



NATURAL RESOURCES CONSERVATION SERVICE



**LESSER PRAIRIE-CHICKEN INITIATIVE**  
FY16-18 CONSERVATION STRATEGY

## LETTER FROM THE CHIEF

### NRCS' Commitment to the Lesser Prairie-Chicken

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

As part of the agency's Working Lands for Wildlife (WLFW) family, LPCI uses science and partnerships at the local, state and federal levels to strategically implement win-win solutions and conserve working landscapes.

About 95 percent of the lesser prairie-chicken range falls on private lands, making conservation efforts on these productive family farms and ranches pivotal to the lesser prairie-chicken's success. LPCI's voluntary- and incentive-based approach to conservation has proven popular with private landowners and partners across the five-state region. The results speak for themselves. Since 2010, NRCS, private landowners and partners have teamed up and protected more than 1 million acres of lesser prairie-chicken habitats.

We have no intentions of slowing down. In this report, we lay out our continued commitments to the LPCI partnership through 2018, the life of the current Farm Bill. We expect to see the amount of conserved habitat climb to 1.5 million as a result of these new investments.

We're also refocusing LPCI resources to align closely with those of our partners and addressing specific threats in focal areas to maximize resulting benefits. And we'll monitor the bird's response to habitat restoration to quantify the effectiveness of our investments in bringing back lesser prairie-chicken populations while improving agricultural operations.

LPCI would not exist without the hard work and commitment from our partners, especially stewardship-minded farmers and ranchers who are stepping up to voluntarily conserve habitat. Please join me in thanking each and every one of them for a job well done and actively seek opportunities



#### **Bringing back the lesser-prairie chicken.**

Farmers and ranchers in the southern Great Plains are integrating wildlife-friendly practices on their working lands. Photo by Michael Pearce.

to further the conservation success. LPCI is living proof that wildlife and agriculture can coexist and thrive together.

The steps we're taking to improve habitats for the lesser prairie-chicken and other wildlife are good for cattle, good for agricultural operations, and good for America's rural economy.



Jason Weller

*Chief, USDA's Natural Resources Conservation Service*



About ninety-five percent of the lesser prairie-chicken range falls on private lands, making conservation efforts on these productive family farms and ranches pivotal to the lesser prairie-chicken's success.

## EXECUTIVE SUMMARY



**Targeted approach.** NRCS uses a science-based, strategic approach to conserving lesser prairie-chicken habitat to maximize outcomes. Photo by Michael Pearce.

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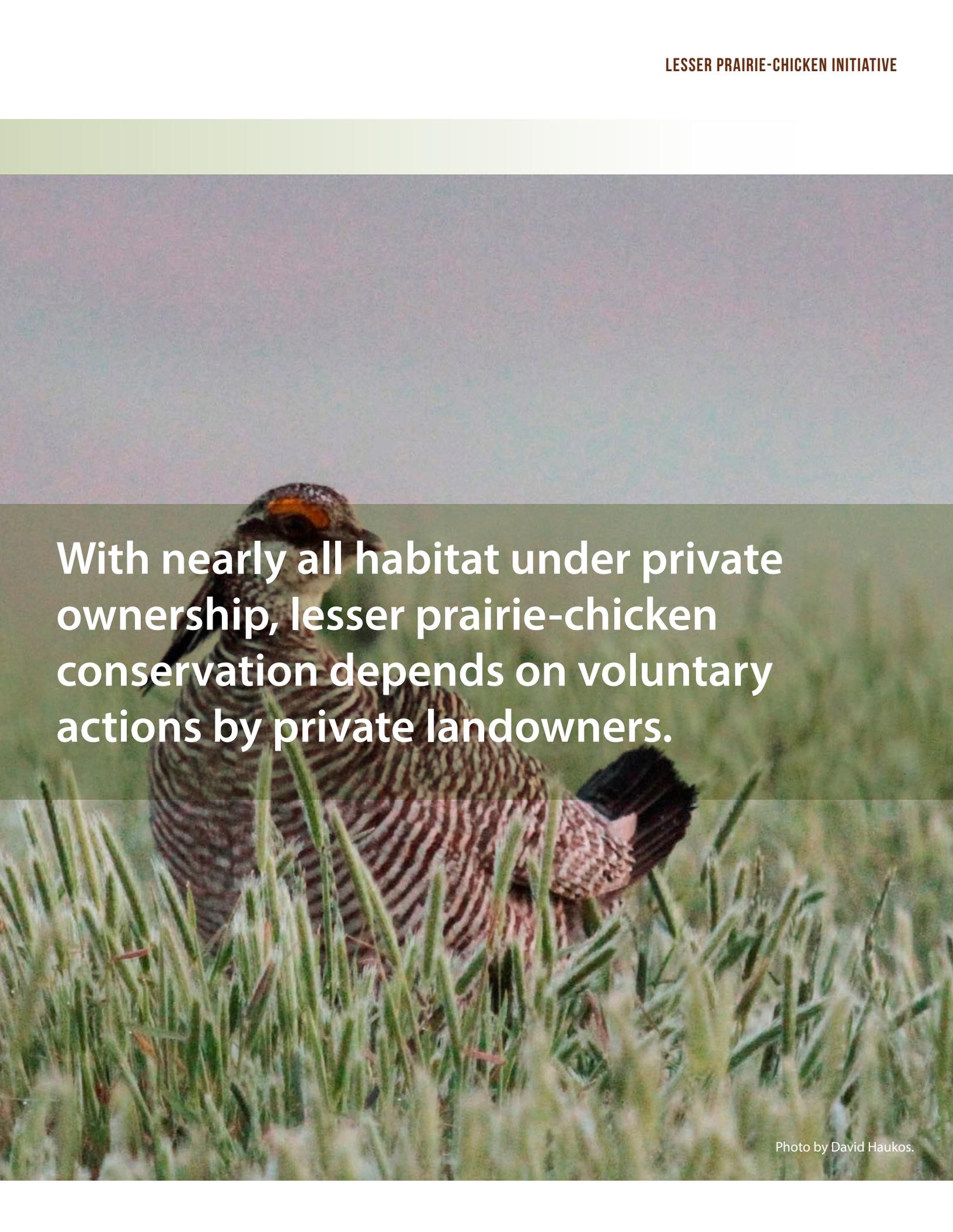
An icon of America's grasslands, the lesser prairie-chicken is a ground-nesting species of grouse found only in the southern Great Plains. Best known for their dramatic courtship display, lesser prairie-chickens depend on grassland habitats that have evolved under the interaction of fire and large herbivore grazing over the years. Primarily due to large-scale loss and fragmentation of habitat, their range distribution has been reduced by roughly 85 percent. Currently, lesser prairie-chickens inhabit portions of five states — Kansas, Oklahoma, New Mexico, Texas and Colorado.

About 95 percent of the lesser prairie-chicken's habitat is privately owned. With nearly all their habitat under private ownership, voluntary actions by private landowners are pivotal to the bird's success. USDA's Natural Resources Conservation Service (NRCS) has a long history of successfully working with private landowners to voluntarily conserve agricultural lands. Since 2010, NRCS has been working with producers to restore and protect habitat for the lesser prairie-chicken through the Lesser Prairie-Chicken Initiative (LPCI). Conservation efforts are designed to be win-win, benefitting the bird while improving the long-term sustainability of agricultural operations. New research demonstrates that sustainable grazing and lesser prairie-chicken conservation are not only compatible

but interdependent.

To help producers accelerate implementation of beneficial conservation practices and increase the overall effort, NRCS uses Farm Bill conservation programs, including the Environmental Quality Incentives Program (EQIP), Agricultural Conservation Easement Program (ACEP) and Conservation Stewardship Program (CSP). Since 2010, NRCS has invested almost \$24 million through LPCI. Participating landowners and conservation partners have invested an estimated \$10 million, bringing the total LPCI conservation investment to almost \$35 million. As a result, private landowners have conserved more than 1 million acres of lesser prairie-chicken habitat.

The lesser prairie-chicken is currently not a listed species under the federal Endangered Species Act after a federal court vacated the threatened status designated by the U.S. Fish and Wildlife Service in March 2014. Regardless of current or future ESA listing determinations for the lesser prairie-chicken, NRCS remains firmly committed to promoting and delivering long-term conservation of the working grassland ecosystems that the species needs.

A photograph of a lesser prairie-chicken standing in a field of tall, green grass. The bird is the central focus, showing its characteristic brown and black striped pattern on its body and a distinctive orange patch on its head. The background is a soft, out-of-focus landscape under a pale sky.

With nearly all habitat under private ownership, lesser prairie-chicken conservation depends on voluntary actions by private landowners.

## FY 16-18 CONSERVATION STRATEGY



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**Power of Partnership.** NRCS works closely with conservation partners and ranchers to make long-lasting conservation improvements for wildlife. Photo by Quenna Terry.

In late 2015, NRCS leaders from the five southern Great Plains states met to discuss future conservation planning and develop a long-term LPCI commitment from fiscal 2016 to fiscal 2018, the remaining years of the 2014 Farm Bill. This conservation strategy combines the five locally-developed state plans into a single comprehensive commitment to lesser prairie-chicken conservation. This three-year conservation strategy is designed to complement companion conservation efforts underway through the Western Association of Fish and Wildlife Agencies (WAFWA) Lesser Prairie-Chicken Range-wide Conservation Plan to maximize beneficial outcomes.

Over the next three years, NRCS plans to conserve about 500,000 new acres. Additionally, NRCS also plans to reinvest in the highly successful partnership that provides efficient field delivery and effective science and communication support. Resulting investments are projected to bring the total acres conserved under LPCI to more than 1.5 million by the end of 2018. NRCS is also exploring future expansion of the LPCI toolbox by incorporating conservation easements. Several states

have already initiated the process of determining where highest priority acres for easements are located and are pursuing local sponsors for conservation easements. CSP is also being restructured to help landowners enhance lesser prairie-chicken habitat.

With the five states working and planning together with their state and local partners, this strategic commitment by NRCS leadership sends a strong signal that voluntary conservation of the lesser prairie-chicken will continue well into the future.

**New research demonstrates that sustainable grazing and lesser prairie-chicken conservation are not only compatible but interdependent.**

## CONSERVATION ACTION

**Threat Addressed: Degraded Rangeland Health, Drought and Climatic Extremes**

**Purpose and Need:** Lesser prairie-chickens require diverse and healthy grassland habitats to meet their seasonal needs. Prescribed grazing of livestock is the primary conservation practice required to maintain essential habitat. Additionally, prescribed grazing to maintain rangeland health provides greater resilience to droughts, which are frequent throughout the bird's range.

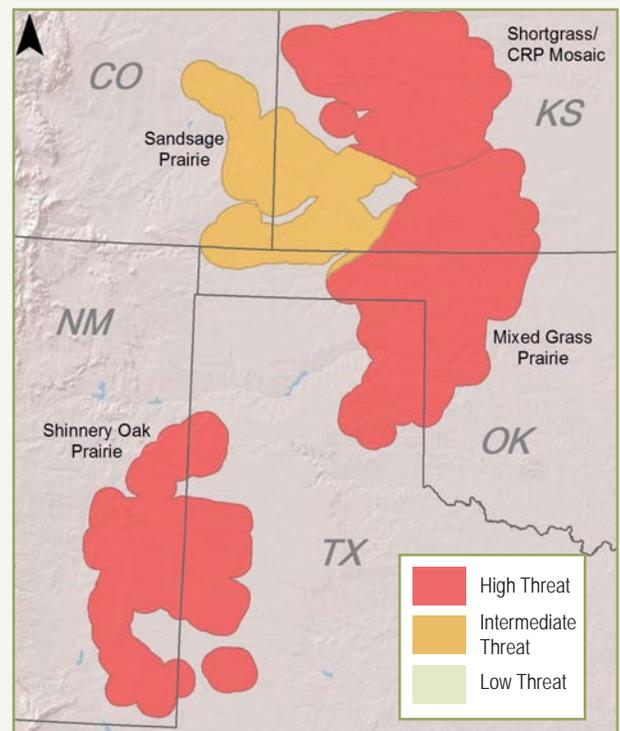
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**Priority Areas:** Focal Areas and Connectivity Zones (FACZs) identified by WAFWA are used as priority areas in all five states for targeting technical and financial resources. Further targeting in these priority areas occurs on lands near active lek sites and those where invasive woody species have been removed.

**Conservation Objective:** NRCS aims to provide vegetative structure required to sustain nesting and brood-rearing success. Rangelands grazed under prescribed grazing plans will also see reduced impacts from drought conditions and will recover more quickly when adequate moisture is present.

**Funding Source:** Environmental Quality Incentives Program (EQIP)

**LPCI Targeting:** NRCS aims to restore grassland and prairie ecosystems evolved under the interaction of fire and large herbivore grazing. The vegetation present in the rangeland ecosystem thrives when a portion of the annual growth is removed by grazing. Without this natural process, the ecosystem does not maintain a healthy diverse plant structure. Focal areas identified by WAFWA are targeted for prescribed grazing assistance to maintain 70 percent of prime habitat.



**Improving Rangeland Health.** NRCS and conservation partners are working with ranchers to improve the health of working rangelands.



**Good for the Bird, Good for the Herd.** Healthy rangelands provide better forage for cattle while also providing critical wildlife habitat.

**LPCI Outcomes:** Since 2010, LPCI has applied prescribed grazing on 406,000 acres. These acres have customized grazing management plans that enhance lesser prairie-chicken habitat, provide for a healthy vegetative resource, reduce the effect of drought conditions, and allow for the long-term financial stability of the grazing resource. Grazing plans consider the current and potential conditions of ecological sites to manage grasses, forbs and shrubs to achieve desired outcomes.

**FY16-18 Strategy Refinement:** This three-year conservation strategy brings prescribed grazing to a more targeted level by focusing grazing prescriptions on identified FACZs. Conservation benefits of prescribed grazing will be maximized since all lesser prairie-chicken partners are also using common focal area to target their conservation efforts as well.

PRESCRIBED GRAZING	
State	Acres
Colorado	100,200
Kansas	140,000
New Mexico	80,000
Oklahoma	13,500
Texas	180,000
<b>TOTAL</b>	<b>513,700</b>

## CONSERVATION ACTION

### Threat Addressed: Invasive Conifers

**Purpose and Need:** Lesser prairie-chickens prefer large and intact grasslands free from visual obstructions and avoid areas with as little as 2 percent tree cover. Nest sites are clearly selected to be more than a quarter of a mile from the nearest tree. Invasion by eastern redcedar has significantly decreased the treeless acres throughout the bird's range, decreasing suitable habitat.

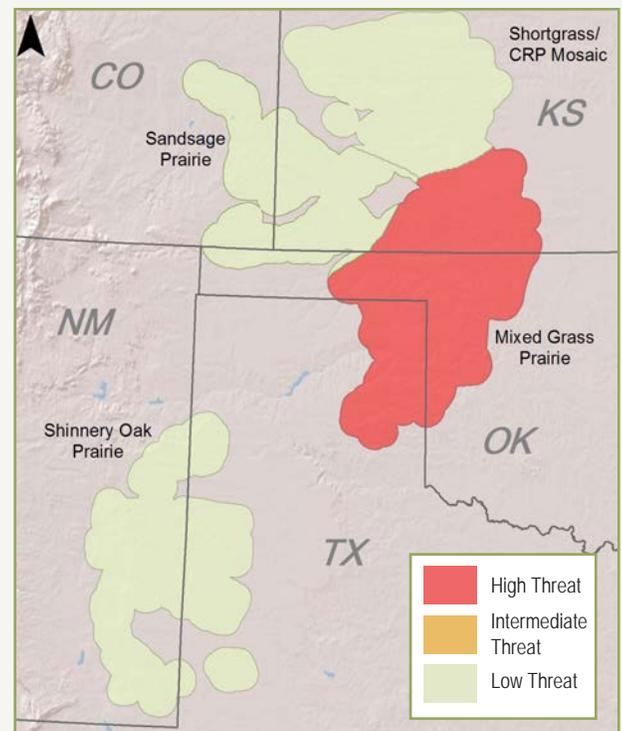
**Priority Areas:** FACZs identified by WAFWA are used by all states to focus efforts to control redcedar. Further targeting occurs in areas with known bird populations and active lek sites.

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**Conservation Objective:** NRCS aims to reduce visual obstructions by redcedar in lesser prairie-chicken habitat. Redcedar also uses a large amount of water, which greatly reduces herbaceous vegetation production and reduces the amount of groundwater reaching stream channels.

**Funding Source:** EQIP

**LPCI Targeting:** Lesser prairie-chickens do not use habitat with visual obstruction as researchers observe a strong intolerance to vertical structure on sites with as little as 2 percent redcedar canopy cover. Redcedar encroachment has decreased potential lesser prairie-chicken habitat throughout a large part of the mixed grass ecoregion and other isolated areas. While progress has been made in controlling woody species, there has not been the ability to focus efforts where the greatest potential biological return can be realized. LPCI refinement will be achieved by targeting redcedar stands within FACZs that contain less than 5 percent canopy cover, with a further priority placed on acres with 1.5 to 2 percent canopy cover.



**Removing Invasive Conifers.** NRCS and conservation partners are working to remove invasive redcedar trees and other conifers, which degrade grassland and prairie ecosystems.



**As Far As the Eye Can See.** Research shows lesser prairie-chickens avoid grasslands and prairie where conifers are invading the landscape. Photo by Ken Brunson.

**FY16-18 Strategy Refinement:** Removing early successional redcedars has the greatest potential to produce the highest positive impact to lesser prairie-chicken per dollar invested. This three-year strategy will greatly refine removal efforts by incorporating new targeting approaches to maximize outcomes. Newly created redcedar mapping tools provide the opportunity to effectively target resources to acres where lower infestations will allow a quicker return on investments. The strategy will also increase redcedar removal efforts, resulting in a projected removal of 23,000 acres in three years, an amount equivalent to 20 percent of the range-wide infestation.

INVASIVE CONIFERS	
State	Acres
Colorado	40
Kansas	9,800
New Mexico	0
Oklahoma	13,500
Texas	0
<b>TOTAL</b>	<b>23,340</b>

## CONSERVATION ACTION

### Threat Addressed: Invasive Mesquite

**Purpose and Need:** Lesser prairie-chickens prefer large and intact grasslands free from visual obstructions and avoid areas with as little as 2 percent woody species canopy. Nest sites are clearly selected to be more than a quarter of a mile from the nearest tree. Invasion by mesquite has decreased the treeless acres throughout the bird's range, especially in parts of Texas and New Mexico, decreasing habitable acres in these areas.

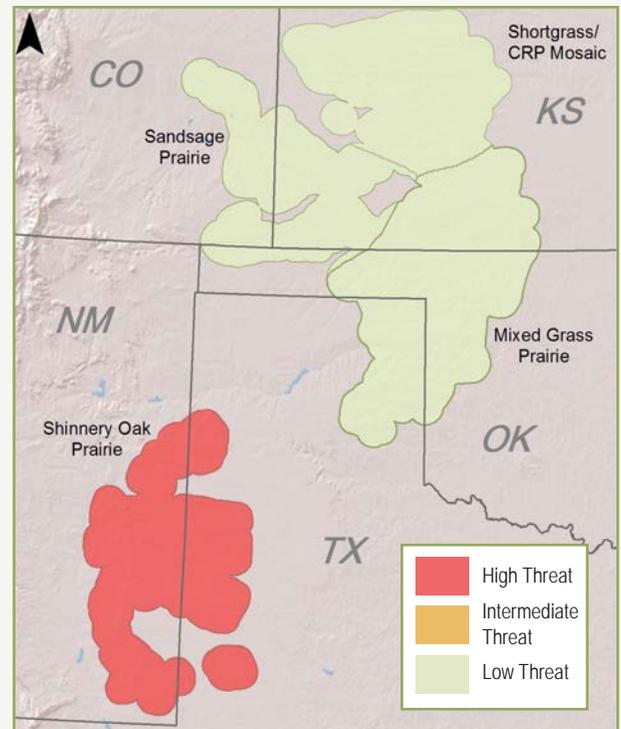
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**Priority Areas:** FACZs identified by WAFWA are used to focus mesquite control efforts. Further targeting within the FACZs will occur on ecological sites ranked as having a higher potential to provide lesser prairie-chicken habitat.

**Conservation Objective:** NRCS aims to reduce visual obstruction by mesquite in lesser prairie-chicken habitat. Mesquite can be a difficult species to control and in order to restore the bird's habitat, both live and still-standing dead mesquite must be removed.

**Funding Source:** EQIP

**LPCI Targeting:** Lesser prairie-chickens do not use habitat areas with visual obstructions. Researchers observe a strong intolerance to vertical structure in areas with as little as 2 percent canopy cover. Mesquite has decreased potential habitat in Texas and New Mexico. While progress has been made in controlling woody species, there has not been the ability to focus efforts where the greatest potential biological return can be realized. LPCI refinement will be achieved by targeting mesquite within FACZs that contain less than 5 percent canopy cover, with a further priority placed on acres with 1.5 to 2 percent canopy cover. Additional focus will be placed on controlling mesquite on specific ecological sites that were ranked by state biologists and range conservationists for their ability to provide suitable habitat. Removing mesquite from these lands has the potential to exhibit the highest positive impact to lesser prairie-chicken per dollar invested.



**Removing Invasive Mesquite.** NRCS and conservation partners are working to remove invasive mesquite, which degrades grassland and prairie ecosystems.



**Opening Rangeland.** Research shows lesser prairie-chickens avoid grasslands and prairie where mesquite is invading the landscape. Photo by Charles Dixon.

**FY16-18 Strategy Refinement:** This three-year strategy will greatly refine delivery of mesquite control by incorporating new targeting approaches to maximize resulting outcomes. Newly created mesquite mapping tools provide the opportunity to effectively target resources to acres where lower infestations will allow a quicker return on investments. The strategy will also scale up control efforts, resulting in a projected removal of 52,600 acres of early successional mesquite in three years, an amount equivalent to nearly one-third the total threat of the shinnery oak ecoregion.

INVASIVE MESQUITE	
State	Acres
Colorado	0
Kansas	0
New Mexico	15,000
Oklahoma	0
Texas	37,600
<b>TOTAL</b>	<b>52,600</b>

## CONSERVATION ACTION

### Threat Addressed: Cultivation of Grazing Lands – CRP or Native Rangeland

**Purpose and Need:** Lesser prairie-chickens require large blocks of grasslands to fulfill their life cycle needs and cultivation of grasslands reduces available habitat. In some areas, acres enrolled in the USDA’s Conservation Reserve Program (CRP) have greatly expanded the habitat and range of the lesser prairie-chicken. Failure to maintain large blocks of these habitats upon expiration of CRP contracts is a substantial concern.

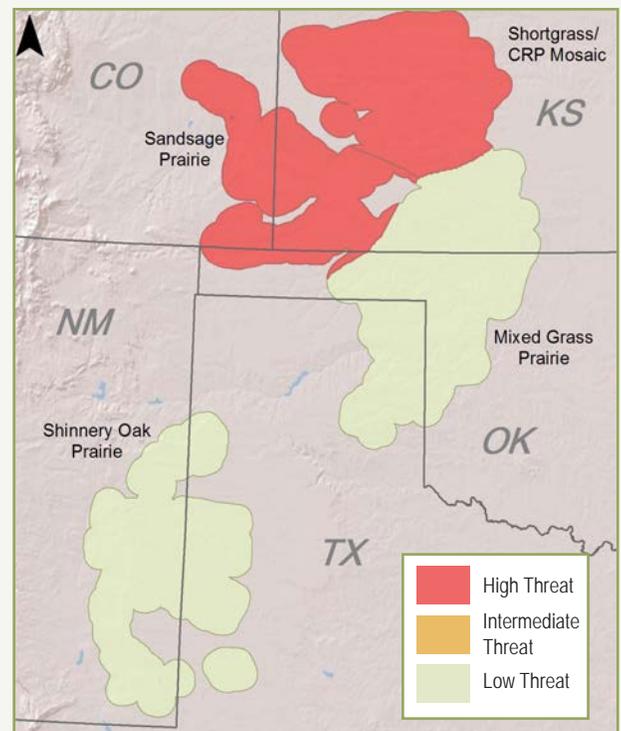
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**Priority Areas:** FACZs identified by WAFWA are used by all states to focus resources with additional targeting where higher amounts of land enrolled in CRP are expiring.

**Conservation Objective:** NRCS aims to reduce or offset the loss of expiring CRP acres to cultivation. Maintaining large unbroken expanses of grasslands suitable for lesser prairie-chicken habitat in priority areas is important to reaching and maintaining habitat acre goals.

**Funding Source:** EQIP, CSP and ACEP

**LPCI Targeting:** Lesser prairie-chickens require large blocks of grasslands to fulfill their life cycle needs, and their populations are impacted with as little as a 5 percent reduction in grasslands. NRCS is preventing cultivation of expiring CRP grasslands by assisting producers with incorporating expired CRP acres into grazing operations. Prescribed grazing plans are customized to meet the needs of both the producer and the lesser prairie-chicken, including assistance with infrastructure needed to initiate sustainable grazing. NRCS is also helping offset the loss of CRP grasslands to cultivation by working with producers to seed marginal cropland back to herbaceous vegetation. To maximize benefits, NRCS is targeting the development of grazing plans and seeding efforts in FACZs.



**Conserving Working Rangelands.** Through conservation easements and other programs, NRCS and conservation partners are conserving grassland and prairie ecosystems in priority areas where CRP contracts are expiring and where native rangelands face cultivation risks.



**Western Way of Life.** The working rangelands of the southern Great Plains are a major economic driver in the region. Photo by Quenna Terry.

**FY16-18 Strategy Refinement:** Before 2015, NRCS did not have a reasonable methodology to identify areas within FACZs that had the greatest potential for cultivation of native or CRP grasslands. New science tools have since been developed that identify acres with the highest potential to be cultivated. This information is paired with layers showing where CRP acres are soon expiring, allowing LPCI to better focus efforts in areas with the greatest potential for loss of grasslands suitable for lesser prairie-chickens.

Retention of these CRP acres with the use of sustainable grazing systems or replacement of these acres with other seeded lands will help to offset losses as CRP contracts acres expire and some are returned to cultivation. New for 2016, conservation easements will also be introduced to LPCI as an additional tool to provide long-term protection of native grasslands. Easements will be highly targeted to areas determined to be of highest importance to the bird, specifically within zone one of WAFWA's Crucial Habitat Assessment Tool (CHAT).

CRP/GRASSLAND RETENTION OR PLANTING		EASEMENTS
State	Acres	Acres
Colorado	4,041	5,000
Kansas	0	0
New Mexico	3,000	0
Oklahoma	0	0
Texas	7,500	0
<b>TOTAL</b>	<b>14,541</b>	<b>5,000</b>

## CONSERVATION ACTION

### Threat Addressed: Lack of Fire in Grassland Habitats

**Purpose and Need:** Lesser prairie-chickens require diverse grassland habitats that evolved under the interaction of fire and large herbivore grazing. Large-scale fire suppression efforts have increased fire intervals, resulting in quicker woody invasion and degradation of rangelands.

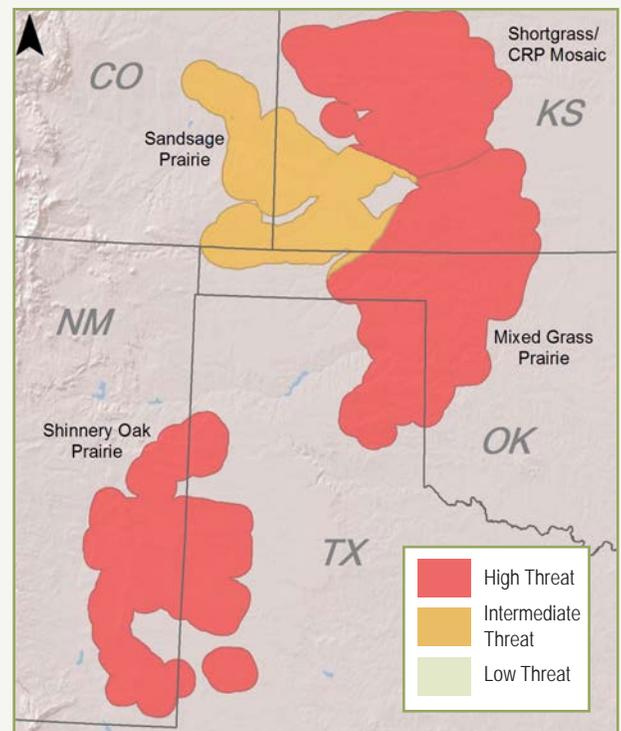
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**Priority Areas:** FACZs identified by WAFWA are used by all states to focus resources. Further focus will occur in areas previously treated for eastern redcedar.

**Conservation Objective:** To reintroduce prescribed fire to grassland and prairie ecosystems. Native plant communities throughout the range of the lesser prairie-chicken developed with fire as a natural part of the ecosystem and require periodic burns to remain healthy and diverse.

**Funding Source:** EQIP, CSP

**LPCI Targeting:** Grasslands needed by lesser prairie-chickens have been significantly impacted by the large-scale removal of fire from the ecosystem. The diverse, native plant communities simply cannot remain healthy without periodic fire for regeneration and nutrient cycling. Lack of fire has also enabled invasive woody species, such as eastern redcedar, to expand and further degrade habitat as well as reduce available forage for livestock. Efforts to reintroduce fire to grassland and prairie ecosystems has primarily occurred through working with individual producers to discuss the benefits of completing a prescribed burn on a portion of their contract acres. While these efforts have been effective in getting some prescribed burning on the ground, there has not been significant acceptance of the practice on a large scale.



**Prescribed Burning.** NRCS works with ranchers to use prescribed burning to improve the health of rangelands.



**Out of the Ashes.** The grasslands of the southern Great Plains developed as part of an ecosystem with occasional fires. Fires help improve plant diversity and the health of working rangelands. Photo by Scott Carleton.

**FY16-18 Strategy Refinement:** Efforts to reintroduce fire will focus in places where eastern redcedar control efforts have taken place in prior years and where small trees are starting to again encroach on the treated acres. These sites are perfectly suited because landowners already have a demonstrated desire to manage eastern redcedar, fire is extremely effective at controlling redcedar early in its life cycle, and prescribed fire is able to effectively control the spread of redcedar when large trees are absent. NRCS will also target lands with a low diversity of forbs and native grasses and CRP fields planted to a mixture of grasses and forbs.

PRESCRIBED BURNING	
State	Acres
Colorado	0
Kansas	7,000
New Mexico	0
Oklahoma	4,500
Texas	7,500
<b>TOTAL</b>	<b>19,000</b>



Photos by Andy Lawrence and Michael Pearce.



**Natural Resources Conservation Service**

*Helping People Help the Land*

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