improve the productivity and drought resilience of their rangeland, decrease invasive woody plants, improve grazing distribution, and more. That's good for the ranch's bottom line, and it's good for lesser prairie-chickens and other prairie wildlife.



"Whatever's good for the chicken is good for the rancher. The things I do for conservation are things I want to do for my ranch anyway, so for me they go hand in hand."

~ Bill Barby, B Bar B Ranch, KS



Under the Prairie-Chicken's Umbrella

"If I can manage the ranch and take care of the most susceptible species, everything else will fall into place and take care of itself."

_Ed Koger, Hashknife Ranch, Kansas



Measuring the Umbrella Effect

In 2015, researchers launched a study of the effects of LPCI conservation practices on populations of other grassland bird species. The research is made possible by a partnership among private landowners, NRCS, LPCI, Playa Lakes Joint Venture and the Bird Conservancy of the Rockies.

Ecologists consider the lesser prairie-chicken an "umbrella species." When LPCI conservation practices improve habitat conditions for this prairie grouse, they help many other prairie wildlife species too.



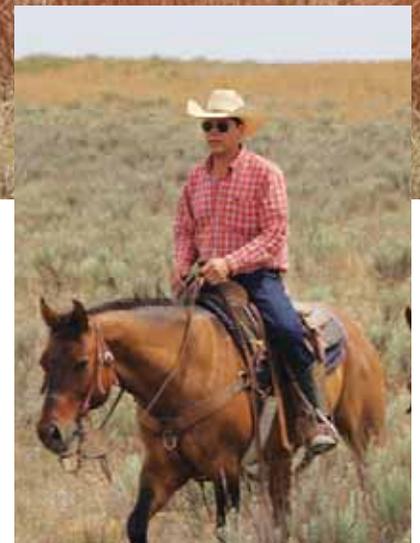
Bison at the Z Bar Ranch in southern Kansas, where ranch managers Keith and Eva Yearout use a suite of conservation practices to maintain rangelands that benefit ranch operations and wildlife.

Providing Predictability: Assurance for the Future

In an unprecedented partnership between the U.S. Fish and Wildlife Service and NRCS, producers can continue the good work on their land regardless of the lesser prairie-chicken's conservation status.

When a rancher signs an LPCI contract, they are protected from any "incidental take" of the lesser prairie-chicken caused by implementing the conservation practices associated with the program.

If the rancher voluntarily continues to implement the conservation practices beyond the contract duration, any incidental take associated with their implementation is exempted for up to 30 years (until 2043).



In 2014, Texas rancher Clay Cooper became the first LPCI rancher to adopt a Working Lands For Wildlife plan, which provides long-term assurances about Endangered Species Act regulation. As of November 2015, 30 Texas ranchers had initiated predictability plans on 150,000 acres.

A Shared Vision: Collaboration and Partnership

Improving lesser prairie-chicken habitat happens one ranch at a time, through face-to-face conversations that build trust and commitment. More than 20 organizations partner with NRCS to implement LPCI's conservation strategies. Several partners help fund range conservationists and biologists who work one-on-one with private landowners to develop conservation plans and provide technical assistance.

LPCI partners embrace a broad range of organizational missions. We're united by the common goal of conserving lesser prairie-chickens.



LPCI partner-funded range conservationist Ken Brunson (in red) checks the humidity level with members of the Gyp Hills Prescribed Burn Association, Kansas.

"Ken [Brunson, LPCI range conservationist] is a tremendous resource. It takes someone like him to pull all the pieces together."

_Lisa Ballout, rancher, Kansas



In New Mexico, several LPCI partners pool resources to fund LPCI wildlife biologists Jake Swafford (left) and Amy Erickson (second from left), who work one-on-one with landowners.



LPCI partners include several regional universities conducting lesser prairie-chicken research.



Rancher Ed Koger, right, looks on as researcher Jonathan Lautenbach attaches a satellite transmitter to a heifer. The transmitter will record how the cow utilizes patch-burned grasslands.



What the Science Tells Us

What factors affect how female prairie-chickens utilize the prairie landscape? Sixteen researchers contributed to a study published in 2015 that explores that question. The report analyzed nearly 20 years of data on 10 populations of greater and lesser prairie-chickens in five states.

The findings validate some of LPCI's key conservation strategies. More than 95 percent of the 382 females monitored in the study had home ranges centered within three miles of leks. LPCI conservation practices target grassland habitat around leks.

Measuring Impacts: Science-based Action

How do lesser prairie-chickens respond to patch-burn grazing? Do LPCI's conservation practices really benefit other grassland species? How do prairie-chickens utilize the prairie landscape?

Researchers at regional universities work together to answer these questions and many more. Their findings measure the direct biological benefits of habitat improvements and help ensure that LPCI conservation investments are strategically placed to have the greatest benefit for the species.

Since 2010, LPCI has invested more than \$800,000 to help fund lesser prairie-chicken research, leveraging partner funding that has more than doubled that investment.



Male lesser prairie-chicken (right) displays for a female on a lek on the Hashknife Ranch in Kansas. The female's satellite transmitter allows researchers to track her movements.

Strategies for Success:

Bringing Conservation Home on the Range



LPCI Farm Bill Wildlife Biologist Megan Waechter inventories available forage during the conservation planning process, Kansas.

Lesser Prairie Chicken Initiative uses six core conservation strategies to improve habitat for lesser prairie-chickens.

Conservation Planning: Setting the Stage for Prairie Health

Third-generation Texas rancher Steve Rader has worked with NRCS for decades to plan and implement conservation practices that meet his ranching goals. So when he had the opportunity to develop a conservation plan that offered the additional benefit of predictability, he jumped at the chance.

After determining that Rader's property was suitable habitat for lesser prairie-chickens and could be improved to benefit the species, LPCI partners conducted a full resources inventory and planned conservation practices that met both Rader's and the bird's needs.

Conservation planning offers ranchers a blueprint for action that will help improve the long-term sustainability of the ranch while improving lesser prairie-chicken habitat.

"NRCS has helped us for 50 years, and they've been a strong, reliable source for good advice."

~ Steve Rader, Texas



Mary Foster, NRCS district conservationist, reviews a conservation plan with Texas rancher Steve Rader.



LPCI partner funding has helped Alexander plan and implement wildlife-friendly grazing systems, including solar pumps that move water to distributed stock tanks.

"Ranchers need to change their paradigm of management, from 'take everything that I can take' to 'I need to understand what I need to leave to benefit the wildlife and other species that live on the prairie.'"

~ Ted Alexander, Kansas

Sustainable Grazing Systems: Improving Range Vitality

Historically, large herds of bison and elk roamed the Southern Great Plains, shaping the prairie grasslands through periodic, intensive grazing. LPCI works with ranchers to develop grazing strategies that mimic this natural dynamic.

LPCI provides financial and technical assistance to help ranchers implement sustainable grazing systems through such practices as adjusting cattle stocking rates and timing, resting pastures, and building water systems that distribute grazing.

Managed Intensive Grazing on the Alexander Ranch, Kansas

"I've gone from the Columbus style of grazing to managed intensive grazing," rancher Ted Alexander says, thinking back on more than three decades of ranching. Columbus grazing, he explains with a grin, is when you put the cattle out in the spring and go discover them in the fall.

By improving his grazing system and introducing other conservation practices like prescribed fire, Alexander has increased his forage production 150-200% and improved grassland habitat for wildlife.



Drought Management: Preparing for Dry Times

"I'm not afraid of drought after seeing I can manage through it." says rancher Bill Barby of western Kansas. "When the next one comes, I'll have confidence to deal with it."

That's just the kind of outcome LPCI financial and technical assistance is designed for. In the drought-prone prairie landscape, keeping grasslands healthy helps them cope with and rebound from drought.

LPCI helps ranchers develop drought contingency plans, which spell out what to do when the rain stops. Quick, clear response helps minimize the long-term effects of drought.

Drought Resiliency on the B Bar B Ranch

"In 2011, I lost most of my sand lovegrass and some of my little bluestem," says rancher Bill Barby. "It was a shock to have that die." During the drought of 2011 - 2012, temperatures soared and rainfall plummeted.

But Barby was ready. Through his LPCI contract, Barby had implemented grazing strategies specifically designed to improve the health of lesser prairie-chicken habitat. He also developed a drought contingency plan.

"Having a written drought plan was instrumental in getting destocked in a timely manner when the drought came," said Barby.



Rancher Bill Barby (right) discusses his range conservation strategies with LPCI science advisor Christian Hagen.

"We live in dry country. Even though we're out of the drought, our land is so fragile and takes a long time to recover. You've got to let it heal itself."

~ Steve Rader, Rader Ranch, Texas



This bird's eye view of Kansas prairie shows fallow cropland (foreground), cropland in wheat (upper right), and CRP grassland (upper left). If you were a prairie-chicken, where would you nest and raise young?

Conservation Reserve Program Technical Support: From Grasslands to Grazing Lands

The Conservation Reserve Program (CRP) currently enrolls more than 4.8 million acres of land within the lesser prairie-chicken's range. Fragile soils previously plowed for crops are seeded in grasses and forbs, stabilizing the soil and restoring vital prairie habitat for wildlife. Of that acreage, more than 4 million are planted in native species.

But when those CRP contracts expire, that habitat can disappear if it's more economically viable for the landowner to return the land to crops, rather than maintaining the grasslands for grazing.

Installing a perimeter fence to utilize expired CRP lands for grazing can be cost-prohibitive. LPCI financial assistance may be available to help cover those costs, as well as the costs of other range management practices like water development and prescribed fire.



When Dwight Abell's 10-year CRP contract expired in 2015, he looked to LPCI for assistance in shifting the expired CRP grasslands to cattle grazing. It's a win-win proposition.

LPCI funds help ranchers convert expired CRP grasslands into a working landscape.



Two CRP grasslands of different age classes offer varied habitat structure, which lesser prairie-chickens need.

“Raising cattle has made us more money every year than farming has—we’re able to keep more. I’m 100% committed—I’m not going to tear this out. It just works better for our operation to have cattle and grass.”

—Dwight Abell, Kansas

A successfully hatched lesser prairie-chicken nest in CRP grassland.



Reclaiming the Prairie on the Hashknife Ranch, Kansas

When Ed Koger began managing the Hashknife Ranch in 1974, redcedars covered most of the ranch.

“The more I cut and burned, the more [prairie] chickens there were, along with quail, and grasshopper sparrows, and everything else,” he says. “As long as I incorporate fire in my management of the prairie on this ranch, I’m going to have more wildlife, and I’m going to produce more pounds of beef.”

Woody Plant Removal: Bringing Back Grasslands

For thousands of years, regularly occurring fires burned away most woody plant species that took root on the prairie. Since settlement, fire suppression and development have changed this natural dynamic. Eastern redcedar and honey mesquite are the leading woody invasives.

Slowing the Green Glacier: Redcedar Control

In the absence of fire, eastern redcedar is overtaking prairie grasslands at a phenomenal pace. In Oklahoma alone, redcedars have invaded eight million acres of the state’s 17 million acres of rangeland.

A one-two management punch—mechanical removal of redcedar followed by prescribed fire—can restore open grasslands. LPCI helps ranchers carry out these labor-intensive and costly practices.





West Side Invasion: Honey Mesquite

On the southwestern edge of the Southern Great Plains, lesser prairie-chickens and other grassland wildlife face a different woody invasive—honey mesquite. Like redcedar, mesquite is native to the prairie, but overgrazing and fire suppression have allowed it to spread far beyond historic proportions.

Lesser prairie-chickens abandon prairie habitat where mesquite grows. Removing mesquite restores grasslands, which helps both wildlife and cattle.



Taking on Mesquite: Weaver Ranch, New Mexico

As land manager for the Weaver Ranch, Willard Heck worked with LPCI partners to treat 400-500 acres of mesquite with both aerial and hand application of herbicides. Once the plants were dead, Heck knocked back the dead brush to remove the vertical structure that repels prairie-chickens. A rich diversity of grasses and forbs now covers those prairie grasslands.

Research shows that lesser prairie-chickens stop nesting in grasslands that have just one tree per 1.2 acres.



Neighbor Helping Neighbor: The Gyp Hills Prescribed Burn Association

It takes careful planning and plenty of helping hands to conduct a prescribed burn safely and well. The Gyp Hills Prescribed Burn Association in southwest Kansas is an example of how neighbors help neighbors get the job done.

“People don’t just help each other with the burns, they help with advice and wisdom,” says Gyp Hills PBA member Lisa Ballout. “They’ve made all the difference in the world to me.”

Prescribed Burning: Restoring Fire to the Prairie

Historically, fire was a natural and regularly occurring part of the Southern Great Plains. Fire invigorates native grasses and forbs that native prairie wildlife rely on for food and shelter. Fire also helps create variety in grassland structure and age, which lesser prairie-chickens need.

LPCI assistance helps ranchers plan and carry out prescribed burns to improve grassland habitat.





In patch burn grazing, only a portion of a pasture is burned each year. Cattle spend most of their time on the newly burned area, which fills with lush new growth. This allows less recently burned parts of the pasture to rest and creates varied structure, mimicking historic prairie dynamics.



Lesser prairie-chicken males spar on a lek that burned four days earlier.

LPCI in Review

Lesser Prairie-Chickens at a Glance:

- Estimated range-wide population in 2015: 29,000
- Conservation population goal: An average of 67,000 over 10-year period
- Acres within current habitat range: 25 million
- Percentage of current range in private ownership: 95
- Number of private landowners enrolled in LPCI's voluntary range-enhancement programs, 2010-2015: 459
- Acreage enrolled in LPCI contracts, 2010-2015: 1,062,246
- Acreage currently enrolled in the Conservation Reserve Program in lesser prairie-chicken range: More than 4.8 million
- Number of field staff annually supported by LPCI partner funding: Up to 13
- LPCI funding invested in habitat conservation 2010-2015, leveraging more than \$9 million in partner funds: More than \$23 million



"I can't tell you how excited I was when I saw the first prairie-chicken on my place." _Lisa Ballout, Kansas



Looking Forward

Heading into 2016, the NRCS-led LPCI partnership will continue its mission to support ranchers in maintaining healthy prairies. Our overarching goal moving forward is to provide conservation milestones and predictable funding levels to meet them. Specific goals that will help accomplish this include improving the targeting and delivery of invasive woody plant control and increasing awareness and use of fire—a critical tool in grassland conservation.

Our hats are off to the many outstanding land stewards and field staff we have worked with during the past five years. We look forward to expanding our partnerships that benefit producers and wildlife and conserve vital parts of our national heritage.

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*Keeping lesser prairie-chickens
booming through sustainable
range management.*

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