

**FINAL FINDING OF NO SIGNIFICANT IMPACT  
AND  
FINAL ENVIRONMENT ASSESSMENT  
FOR THE RANGE-WIDE OIL AND GAS CANDIDATE  
CONSERVATION AGREEMENT WITH ASSURANCES  
FOR THE LESSER PRAIRIE CHICKEN  
(*Tympanuchus pallidicinctus*)**

**February 28, 2014**

**U.S. Fish and Wildlife Service  
Mountain-Prairie Region**



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**SUMMARY**

The U.S. Fish and Wildlife Service (Service) is proposing to issue an Endangered Species Act (ESA) Section 10(a)(1)(A) Enhancement of Survival Permit (Permit) upon approval of a Range-wide Oil and Gas Candidate Conservation Agreement with Assurances (Range-wide Oil and Gas CCAA) to conserve the lesser prairie chicken (*Tympanuchus pallidicinctus*; LEPC) by reducing impacts from oil and gas development and improve and expand habitat in high-priority areas. A Range-wide Oil and Gas CCAA is one of the enrollment options for the conservation strategy set forth in *The Lesser Prairie Chicken Range-wide Conservation Plan* (RWP) that was developed by the Western Association of Fish and Wildlife Agencies (WAFWA). The Permit and Range-wide Oil and Gas CCAA will have a term of 30 years and will cover oil and gas operations on non-Federal lands in Colorado, Kansas, New Mexico, Oklahoma, and Texas.

The Service evaluated the Permit issuance and Range-wide Oil and Gas CCAA implementation an Environmental Assessment (EA). Based on the analyses conducted in the EA and review of public comments, the Service has made a Finding of No Significant Impact (FONSI). The Service’s decision is to determine whether to issue the Permit to WAFWA for implementation of the Range-wide Oil and Gas CCAA as described below for the Proposed Action. That final decision will be based on the Service’s Findings and Set of Recommendations, evaluating whether the Permit would meet the issuance criteria under Section 10(a)(1)(A) of the ESA.

**ALTERNATIVE ACTIONS**

***Proposed Action — Alternative B***

The Proposed Action is the issuance of a Section 10(a)(1)(A) Enhancement of Survival Permit and implementation of a Range-wide Oil and Gas CCAA that will result in the conservation of LEPC in Colorado, Kansas, New Mexico, Oklahoma, and Texas. The Range-wide Oil and Gas CCAA uses the same impact metrics and conservation delivery system outlined in the RWP developed by WAFWA. Oil and gas companies can voluntarily enroll lands that they own, lease, or potentially lease for minerals extraction on State, private, and tribal lands. The Range-wide Oil and Gas CCAA and Permit will have a duration of 30 years and the Permit may be renewed before it expires.

WAFWA is a quasi-governmental organization of 23 public agencies charged with the protection and management of fish and wildlife resources in the western part of the United States and Canada. Development of the RWP and Range-wide Oil and Gas CCAA was a cooperative effort of fish and wildlife agencies, stakeholders, and property owners, with input and comment from the public and the Service. WAFWA applied to the Service for a Permit pursuant to Section 10(a)(1)(A) of the ESA on December 13, 2013. The Permit application included a proposed Range-wide Oil and Gas CCAA. WAFWA and participants in the CCAA (Participants) will implement conservation measures for the LEPC according to the Mitigation Framework described in the RWP to reduce and/or eliminate known threats to the LEPC within the current estimated occupied range plus a buffer of 10 miles (Covered Area) in Colorado, Kansas, New Mexico, Oklahoma, and Texas.

Enrollment or participation under the Range-wide Oil and Gas CCAA is voluntary. WAFWA will enroll cooperating Participants into the Range-wide Oil and Gas CCAA through issuance of Certificates of Inclusion (CIs). Once enrolled, in order to provide the appropriate level of threat protection and gain the coverage, Participants are obligated to implement the conservation measures in the Range-wide Oil and Gas CCAA's conservation strategy. WAFWA will provide technical assistance through which cooperating non-Federal property owners will implement conservation measures for the LEPC on Enrolled Properties (the property within the Covered Area enrolled in the CCAA and identified on all signed CIs of all Participants). In return for implementing the conservation measures, the Service will provide the enrollees assurances that for the duration of the Range-wide Oil and Gas CCAA and its associated Permit, no additional conservation measures or additional land, water, or resource use restrictions beyond those voluntarily agreed to and described in the Range-wide Oil and Gas CCAA will be required by the Service should the LEPC become listed in the future, unless agreed to by the Participant.

Oil and gas development-related activities that have the potential to cause specific threats to the LEPC will be covered by the Permit. The implementation of conservation measures on Enrolled Properties are also covered under the Permit. These activities, which span the entire life cycle of oil and gas development operations, generally include, but are not limited to, the following:

- Seismic and land surveying
- Construction
- Drilling, completion, and workovers (recompletion)
- Routine operations and maintenance
- Oil and gas infrastructure remediation and restoration
- Conservation measures that avoid, minimize, and mitigate LEPC impacts regarding:
  - Habitat loss and fragmentation
  - Collision and other direct and indirect sources of mortality
  - Disturbance of breeding, nesting, and brooding activities

Additional details on the Proposed Action are found in Chapter 2 of the EA, in the RWP, and in the Range-wide Oil and Gas CCAA.

During the comment period we received concerns regarding a provision in the CCAA, adopted from the RWP, for a waiver period during the first year of implementation that was intended to provide time for WAFWA to generate offset units until March 30, 2015. During that period,

impacts from limited oil and gas development could go unmitigated for the first year of CCAA implementation. The Service became concerned that the potential of a year of unmitigated impacts combined with other ongoing impacts, the potential continuation of drought in large areas of the LEPC range, and potential continuing decline of LEPC population numbers would affect the species resiliency in a way that may prevent it from recovering even if the oil and gas impacts on enrolled properties are fully offset at the end of the year. Accordingly, the Service and WAFWA developed a strategy to allow time for WAFWA to develop offset units while still limiting the amount of unmitigated impacts to occur during the first year. The Service decided that the Permit will contain stipulations for limiting the amount of unmitigated take during any given time within the first year. WAFWA will provide results from the 2014 spring surveys to the Service by July 1, 2014. If the 2014 spring surveys indicate a 20 percent decline in the population from the 2013 population estimate (14,092 birds or less), the following limitations on take would apply: no more than 5,109 Habitat Units of unmitigated take in CHAT; 7,664 Habitat Units in CHAT 2; and 11,495 Habitat Units in CHAT 3, from the effective date of the Permit through March 30, 2015. During that period, if any take of Habitat Units is documented to be fully offset, further take of Habitat Units would be authorized, as long as the unmitigated limit of Habitat Units in each CHAT is not exceeded. The Permit will also require WAFWA to provide reports to the Service every four months after July 1, 2014, and through March 30, 2015, with documentation of the level impacted Habitat Units and credited Offset Units in each of CHATs 1-3. With these take limitations, the Service finds that potential impacts from implementation of the Range-wide Oil and Gas CCAA during the waiver period would not add to adverse effects on LEPC resiliency. When evaluating whether the Range-wide Oil and Gas CCAA meets the CCAA standard, we consider the impacts and conservation benefits of its implementation during the term of the CCAA. With the Permit conditions on the waiver period, offset of impacts on enrolled oil and gas properties after one year, and all the other anticipated conservation benefits of the Range-wide Oil and Gas CCAA over its term, we find that the waiver period would not preclude the Range-wide Oil and Gas CCAA from meeting the CCAA standard.

### ***Range-wide Oil and Gas CCAA, excluding New Mexico — Alternative C***

Alternative C includes the implementation of the Range-wide Oil and Gas CCAA throughout the range of the LEPC, with the exception of the state of New Mexico. All of the same conservation measures and regulatory assurances of the Proposed Action would be available in Colorado, Kansas, Oklahoma, and Texas, but not in New Mexico. Non-Federal property owners in New Mexico would still have the opportunity to enroll in the existing New Mexico CCAA/Candidate Conservation Agreement.

### ***No Action Alternative — Alternative A***

Management of LEPC on non-Federal lands in Colorado, Kansas, New Mexico, Oklahoma, and Texas under the No Action Alternative would continue under existing conservation programs. The Service would not enter into a CCAA with property owners, beyond those CCAAs already in existence, and no incidental take would be authorized beyond the authorized incidental take already in existence. Under the No Action Alternative, non-Federal property owners across the LEPC range would have little economic or regulatory incentive to voluntarily initiate new conservation or management activities to benefit LEPC. However, some oil and gas industry enrollment in the RWP may occur by those operators who recognize the benefits of voluntary

conservation to the species. Conservation measures above and beyond those directed by existing Federal, state, tribal, and local laws, policies, or regulations would not be implemented under a CCAA. On private lands, where the Federal or state government has limited authority to protect or direct the management of candidate species and their habitat, conservation activities would continue to be implemented entirely at the discretion of the property owner. If the LEPC were to be listed under the ESA, the take prohibitions under Section 9 of the ESA would go into effect.

Under the No Action Alternative, as with other alternatives, oil and gas operators and property owners would have the option of enrolling in the RWP through a WAFWA Certificate of Participation (WCP). If the LEPC were listed, property owners, including oil and gas operators would have the opportunity to enroll in the RWP and receive ESA coverage for their activities under the 4(d) rule, if promulgated. The 4(d) rule may apply any or all of the ESA Section 10 protections to “threatened” species that automatically apply to species listed as endangered. Although receiving ESA coverage under the 4(d) rule, property owners would not receive the regulatory assurances that no additional restrictions or management activities would be required on non-Federal land provided by a CCAA under a Section 10 Permit. Without regulatory certainty, the Service anticipates that fewer property owners would enroll in the RWP. Federally listed and candidate species would benefit over the long term from conservation efforts implemented under the existing programs and the RWP. Any future proposed activities on lands not enrolled in the RWP that may affect a listed or proposed species within the Covered Area would undergo Section 7 or Section 10 consultation under the ESA.

## **ENVIRONMENTAL ASSESSMENT**

The Secretary of the Interior has delegated to the Service the authority to issue or deny a Section (10)(a)(1)(A) Permit in accordance with the ESA. The issuance of a Section (10)(a)(1)(A) Permit is a Federal action subject to National Environmental Policy Act (NEPA) compliance. Pursuant to NEPA, the Service evaluated the potential environmental effects associated with the Proposed Action of issuing the Permit and implementing the Range-wide Oil and Gas CCAA, another action alternative, and a No Action Alternative in an EA.

The Draft EA and Range-wide Oil and Gas CCAA were made available for public review for 30 days on December 18, 2013 (78 Federal Register (FR) 76639). To inform the public of the availability of the EA, the Service published and distributed letters to stakeholders and parties potentially interested in the Range-wide Oil and Gas CCAA, including tribes within the plan area; and Federal, state, and local agencies. The Service also issued a press release to media within the plan area. The EA was also available for review on the Service’s Mountain-Prairie Region Ecological Services website at <http://www.fws.gov/coloradoes/>.

The Service received 23 comment letters and emails during the comment period, which ended on January 17, 2014. All comments submitted by the public were reviewed, and responses to substantive comments are included in Appendix A of this FONSI. Appendix A also describes changes that were made to the Final EA (Appendix B) in the response to comments.

## **PUBLIC INVOLVEMENT AND AGENCY CONSULTATION**

The RWP that forms the conservation and mitigation framework for the Range-wide Oil and Gas CCAA was developed by WAFWA with considerable input and collaboration with the public; stakeholder organizations; and relevant Federal, state, and local agencies. Public involvement was comprehensive and included several opportunities for input and comment. Initial scoping

on the RWP began in Edmund, Oklahoma on June 11, 2012, with subsequent opportunities for public comment on the five drafts of the RWP released between January 2013 and October 2013.

For the Range-wide Oil and Gas CCAA, the Service also initiated government-to-government consultation with potentially affected American Indian tribes. On December 12, 2013, letters were sent to 68 tribes currently affiliated with the project area informing them of the proposed project and soliciting comments and participation in the environmental compliance process.

Compliance with Section 106 of the National Historic Preservation Act (NHPA) will be addressed on a case-by-case basis by the Participants or WAFWA, as detailed in the Range-wide Oil and Gas CCAA. Consultation with the appropriate State Historic Preservation Office will be completed prior to implementation of conservation measures with the potential to affect historic properties.

## **AVAILABILITY OF DOCUMENTS**

All final documents associated with the Range-wide Oil and Gas CCAA are available on the Mountain-Prairie Region Ecological Services website at <http://www.fws.gov/coloradoes/> or by writing the Field Supervisor, Colorado Ecological Services Field Office, 134 Union Blvd., Ste. 670, Lakewood, Colorado 80228.

## **DECISION**

The Service intends to issue an Enhancement of Survival Permit allowing WAFWA to implement the Proposed Action as described in the Range-wide Oil and Gas CCAA and Final EA. As a result of the analyses conducted in the EA and review of public comments, the Service has made this FONSI. This decision is based on a thorough review of the alternatives and their environmental consequences. Implementation of this decision entails the issuance of the Permit, including all terms and conditions governing the Permit. WAFWA and Participants will be required to adhere to the conservation measures specified in the Range-wide Oil and Gas CCAA throughout the duration of the CCAA and Permit. This FONSI documents the support used for the Service's finding, as described in the rationale below.

## **RATIONALE FOR DECISION**

The Range-wide Oil and Gas CCAA is an important mechanism for partially implementing the conservation strategy for the LEPC in the RWP. The Range-wide Oil and Gas CCAA encourages oil and gas operators to voluntarily enroll in a program of conservation measures designed to conserve the LEPC by reducing impacts and improving and expanding habitat. The Range-wide Oil and Gas CCAA incentivizes oil and gas operators to participate by providing regulatory certainty, in part through the Permit that would authorize incidental take of the LEPC associated with implementation of the Range-wide Oil and Gas CCAA should the species be listed. Issuance of the Permit also conveys the Service's assurance that it would not impose any further commitments or restrictions for the covered species on the Participants beyond those agreed upon in the Range-wide Oil and Gas CCAA, as long as the CCAA is properly implemented.

Under the Proposed Action, impacts on environmental, socioeconomic, and cultural resources on Enrolled Properties will be similar to lands enrolled under the RWP in the No Action Alternative. Range-wide Oil and Gas CCAA Participants will follow the same conservation measures and mitigations as those enrolled under the RWP. However, regulatory assurances will likely encourage a higher level of enrollment in the Range-wide Oil and Gas CCAA, thereby providing conservation benefits to a larger area than under the No Action Alternative and

existing conservation programs. Alternative C includes implementation of the Range-wide Oil and Gas CCAA in Colorado, Kansas, Oklahoma, and Texas, but not New Mexico. In New Mexico, reduction of impacts, as well as restoration and preservation of habitat for the LEPC will occur under the existing CCAA/CCA. While the benefits of Alternative C would be similar to the Proposed Action, the benefits of the New Mexico CCAA/CCA would not be as extensive because the prioritization of funding and conservation measures are concentrated in four southeastern counties with little to no enrollment of lands in the northern portion of the New Mexico range. Both the Proposed Action and Alternative C encourage the recovery and conservation of LEPC to a greater extent than the No Action Alternative, which would not provide the same level of incentive for Participants to voluntarily implement conservation measures. The Proposed Action was selected because it provides the best opportunity for participation by oil and gas operators and implementation of beneficial conservation measures to the largest area.

In order for the Service to issue a Permit, the Range-wide Oil and Gas CCAA must meet the issuance criteria set forth in 16 United States Code 1539(a)(2)(A) and (B) of the ESA. In addition, the applicant must meet all issuance criteria for the Permit contained in 50 Code of Federal Regulations (CFR) 17.22(d)(1) and 17.32(d)(1). The Service has made a determination based on the issuance criteria summarized below:

1. The taking will be incidental. The Service finds that the take of LEPC on Enrolled Properties would be incidental to otherwise lawful activities. WAFWA will implement the Range-wide Oil and Gas CCAA, and Participant activities will include implementation of conservation commitments and measures described in the Range-wide Oil and Gas CCAA on the Enrolled Properties. Incidental take authorized under the Permit includes harassment, harm, and mortality associated with the conservation measures necessary to implement the CCAA.
2. The Range-wide Oil and Gas CCAA complies with the requirements of the CCAA Policy (Service and NMFS 1999) and with the Service's *Draft Candidate Conservation Agreements with Assurances Handbook* (2003). WAFWA has developed the Range-wide Oil and Gas CCAA and Permit application pursuant to the requirements in the implementing regulations and the issuance criteria for a Permit. Conservation benefits for the LEPC from implementation of the Range-wide Oil and Gas CCAA are expected to include reduction of negative impacts, thereby reducing threats over which Participants have control; and conservation, enhancement, and/or restoration of habitat that would contribute to establishment or augmentation of and maintaining viable populations of LEPC in Colorado, Kansas, New Mexico, Oklahoma, and Texas.
3. The probable direct and indirect effects of any authorized take will not appreciably reduce the likelihood of the survival and recovery in the wild of any species. The ESA legislative history establishes the intent of Congress that this issuance criteria be identical to a regulatory finding of no "jeopardy" under Section 7(a)(2) of the Act. As a result, issuance of the Permit was reviewed by the Service according to provisions of Section 7 of the Act. In the Intra-Service Section 7 Conference Opinion, incorporated herein by reference, the Service concludes that issuance of a Permit will not jeopardize the continued existence of the LEPC or any other species. The taking associated with implementation of the Range-wide Oil and Gas CCAA will be incidental to oil and gas activities and conservation measures on Enrolled Properties and conservation practices on other lands in a Covered Area.
4. Implementation of the terms of the Range-wide Oil and Gas CCAA is consistent with applicable Federal, state, and tribal laws and regulations. The Service is unaware of any law or regulation that would prevent the implementation of the Range-wide Oil and Gas CCAA and the accompanying Permit. The Permit will include a specific condition that requires the Permit

Holder (WAFWA) to ensure compliance with any applicable state, Federal, or tribal law or regulation. Failure to comply with this term and condition can result in suspension or revocation of the Permit.

5. Implementation of the terms of the Range-wide Oil and Gas CCAA will not be in conflict with any ongoing conservation programs for species covered by the Permit. The Range-wide Oil Gas CCAA would complement ongoing conservation activities for LEPC in Colorado, Kansas, New Mexico, Oklahoma, and Texas, and would further implementation of the RWP.

6. WAFWA has shown the capability for and commitment to implementing all of the terms of the Range-wide Oil and Gas CCAA. WAFWA has shown the ability to administer the Range-wide Oil and Gas CCAA and work effectively with Participants to implement conservation commitments. The Range-wide Oil and Gas CCAA and CIs contain funding mechanisms for implementation of conservation and mitigation measures. Based on conservation measures described in the Range-wide Oil and Gas CCAA, the Service does not expect any circumstances to occur that would preclude WAFWA's funding and implementation of the Range-wide Oil and Gas CCAA.

## **THE SELECTED ALTERNATIVE WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT**

The Service has determined that the Proposed Action will not have a significant effect on the human environment considering the context and intensity of impacts (40 CFR 1508.27). This FONSI is based on the following significance criteria and effects associated with implementation of the Proposed Action.

### ***Criteria 1: Impacts that may be both beneficial and adverse: May a significant effect exist even if the agency believes that on balance the effect will be beneficial?***

**Soils.** Implementation of conservation practices, such as minimizing the number of well pads by using directional drilling, placing pipelines and transmission lines along existing disturbed corridors, controlling road access, and minimizing off-highway vehicle use will reduce adverse effects on soils. Locating oil and gas facilities to minimize and avoid new disturbances in native undisturbed prairie will contribute to protecting soil resources and LEPC habitat. Conservation measures that protect and enhance existing LEPC populations and habitat and restore degraded habitat will also protect soil resources. Implementation of conservation measures under the Range-wide Oil and Gas CCAA may have short-term minor adverse impacts on soils, but long-term effects will be minor to moderate and beneficial.

**Water Resources.** Conservation measures implemented under the Proposed Action that minimize and avoid new disturbances on native prairie and undeveloped land will benefit hydrologic processes. Habitat restoration activities will enhance and restore the function and integrity of the rangeland ecosystem and contribute to minimizing runoff and erosion and, therefore, improve water quality. Implementation of conservation measures will also contribute to maintaining natural hydrologic functions and improving water quality. Short-term minor adverse impacts on water resources are possible with implementation of conservation measures such as burying electrical lines and soil preparation for revegetation. The conservation measures under the Proposed Action will have long-term minor to moderate beneficial effects on water resources.

**Vegetation.** Implementation of conservation measures such as brush management, prescribed grazing, range planting, prescribed burning, and grassland establishment will assist with the conservation and restoration of those plant communities preferred by the LEPC. In addition, habitat fragmentation and the direct loss of suitable habitat will be reduced on Enrolled Properties and other lands where vegetation will be restored or enhanced with contributed funds. Implementation of the mitigation framework to offset remaining impacts will allow vegetation management activities to occur through a comprehensive landscape-level approach on large contiguous blocks of suitable LEPC habitat. Mitigation practices such as prescribed burning and brush management on lands included within the mitigation framework will result in the temporary alteration of vegetation, although the impacts will be substantially less than if these conservation measures were not implemented under the No Action Alternative. These practices will result in a benefit to vegetation, and LEPC habitat, over the long term. Prescribed grazing practices will be also implemented on Enrolled Properties where grazing is presently occurring and will benefit the LEPC through improved vegetation cover, structure, and forb production. Participants will have an incentive to conserve and manage plant communities for the benefit of LEPC and prevent habitat fragmentation. Overall, the conservation measures under the Proposed Action will have long-term moderate beneficial effects on vegetation.

**Listed, Proposed, and Candidate Species.** Most of the listed, proposed, and candidate species potentially occurring within the Covered Area are unlikely to occur in areas or on Enrolled Properties in the Range-wide Oil and Gas CCAA because their habitat affinities differ from those of LEPC. Species potentially occurring within LEPC habitat include Sprague's pipit (*Anthus spragueii*), Northern aplomado falcon (*Falco femoralis septentrionalis*), and black-footed ferret (*Mustela nigripes*). All three species are adversely affected by habitat fragmentation from conversion of native prairie to other uses. The effects of implementing the Range-wide Oil and Gas CCAA on all three species would be similar to the No Action Alternative. There is no critical habitat for any federally listed species in the Covered Area.

Implementation of the conservation strategy under the Proposed Action promotes the avoidance of high-quality LEPC habitat by oil and gas development because mitigation fees for development will be substantially higher in areas of high-quality habitat. The conservation of habitat within the focal areas and connectivity zones will further provide for the maintenance of large blocks of habitat needed by LEPC. The Range-wide Oil and Gas CCAA conservation strategy also provides for avoidance and minimization of disturbance to birds in occupied habitat for most oil and gas operations and provides for a reduction of threats, including collision risks, noise, and drowning.

A variety of conservation practices will be implemented under the Range-wide Oil and Gas CCAA and funded through mitigation fees that will enhance, maintain, and restore LEPC habitat. Mitigation offset units under the mitigation framework will be generated through implementing grazing management, prescribed burning, establishing native grasses and forbs on previously tilled ground, removing tall invasive shrubs, and implementing vegetation/weed control. These fees will be used to enroll landowners in contracts to implement these practices in the highest priority areas (i.e., focal areas and connectivity zones), creating large contiguous blocks of native and restored habitats benefiting all listed and candidate species.

Construction, maintenance, seismic surveys, off-road travel, and other activities associated with oil and gas development would result in disturbance of lekking behavior, breeding, and nest and brood attendance. And finally, although ultimately beneficial, conservation practices for mitigation, such as prescribed grazing, prescribed burning, brush management, and range

planting, all have the potential to result in some low levels of incidental take of LEPC through disturbance and mortality. The conservation strategy provides incentives to avoid areas of quality LEPC habitat, but also allows for impacts to occur throughout LEPC range, including focal and connectivity zones. The Range-wide Oil and Gas CCAA limits those development impacts to no more than 30 percent in focal areas and 60 percent in connectivity zones. These effects of habitat loss and fragmentation, where not avoided, would be counterbalanced by the long-term benefits of the conservation measures that are to be mitigated at a 2:1 offset to impact ratio at the same or higher quality habitat, resulting in a direct benefit for LEPC and other species in LEPC habitat in perpetuity. Implementing the mitigation strategy and conservation measures provide a long-term benefit to LEPC and other listed and candidate species in the following ways:

1. Concentrates resources for species conservation in the most important focal areas and connectivity zones, allowing for the restoration, enhancement, and maintenance of large blocks of habitat needed by LEPC.
2. Identifies areas where oil and gas development should be avoided, which also helps identify areas where development is of less concern for LEPC. This method provides oil and gas operators with the guidance they typically seek for their development planning purposes, and helps avoid conflicts over impacts on the species.
3. Provides incentives specifically for oil and gas operators to avoid impacts on LEPC, and provides mechanisms for minimizing and mitigating remaining impacts from their actions.
4. Where avoidance and minimization of such impacts are not possible, the framework described in Appendix A of the Range-wide Oil and Gas CCAA quantifies the impacts of development, quantifies the amount of mitigation necessary to fully offset the impacts, and provides additional conservation benefit in the form of permanent habitat protection and temporary contracts to implement practices to restore, enhance, and maintain habitat in high-priority areas.

Overall, impacts on listed, proposed, and candidate species under the Proposed Action will be long-term, moderate, and beneficial. For the full analyses of potential adverse effects and benefits to the LEPC, see the Service's Section 7 conference opinion on the Range-wide Oil and Gas CCAA.

**Other Wildlife.** Conservation measures such as avoiding and minimizing impacts on habitat, enhancing habitat, restoring degraded habitat, creating new habitat, limiting development, treating undesirable vegetation, minimizing traffic, avoiding activities in the early morning hours during the spring lekking and nesting season, and developing noise abatement programs will benefit wildlife in shrubland and grassland habitats. The conservation practices, such as brush removal, prescribed grazing and burning, and range planting on lands within the Covered Area will result in temporary displacement of wildlife and temporary loss of wildlife habitat, but are expected to provide a long-term benefit to wildlife in terms of improved habitat. The conservation measures implemented under the Proposed Action will be above and beyond those conservation activities currently being implemented. Overall, impacts on wildlife under the Proposed Action will be long-term, moderate, and beneficial.

**Cultural Resources.** The Service will require compliance with Section 106 of the NHPA for certain oil and gas development activities under the Range-wide Oil and Gas CCAA to minimize impacts on historic properties. Section 106 compliance for conservation measures that result in ground disturbance will be addressed on a case-by-case basis under a specific protocol provided

in the Range-wide Oil and Gas CCAA. Conservation practices that could potentially affect historic properties include brush management and removal of existing structures that are more than 50 years old. Cultural resource effects are anticipated to be negligible over the long term with compliance and mitigation measures that would be implemented under the NHPA.

**Socioeconomic Setting.** Participants in the Range-wide Oil and Gas CCAA will be required to pay enrollment and mitigation fees based on the location and nature of their development impacts. Some property owners will receive compensation on an individual basis by participating in the offset (mitigation) generation program. Implementation of the Range-wide Oil and Gas CCAA is also anticipated to improve the cost efficiency of LEPC conservation and ESA compliance throughout the Covered Area. These potential economic benefits to Participants include providing oil and gas operators with additional certainty for business planning purposes. While implementation of the Range-wide Oil and Gas CCAA may result in direct costs or benefits to individual Participants, it is not expected to measurably affect overall economic trends and activity on a broader regional scale, including agriculture and energy development. The Proposed Action is expected to result in long-term negligible benefits to socioeconomic conditions throughout the Covered Area.

**Land Use.** Existing land use on Enrolled Properties is not expected to change substantially under the Proposed Action because most oil and gas development would likely occur on these properties under the No Action Alternative. Implementation of conservation measures will require that at least 25 percent of the impact units generated by oil and gas developments will be offset with long-term habitat conservation, most likely within a LEPC population stronghold using permanent conservation easements. These easements will provide conservation of LEPC habitat. The remaining 75 percent of the offset units will be provided through term contracts (5-10 years, with options for extensions). Despite the temporary nature of individual contracts for this 75 percent, the strategy is to always have that 75 percent in conservation contracts. In other words, while some contracts may not be renewed, others will have been established to maintain the 75 percent goal. Although permanent easements are typically more desirable for long-term conservation, it is highly unlikely that enough funding would ever be available to buy permanent easements at the scale needed for the LEPC. Therefore, a moving mosaic of temporary conservation contracts would provide benefits in the absence of permanent easements beyond the 25 percent. The Proposed Action will result in long-term moderate benefits to land use and ownership.

**Prime Farmland.** Conservation measures that minimize new land disturbances and that concentrate oil and gas activities in existing areas of disturbance will reduce potential impacts on prime farmland. Habitat restoration and avoidance/minimization measures may result in some voluntary conversion of prime farmland currently used for crops to rangeland. While this will change prime farmland use, it will provide better long-term conservation of prime farmland soils and reduce the potential for wind and water erosion. No loss in prime farmland is anticipated as a direct result of the conservation measures. The Proposed Action will have long-term minor beneficial effects on prime farmland.

***Criteria 2: Degree to which effects on the quality of the human environment are likely to be highly controversial***

Impacts on LEPC and its habitat from past and future oil and gas development is a recognized concern. The RWP and Range-wide Oil and Gas CCAA were developed in response to those concerns. Development of the RWP and Range-wide Oil and Gas CCAA has been a multiyear

process with collaboration and input from a variety of stakeholders. There was considerable discussion with stakeholders throughout the process on the most suitable conservation measures and mechanism for implementation, funding, and administration of the RWP and Range-wide Oil and Gas CCAA. The Service received a variety of substantive comments on the Draft EA to which the Service responded (Appendix A) and that were considered in revisions to the Range-wide Oil and Gas CCAA and Final EA. While comments indicate differing opinions on the best approach for conserving and protecting LEPC, there is not a high level of controversy on the beneficial effects associated with the conservation measures to be implemented under the Range-wide Oil and Gas CCAA. Given the substance of public comments and changes made to the Range-wide Oil and Gas CCAA and Final EA to address concerns and fully disclose potential impacts, the Service has determined that the effects on the quality of the human environment are not highly controversial.

***Criteria 3: Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks***

The Range-wide Oil and Gas CCAA has defined conservation measures designed to benefit and conserve LEPC habitat. While implementation of these conservation measures may result in generally minor short-term effects on the human environment, the long-term effects on the human environment are expected to be beneficial. The effects on the human environment, as analyzed in the EA, are not anticipated to be highly uncertain or unique, and do not involve unknown risks. Although the Service feels that resource conditions in the project area are well known and the anticipated impacts from implementing conservation measures are understood based on the Service's experience with similar projects, an adaptive management strategy is included in the Range-wide Oil and Gas CCAA to address unanticipated impacts or potential changing conditions and emerging science. No substantial risks due to uncertain, unique, or unknown consequences on the human environment were identified.

***Criteria 4: Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration***

The Proposed Action adheres to regulations and policies for Enhancement of Survival Permits and CCAAs under the ESA Section 10(a)(1)(A) administered by the Service. The Proposed Action falls within the framework of this regulatory process and, therefore, will not establish any new precedents or principles for decisions involving significant effects on the environment.

***Criteria 5: Whether the action is related to other actions with individually insignificant but cumulatively significant impacts***

The evaluation of cumulative effects in the EA determined that habitat conservation and improvements for LEPC will provide direct and indirect cumulative benefits to soils, native vegetation, water resources, listed and threatened species, and other species of wildlife that use similar habitat. These cumulative beneficial effects will reduce threats to LEPC in the Covered Area. The Proposed Action will contribute to long-term beneficial cumulative effects on cultural resources with requirements to evaluate and protect historic properties in accordance with the NHPA. Cumulative benefits to property owners will occur with increased regulatory certainty as they conduct oil and gas-related activities. The Proposed Action will contribute to cumulative benefits to prime farmlands to the extent that disturbance to these lands is minimized and

degraded and disturbed lands are restored. No actions were identified, which in combination with the Proposed Action, would result in cumulatively significant impacts.

***Criteria 6: Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources***

Appropriate compliance and mitigation under the NHPA will be conducted when implementing actions with the potential to impact historic properties. Compliance with Section 106 of the NHPA will be addressed on a case-by-case basis by the Participants or WAFWA, as appropriate, and will be completed prior to implementation of conservation measures with the potential to affect historic properties. Negligible effects on historic properties are anticipated with compliance and mitigation measures under the NHPA implemented.

***Criteria 7: Degree to which the action may adversely affect an endangered or threatened species or its critical habitat***

Federally listed species and candidates for listing potentially affected by implementation of the Proposed Action include the LEPC (candidate); Sprague's pipit (candidate); northern aplomado falcon (endangered, experimental); and black-footed ferret (endangered, experimental). There is no designated critical habitat for any Federally listed species in the Covered Area.

Oil and development activities have the potential to adversely affect listed and candidate species as a result of direct mortality from collisions, habitat loss, habitat fragmentation, and displacement from suitable habitat. As previously discussed, the purpose of the Range-wide Oil and Gas CCAA is to implement conservation measures that would contribute to the improvement and long-term conservation of LEPC. The conservation strategy in the Range-wide Oil and Gas CCAA include specific conservation measures to eliminate and reduce threats to LEPC. Mitigation fees will fund maintenance, enhancement, and restoration activities to the benefit of LEPC. LEPC conservation actions will also benefit Sprague's pipit and northern aplomado falcon, which use similar native grassland habitat. Effects on black-footed ferrets will be negligible because there are currently no known populations in the Covered Area. The Proposed Action will have long-term beneficial effects on listed and candidate species.

***Criteria 8: Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas***

Appropriate compliance and mitigation under the NHPA will be conducted when implementing actions with the potential to impact historic properties. The Proposed Action will have long-term minor beneficial effects on prime farmland with no anticipated loss in prime farmland as a direct result of the conservation measures. No adverse impacts on park lands, wetlands, wild and scenic rivers, or ecologically critical areas were identified under the Proposed Action. Conservation measures will improve ecologically important habitat for LEPC and other wildlife.

***Criteria 9: Whether the action threatens a violation of federal, state, or local environmental protection law***

Issuance of the Permit requires that the Permittee be in compliance with all other Federal, state, and local laws, including environmental laws. Violation of any of these laws or their associated regulations may be grounds for Permit suspension or revocation.

## CONCLUSION

Based on the environmental impact analysis documented in the EA and other supporting documents, with due consideration of the nature of the public comments and consultations with other agencies, I have determined the issuance of an ESA Section 10(a)(1)(A) Enhancement of Survival Permit to the WAFWA for the purpose of implementing the Range-wide Oil and Gas CCAA to support the conservation of the LEPC is not a major Federal action that will significantly affect the quality of the human environment within the meaning of Section 102(2)(C) of the National Environmental Policy Act of 1969. Accordingly, preparation of an environmental impact statement on the Proposed Action is not required.

Environmental impacts that could occur are limited in context and intensity, with the majority of the actions having long-term beneficial effects. The Proposed Action will not have a significant effect on the quality of the human environment or cultural and natural resources, and there will be no significant effect on threatened or endangered species. No highly uncertain or controversial impacts, unique or unknown risks, or adverse cumulative effects were identified. Implementation of the Proposed Action will not violate any Federal, state, or local environmental protection laws.

Approved:

\_\_\_\_\_  
Assistant Regional Director, Ecological Services,  
Mountain-Prairie Region

Date: \_\_\_\_\_

**APPENDIX A**  
**COMMENTS AND RESPONSES ON THE DRAFT ENVIRONMENTAL**  
**ASSESSMENT FOR THE RANGE-WIDE OIL AND GAS CANDIDATE**  
**CONSERVATION AGREEMENT WITH ASSURANCES FOR THE**  
**LESSER PRAIRIE-CHICKEN**  
**(*TYMPANUCHUS PALLIDICINCTUS*)**

**INTRODUCTION**

This document, Appendix A, is a companion document to the Finding of No Significant Impact (FONSI) and includes a summary of comments from federal, State, and local government agencies and individuals, as well as responses to individual comments.

The Draft Environmental Assessment (EA) for the Range-wide Oil and Gas Candidate Conservation Agreement with Assurances for the lesser prairie-chicken (*Tympanuchus pallidicinctus*) (CCAA) was released to the public for review and comment on December 18, 2013. A 30-day comment period for the document closed on January 17, 2014. The Service received more than 250 comments from 19 individuals (primarily letters and emails) and three letters from federal, State, or local government agencies.

This Appendix addresses the substantive comments. As defined by National Environmental Policy Act (NEPA) compliance guidelines, comments are considered substantive if they:

- Question, with reasonable basis, the accuracy of the information in the document
- Question, with reasonable basis, the adequacy of the environmental analysis
- Present reasonable alternatives other than those presented in the environmental Assessment
- Cause changes or revisions in the proposal

In compliance with the spirit of the Privacy Act of 1974, it is the policy of the U.S. Fish and Wildlife Service (Service) not to publish names, addresses, or other personal information of individuals (agencies, businesses, and organizations are excluded). Rather than print every letter from individuals and redact (black out) all personal information, and because many of the comments are similar in nature, the Service has summarized the general nature of the comments received and tracked the number of individuals that expressed each general comment.

. The Service has summarized the general nature of the comments received below and tracked the number of individuals that expressed each general comment.

The Service has responded to each of the individual comments that are substantive. Where appropriate, the text of the FONSI has been revised to address comments.

## RESPONSES TO INDIVIDUAL COMMENTS

This section includes general responses to individual comments, listed by the comment number in the following table. As shown in the table, the Service tracked the number of individuals who expressed each type of comment, and responded to those that are substantive. Responses to substantive comments begin on page 12.

While the Service acknowledged comments expressing particular sentiments or concerns, those comments are not considered substantive and are not included in the responses.

It should be noted that although the CCAA incorporates parts of the Lesser Prairie Chicken Range-wide Conservation Plan (RWP), the RWP is much broader in scope. The CCAA is a separate action that applies only to oil and gas activities. Comments specific to the RWP were responded to only if they were applicable to the CCAA as well.

### *How to find Responses to Individual Comments*

- Comments are organized by topic in the following table. Each comment has a corresponding code number.
- Comment code numbers identified with bold text and a "" are considered to be substantive. Only substantive comments have responses.
- Look up the comment code for the substantive comment of interest, beginning on this page, to find the comment and the Service's response.

### *Individual Comments by Issue*

All of the comment codes used, and the number of individual comments that contained each code, are detailed in the following table. Substantive comments are indicated with **bold** text and a "" and are responded to in the following pages. The percentages represent the percentage of commenters that expressed that idea in their correspondence.

Code	Comment	Number of Comments	Percentage
<b>1000</b>	<b>Purpose and Need</b>		
1003	Comment that the CCAA is limited in scope	1	1%
<b>1101</b>	Comment that the Draft EA does not mention the Lesser Prairie-Chicken Conservation Management and Study Plan adopted by 32 Kansas counties (plan of preference)	1	1%
<b>2000</b>	<b>Alternatives</b>		
<b>2200</b>	<b>Alternative B - Range-wide Oil and Gas CCAA - Proposed Action</b>		
2201	Comment in support of the Proposed Action	6	2%
2204	Comment in support of the Proposed Action because it will facilitate industry enrollment in the RWP by providing O&G industry an enrollment option that carries a federal permit	1	<1%
2205	Comment in support of the Proposed Action because it improves O&G industry's ability to conserve LEPC using a voluntary framework	2	1%

Code	Comment	Number of Comments	Percentage
2206	Comment in support of CCAA because it allows independent producers ability to achieve goal of conserving species while providing jobs and economic growth in communities throughout habitat range	1	<1%
2207	Comment that the CCAA further precludes the need to list the LEPC	4	2%
2208	Comment that the provisions of the RWP are insufficient for LEPC recovery; questions effectiveness of plan	4	2%
2209	Comment that 2.5-mile-diameter circles around leks, recommending raptor deterrents for new electric lines are "too little, too late, too voluntary"	1	<1%
2210	Comment that there need to be significant areas where LEPC are primary (no drill pads, electric lines, rest from grazing periods)	1	<1%
2211	Comment in support of expeditious approval of CCAA, allowing for broad enrollment of lands and preclusion of need to list LEPC	4	2%
2212	Comment that all dollars generated by plan will generate funding certainty for direct net conservation benefit of LEPC and administration of plan (and not yield profit for other entities)	2	1%
2213	Comment that the Proposed Action would not impact the existing New Mexico CCAA and would provide consistent conservation delivery and assessment of impacts across the entire LEPC range	1	<1%
2214	Comment that the Service's approval of the permit will convey a clear signal to landowners and operators that they are sincere in their obligation to work with all stakeholders in conservation of LEPC	1	<1%
2215	Comment that the CCAA will provide another alternative for take assurances for the O&G industry that will encourage enrollment in the RWP	1	<1%
2216	Concern regarding CCAAs proposed term of 30 years given perilous status of LEPC	2	1%
2217	Concern that voluntary measures in CCAA are inefficient		
2400	<b>Conservation Measures and Monitoring</b>		
2402	Comment that avoidance and minimization measures are discretionary and participants can bypass conservation measures by paying a mitigation fee	1	<1%
2403	Comment that WAFWA is not directly involved in decisions involving conservation measures and the application of mitigation fees	1	<1%
2404	Comment that approach ignores the mitigation hierarchy of avoidance, then minimization, then compensatory mitigation, and/or the hierarchy is not based on proven strategies for conservation	1	<1%
2405	Comment that participants are not required to consider the biological value of disturbed habitat or attempt to avoid most sensitive habitats	1	<1%

Code	Comment	Number of Comments	Percentage
2406	Comment that the primary disincentive to avoid sensitive habitats is economic, not biological	1	<1%
2407	Comment that there is an absence of limits on amount of habitat that can be disturbed and CCAA does not explain whether this is compatible with current conservation goals for LEPC; at a minimum, CCAA should adopt interim limit on amount and type of habitat disturbance	2	1%
2408	Comment that mitigation has not been documented to increase species' abundance in the long term; this treats all habitat as equivalent and assumes mitigation can recreate functionality of lost habitat	1	<1%
2409	Comment that the Service should consider which habitats must remain intact for conserving species because likelihood of effectively mitigating impacts in those areas is not high (e.g., shinnery oak ecoregion)	1	<1%
2410	Comment that some of the most important required measures are ambiguous or diluted with qualifiers	1	<1%
2411	Comment that proposed mitigation strategy ratio (1/4 habitat offset units vs. 3/4 for short-term contracts) is troubling because majority of impacts from development would be permanent	1	<1%
2412	Comment that there is no adequate peer-reviewed publication or empirical data to support 25/75 ratio (not indicated as substantive because addressed in Comments 2411 and 2413)	1	<1%
2413	Comment that use of term-conservation may encourage more landowners to participate, but is an obvious departure from status quo of species and is complicated by assumption that all impacts are permanent; this means new lands must be encumbered as terms expire on other lands, resulting in uncertainties regarding habitat protection	1	<1%
2414	Comment that conservation banks should be considered as a mitigation solution for LEPC as they have been used successfully for other species conservation	1	<1%
2415	Comment that monitoring reports should be provided more regularly, especially if the Service decides not to list LEPC; at least monthly	2	1%
2416	Comment that participants are likely to withdraw from CCAA if threat of listing has disappeared	1	<1%
2417	Comment that plan provides WAFWA flexibility to adjust conservation strategy through adaptive management while providing certainty for land users in cost of participation	3	1%
2418	Comment that monitoring should be rigorous and continuous but question how Service will fund monitoring	1	<1%
<b>2500</b>	<b>Oversight and Implementation of CCAA</b>		
2501	Concern that the Service will play almost no role in implementation oversight of key aspects of CCAA	1	<1%
2502	Comment that the activities covered by the draft CCAA are similar to those in multistate HCPs; not typical CCAA	1	<1%

Code	Comment	Number of Comments	Percentage
2503	Concern that the Service is not involved in the CI process; they would not have authority to terminate a CI if participant does not comply with conservation measures	3	1%
2504	Concern that the Service lacks authority to pursue compliance monitoring on-site without WAFWA's accompaniment	1	<1%
2505	Comment that the draft CCAA creates a prolonged process for resolving alleged noncompliance with required conservation measures; this allows unscrupulous participants to violate costly or burdensome conservation measures	2	1%
2506	Concern that the draft CCAA does not require WAFWA to periodically verify compliance status of any participant; and even if WAFWA were to conduct random inspections, they are unlikely to detect many instances of noncompliance because of large amount of enrolled lands (Service must revise the draft CCAA to simplify the cumbersome process for issuing a finding of noncompliance)	1	<1%
2507	Comment that administration by WAFWA will allow for flexible local control	1	<1%
2508	Comment that WAFWA will possess adequate authority to enforce implementation of plan, including mitigation requirements and permit violations	2	1%
<b>2600</b>	<b>Confidentiality Provisions</b>		
2601	Comment that confidentiality provisions in CCAA, including allowing WAFWA to retain exclusive possession of CIs, prevent or restrict Service access and oversight of the CCAA and prevent disclosure under Freedom of Information Act (FOIA)	4	2%
2606	Comment that implementation of CCAA could encounter challenges in Texas (based on recent decision by Texas Attorney General to withhold redacted copies of CIs from public under FOIA)	3	1%
2608	Comment that because WAFWA, rather than a Texas state agency, will be reviewing and approving CIs under the draft CCAA, the contents of each CI will not be subject to the confidentiality restrictions of Section 403.454. To ensure this outcome, the CCAA should change this language.	1	<1%
2609	Comment that the CCAA protects a narrow category of information as confidential, thus balancing the Service's and public's interests in transparency with participants' business interests	7	3%
2610	Comment that fee leasehold information is highly sensitive - with this information, one O&G operator could determine a competitor's business development strategies and implement similar strategies (e.g., locations of potential production opportunities)	3	1%
2611	Comment that CCAA protects leasehold information from disclosure but still allows the Service and State wildlife agencies to access and use information	3	1%

Code	Comment	Number of Comments	Percentage
2612	Comment that the CCAA appropriately recognizes that leasehold information "may" be exempt from disclosure under FOIA while not guaranteeing it is exempt from disclosure (under provision that information is submitted by a "person," or by an organization other than an agency)	4	2%
<b>2700</b>	<b>Post-Listing Enrollment</b>		
<b>2701</b>	Concern if the Service decides to allow post-listing enrollments in CCAAs, participants may amend existing CIs to enroll additional lands consistent with Service's criteria for post-listing enrollments; CCAA does not define "criteria"	1	<1%
<b>2702</b>	Comment that CCAAs are designed to incentivize conservation before listing - this should not be undermined by allowing enrollment after listing	1	<1%
<b>2703</b>	Comment that the Service should delete any references in draft CCAA to post-listing enrollment	1	<1%
<b>2704</b>	Comment that the Service should allow enrollment of new properties in the CCAA after any decision to list the LEPC	9	4%
<b>2705</b>	Comment that issuance of permit would require Section 7 consultation and compliance with NEPA over entire area covered by permit; as such, enrollment of these lands post-listing should be allowed	2	1%
<b>2800</b>	<b>Incidental Take</b>		
<b>2801</b>	Provisions on incidental take are inconsistent with requirement in other CCAAs for participant to notify Service of anticipated incidental take and is inconsistent with CCAA Handbook (should give at least 30 days' notice)	2	1%
<b>2802</b>	Disagree that it would be too difficult to detect and/or anticipate when individual LEPCs would be incidentally taken (if it is possible to identify and attempt to avoid leks, then detection of individual birds should be possible; in addition, population surveys have been conducted at a 90-percent confidence interval)	1	<1%
<b>2803</b>	Comment that claim of "best available science indicates that translocations of individual LEPCs are not effective in these situations" is irrelevant; notification still offers valuable info	2	1%
<b>2804</b>	Comment that requiring notification encourages participants to identify and avoid occupied habitat	1	<1%
<b>2805</b>	Comment that the take authorized by the permit would not appreciably reduce the LEPC's likelihood of survival or recovery in the wild	2	1%
<b>3000</b>	<b>Affected Environment and Environmental Consequences</b>		
<b>3002</b>	Comment that baseline resource data has not been adequately collected	1	<1%
<b>3004</b>	General comment that the Draft EA does not address human and natural impacts across all five states	1	<1%
<b>3005</b>	Comment that the Draft EA does not discuss that O&G leaseholders on public lands would still be required to undergo Section 7 consultation, regardless of their enrollment in the CCAA	1	<1%

Code	Comment	Number of Comments	Percentage
<b>3100</b>	<b>Socioeconomics</b>		
<b>3101</b>	Comment that the Draft EA does not address economic effects of Conservation Agreements that devalue property	1	<1%
<b>3102</b>	Comment that the Draft EA does not consider impacts on local economies resulting from lands removed from O&G production for conservation activities	1	<1%
<b>3103</b>	Comment that the Draft EA does not consider potential impacts on mineral right holders of "split estates" that could result on lands whose surface water right holders do not own the mineral rights	1	<1%
<b>3104</b>	Comment that the Draft EA does not consider impacts on local populations, economies, and communities resulting from "in perpetuity" Conservation Easements proposed for focal areas	1	<1%
<b>3105</b>	Comment that the Draft EA does not contain meaningful consideration of long-term cultural, economic, or social impacts	1	<1%
<b>3106</b>	Comment that the Draft EA does not contain a minimum level of quantitative information necessary to understand economic effects of or necessity for preparation of an EIS	1	<1%
<b>3107</b>	Comment that the Draft EA does not consider economic impacts on minority/disadvantaged populations working in feedlot or meat packing operations from transferring lands from agricultural to conservation lands/habitat	1	<1%
<b>3108</b>	Comment that the Draft EA does not evaluate downstream economic impacts on rural communities from infrastructure location restrictions	1	<1%
<b>3109</b>	Comment that the Draft EA does not evaluate the positive contribution of low-cost LEPC conservation efforts at the local level	1	<1%
<b>3110</b>	Comment that the socioeconomics section does not contain references or supporting data	1	<1%
<b>3111</b>	Comment that the Draft EA does not consider decrease in property values from restrictions placed on properties through conservation easements	1	<1%
<b>3112</b>	Comment that the Draft EA does not consider tax implications resulting from lands transitioned from agricultural to LEPC habitat	1	<1%
<b>3200</b>	<b>Cultural Resources</b>		
<b>3201</b>	Comment that the Service should correct its assessment of potential impacts on cultural resources (inconsistent conclusions)	2	1%
<b>4000</b>	<b>NEPA Process</b>		
<b>4003</b>	Comment that through the preparation of the EA, the Service has accepted the applicability of NEPA and accepts mandates by Executive Orders (11514, 13352, 12372, 12630, and 12291)	1	<1%
<b>4004</b>	Comment that preparation of the EA negates the Service's position that NEPA is not necessary for listing of the LEPC under ESA	3	1%

Code	Comment	Number of Comments	Percentage
4005	Comment that NEPA was not initiated early enough in the process	1	<1%
4006	Comment that the Draft EA fails to recognize the controversial nature of the LEPC listing proposal, which would require preparation of an EIS under NEPA	1	<1%
4007	Comment that the EA supports a FONSI because issuance of the permit would not significantly impact the human environment	5	2%
4008	Comment that the Service's decision to prepare an EA is consistent with its prior determinations that EAs were appropriate for other large-scale CCAAs	3	1%
<b>4200</b>	<b>Draft EA</b>		
4203	Comment that the Draft EA must clarify that the waiver period relates to the timing of offset units generation and does not remove the requirement that offset units balance impact units	4	2%
4204	Comment that the Draft EA should clarify the assurances provided by the Service under the permit by deleting "high degree of certainty" and "considerable certainty"	2	1%
4205	Comment that the Service must remove references to "net conservation benefit" from the Final EA and instead refer to the conservation benefit required by the CCAA policy, to avoid confusion with the Service's Safe Harbor Policy	2	1%
4206	Comment that the Draft EA should correctly state participants' obligations under their CIs (a participant can only commit to implement conservation measures within his/her control)	6	2%
4207	Comment that the Final EA should clarify the impacts of a decision by the Service not to issue the permit in that without regulatory assurances, fewer property owners would enroll in the RWP	4	2%
4208	Comment that the Final EA should clarify the goals of focal areas and connectivity zones to indicate that goals do not limit development but create a threshold where remediation is required	4	2%
<b>5000</b>	<b>Other</b>		
5001	General comment opposed to issuance of permit	1	<1%
5002	General comment opposed to O&G activities; O&G activities have led to decline of LEPC	2	1%
5003	Comment that LEPC does not warrant listing under ESA	4	2%
5004	Support protection of LEPC but feel that current programs in place are adequate	1	<1%
5005	Comment that LEPC continues to expand its range and populations are increasing	1	<1%
5006	Comment that mitigations in RWP are extreme	1	<1%
5007	Comment that mitigation costs would hinder development	1	<1%
5008	Support finding ways for O&G drilling and LEPC to coexist	1	<1%
5009	Comment that decline of LEPC can be partially attributed to climate/weather	1	<1%

Code	Comment	Number of Comments	Percentage
5010	Comment that with careful monitoring, production can take place in areas of LEPC habitat	1	<1%
5011	Comment for Service to stop claiming to protect wildlife and environment from those that own the land	1	<1%
<b>5012</b>	Question whether the Service will be able to enforce greater protections if LEPC populations decline further	1	<1%
5013	Comment supporting integrity, stability, and beauty of biotic community	1	<1%
<b>5014</b>	Objection to comments being sent to private email addresses, which would require submitting FOIA request, resulting in a slower more costly process	1	<1%
<b>5015</b>	Comments should be submitted through government website	1	<1%
<b>5016</b>	Comment that the Service needs to ensure there's transparency in a seemingly "rushed" project	1	<1%
5017	Comment that just because Service is part of federal government doesn't mean they have best interest of public at heart	1	<1%
<b>5018</b>	WAFWA is a quasi-governmental body with no regulatory authority	1	<1%
<b>5019</b>	Comment that WAFWA members are not appointed but are associated as a result of their position in a member state's agency. In Kansas's case, the secretary of the State's wildlife agency is appointed by the governor. In this case, the secretary has not been directly involved in the development of the five-state plan, and injustice in implementation of plan could only be addressed through the governor's office.	1	<1%
5020	Comment supporting collaboration of private industries and public agencies	1	<1%
5021	Comment that O&G development does not adversely impact the LEPC	6	2%
5022	Comment that the CCAA provides a mechanism to implement the RWP, which would provide population and habitat goals to conserve LEPC; promote avoidance and minimization of impacts on LEPC and its habitat, and require robust mitigation; and create incentives for maintenance, restoration, and preservation of LEPC habitat	2	1%
<b>5023</b>	Comment requesting the Service extend the final listing decision date to allow maximum participation in conservation efforts	1	<1%
<b>5024</b>	General, editorial comment; factual corrections	15	6%
5025	Comment that habitat destruction, fragmentation, and degradation remain the greatest threats to the continuing existence of the LEPC	1	<1%
<b>5026</b>	Comment that the New Mexico CCA and CCAA have had no measurable effect on LEPC populations; in addition, they have generated more funds than they have useful projects to support	1	<1%

Code	Comment	Number of Comments	Percentage
5027	Comment that the elements for a successful LEPC recovery strategy include the following: development, adoption, and implementation of scientifically defensible policies that address recovery of population; rigorous range-wide monitoring of populations and scientific assessment of recovery actions with results-based and rigorously monitored adaptive management strategies based on those assessments; development, implementation, and enforcement of restrictions and stipulations for habitat protection; and sustained outreach to stakeholders (including, but not limited to, public comment under NEPA)	1	<1%
<b>6000</b>	<b>Comments on Range-wide Plan that also apply to CCAA</b>		
6001	Comment that experimental conservation approaches will produce a low-cost mitigation product of lower quality than traditional conservation banking credits	1	<1%
6002	Service needs to issue a "final" version of the RWP; question regarding date of "Final (signed and endorsed) RWP"	2	1%
6003	Comment that the adaptive management process has been 'misused' because it provides WAFWA the ability to redefine objectives if unmet	1	<1%
6004	Comment that baseline population data used by WAFWA is outdated and inaccurate and calls into question much of the analysis and goals for habitat protection and restoration. Because the Service is required to make decisions based on best available science, the analysis doesn't meet ESA requirements.	7	3%
6005	Comment that LEPC populations are in rapid decline (2013 study)	5	2%
6006	Comment that one-year mitigation waiver is detrimental to LEPC; mitigation waiver should be rejected	5	2%
6007	Comment that term-conservation is experimental and could affect LEPC outcomes; conservation banks are permanent and reduce concerns that permanent impacts are not offset in the future	1	<1%
6008	Comment that habitat restoration should not be used as a source of offsets because they would expire as soon as birds are expected to return to habitat	2	1%
6009	Comment that restoration outcomes are uncertain	1	<1%
6010	Comment that permanent preservation-based strategies are the most practical rather than experimental, term-conservation	1	<1%
6011	Comment that the HEG is a good measure of grassland cover, but not a good measure of habitat. Furthermore, a direct correlation of grassland cover to LEPC populations has yet to be determined.	2	1%
6012	Comment that the Service should require metrics more specific to LEPC habitat	1	<1%

<b>Code</b>	<b>Comment</b>	<b>Number of Comments</b>	<b>Percentage</b>
6013	Comment that a balance should occur between appropriate mitigation strategies, the RWP, the proposed 4(d) Rule, and the CCAA	1	<1%
6014	Comment that Service should publish a policy that requires use of released bank credits generated under Service-approved Conservation Banking Agreements when available; if not available, RWP or Habitat Credit Exchange (HCEX) should be preferred source of offsets. This would incentivize permanent conservation, provide industry with guaranteed sources of offsets, and drive preservation purchases in the near-term.	3	1%
6015	Comment that the RWP does not list conservation goals specifically (regarding temporary contracts) and does not explain how contracts will offset impacts on habitat they are supposed to mitigate; if location of 75 percent of habitat will change every 5 to 10 years, Service cannot conclude that recovery standard would be met	1	<1%
6016	Comment that optimistic reliance on moving conservation concept is grounded less in science and more in facilitating unrestricted habitat development	1	<1%
6017	Comment that although the Service is charged with objectively evaluating all scientific information and public comment received for proposed listing of LEPC, they endorsed plan very quickly without evaluating its provisions and likelihood of success	1	<1%
6018	Comment that the RWP should be judged on its results for LEPC populations, not on its intent	1	<1%

## RESPONSES TO INDIVIDUAL COMMENTS

### **1000 – Purpose and Need**

**Comment 1101:** *Comment that the Draft EA does not mention the Lesser Prairie-Chicken Conservation Management and Study Plan adopted by 32 Kansas counties (plan of preference)*

**Response 1101:** Information on the Lesser Prairie-Chicken Conservation Management and Study Plan has been added to the EA.

### **2000 – Alternatives**

#### **2200 – Alternative B – Range-wide Oil and Gas CCAA (Proposed Action)**

**Comment 2209:** Comment that 2.5-mile-diameter circles around leks, recommending raptor deterrents for new electric lines are "too little, too late, too voluntary."

**Response 2209:** The buffers around leks and the recommendations for raptor deterrents were established based on the best available science (e.g., Pittman 2005; Robel et al. 2004; Hagen 2010; Hagen et al. 2011) and the opinion of the LEPC Interstate Working Group Science Team for the different types of impacts that affect or were believed to potentially affect LPC habitat suitability. Radio telemetry work by Pittman et al. (2005) determined that 80 percent of the nesting occurred within 0.6 mile of leks; therefore, a buffer distance of 1.25 miles of leks is anticipated to provide protection to the majority of the nesting LEPCs.

**Comment 2210:** Comment that there need to be significant areas where LEPC are primary (no drill pads, electric lines, rest from grazing periods).

**Response 2210:** As described in the Threat Avoidance, Minimization, and Mitigation Programs section of the RWP, which the CCAA incorporates, focal areas identify locations where habitat improvements are desired and impacts from development are to be avoided to benefit the conservation of LEPC. Connectivity zones are areas identified to facilitate individual movements among focal areas that will assist with maintaining genetic diversity for the species. The identification of focal areas and connectivity zones within the CHAT will inform developers of the areas of highest priority for LEPC habitat conservation and encourage development into areas where impacts on LEPC will be minimal or completely avoided.

The focal area strategy and associated connectivity zones and strongholds in the RWP (see pages 72-90 in the RWP) were developed by the IWG science team to identify areas of high-quality habitat that should be conserved. This strategy also incorporates priorities for which habitats are targeted for avoidance where possible. Participants are incentivized to manage for quality habitat because their mitigation fees are based on the acreage and HEG (habitat quality) score of the enrolled property. The habitat goals for focal areas and connectivity zones defined in the Focal Area Strategy section are no more than 30 percent development impacts in focal areas and 60 percent in connectivity zones. In addition, the RWP has a goal of providing a stronghold in each ecoregion within 10 years of implementation of the RWP. Each stronghold will provide a minimum of 25,000 acres of high-quality habitat, or up to 50,000 acres if in lower

quality habitat, and should contain at least 6 to 10 leks each, with at least 6 males/lek. Within the shinnery oak ecoregion, six potential strongholds have been identified. This goal will be evaluated every five years through adaptive management and, if appropriate, the percentage of offset units going toward permanent conservation will be adjusted to meet this goal.

**Comment 2216:** Concern regarding CCAAs proposed term of 30 years given perilous status of LEPC.

**Response 2216:** A 30-year term for a range-wide CCAA is appropriate because it is designed to provide overall conservation benefits to the species over that duration. In developing the RWP, WAFWA identified the need for a long-term plan to provide comprehensive, persistent, and long-term conservation across the entire range. Population objectives are identified on a 10-year basis and would be evaluated through the adaptive management process throughout the 30 years. The adaptive management process incorporates monitoring and new information into future adjustments to maximize the conservation of LEPC. Under adaptive management, the mitigation and conservation activities implemented under the RWP will be monitored to identify whether they are producing the required results. Some of the factors that will be evaluated regularly (either annually or every five years) include LEPC population sizes, progress toward habitat goals, conservation practice costs, avoidance of high-priority conservation areas, and management prescriptions. If these elements have not met their specified goal(s), adjustments would be made to practices, offset ratios, fee structure, and other elements, as appropriate.

**Comment 2217:** Concern that voluntary measures are inefficient.

**Response 2217:** The CCAA's conservation measures, as outlined in the RWP, are identified as required or discretionary, depending on the nature of the measure. Mitigation fees are mandatory and will play the largest role in securing offsets for impact and additional conservation benefits to the species at a 2:1 ratio of conserved to impacted habitat of the same or higher quality in the focal and connectivity areas. Although contracts with landowners to implement conservation practices for offsetting impacts and providing additional conservation are voluntary, many voluntary landowner programs have shown success for habitat conservation. Furthermore, landowners will be paid to participate, and as of this writing ranchers and farmers have applied to WAFWA to enroll 330,000 acres for contracts to implement conservation practices. This high level of interest before the CCAA is even finalized demonstrates that volunteerism can play a major role in getting conservation on the ground for the LEPC. Finally, voluntary measures have been proven largely successful in Kansas with populations reoccupying historical ranges (Rodgers and Hoffman 2005).

## **2400 – Conservation Measures and Modeling**

**Comment 2402:** Comment that avoidance and minimization measures are discretionary and participants can bypass conservation measures by paying a mitigation fee.

**Response 2402:** One of the purposes of the CCAA is to “Encourage creation, enhancement and protection of suitable LEPC habitat by requiring Participants to implement certain Conservation Measures and by creating incentives for Participants to

avoid and minimize impacts to unfragmented and higher quality LEPC habitat and, where avoidance and minimization are not possible, to mitigate for impacts to LEPC habitat.” Mitigation fees were not designed as a mechanism to bypass conservation measures, but as a disincentive to develop in higher quality LEPC habitat. The fees were also calculated to fund full offset of impacts plus provide additional conservation benefits to the species at a 2:1 ratio of conserved to impacted habitat of the same or higher quality in the focal and connectivity areas. In those cases where an oil and gas Participant determines that the financial benefits of minerals extraction outweighs the mitigation fees and costs to implement minimization measures, the required mitigation fees would be used to fully offset the impacts and provide additional conservation, as described above. Even if a Participant chooses to develop in these areas, certain other impact avoidance and minimization measures would be required.

As described in the Threat Avoidance, Minimization, and Mitigation Programs section of the RWP, focal areas identify locations where habitat improvements are desired and impacts from development are to be avoided to benefit the conservation of LEPC. Connectivity zones are areas identified to facilitate individual movements among focal areas that will assist with maintaining genetic diversity for the species. The identification of focal areas and connectivity zones within the CHAT will inform developers of the areas of highest priority for LEPC habitat conservation, and encourage development into areas where impacts to LEPC will be minimal or completely avoided.

Furthermore, the Range-wide Oil and Gas CCAA incorporates the RWP’s caps on the amount of total development that can occur in focal areas and connectivity zones. No more than 30 percent of the focal areas and 60 percent of the connectivity zones can be impacted by development. If these impact levels are surpassed for an individual reporting unit, the impacts above the caps must be remediated. These caps will help ensure that sufficient habitat will remain in focal areas to sustain 75 percent of the desired population goal of 67,000 birds (the remaining 25 percent of the population goal will be provided by the remainder of the EOR+10 in the CHAT 2, 3 and 4 categories).

**Comment 2403:** Comment that WAFWA is not directly involved in decisions involving conservation measures and the application of mitigation fees.

**Response 2403:** WAFWA is directly involved in determining and administering conservation measures and mitigation fees. WAFWA would be directly involved in the pre-planning process with each potential Participant (see Pre-Project Planning section on page 106 of the RWP) and in applying the fees to generate offset units using the process described in Appendix I of the RWP.

**Comment 2404:** Comment that approach ignores the mitigation hierarchy of avoidance, then minimization, then compensatory mitigation, and/or the hierarchy is not based on proven strategies for conservation.

**Response 2404:** The CCAA does follow the avoidance, minimization, compensatory mitigation hierarchy. As described in Response 2402, the RWP’s mitigation framework, adopted by the CCAA, is structured to provide disincentives for developing in the higher quality habitats in the higher priority areas. Should an oil and gas Participant choose to develop in such an area, certain impact avoidance and minimization measures would be required. Mitigation fees would be required cover the costs of fully offsetting remaining

impacts as well as providing additional conservation benefits, as described in Response 2402.

**Comment 2405:** Comment that participants are not required to consider the biological value of disturbed habitat or attempt to avoid most sensitive habitats.

**Comment 2406:** Comment that the primary disincentive to avoid sensitive habitats is economic, not biological.

***Response 2405 and 2406:*** The economic disincentives calculated into the mitigation fees are directly tied to the biological value of the property calculated as a Habitat Evaluation Guide (HEG) (pp. 255-256 of the RWP) score of vegetation and habitat characteristics of the property, and also includes the site on the landscape (i.e., CHAT category) such that projects in CHATs 1 and 2 would have higher mitigation costs as compared to a location in the lower priority CHAT categories. This economic penalty is expected to effectively eliminate most development in areas with high biological value.

Participants are required to consider the biological value of all habitat and encouraged to avoid the most biologically sensitive areas. Through the pre-planning process, WAFWA and State wildlife agencies will provide technical assistance to oil and gas Participants to evaluate the proposed project site. These agencies will have access to additional data sources beyond those available in the CHAT, including lek data, and will provide recommendations for project site locations to reduce potential impacts to LEPC and their habitat. If avoidance and minimization cannot be completely achieved then the ramification of impacting sensitive habitats is economic and substantial.

**Comment 2407:** Comment that there is an absence of limits on amount of habitat that can be disturbed and CCAA does not explain whether this is compatible with current conservation goals for LEPC; at a minimum, CCAA should adopt interim limit on amount and type of habitat disturbance.

***Response 2407:*** There are limits on the amount of habitat that can be impacted within focal areas and connectivity zones, as defined in the focal area strategy of the RWP. No more than 30% of the focal area can have development impacts and no more than 60% of the connectivity zones can have development impacts. If these impact goals are surpassed for an individual reporting unit, remediation of that existing infrastructure would be required before moving forward with the new development. This focal area strategy described in the RWP (pages 72-90) was developed by the IWG science team to identify areas of high quality habitat that should be conserved. This strategy also incorporates priorities for which habitats are targeted for avoidance where possible. Financial incentives that include annual payment based on the acreage and HEG score of the enrolled property encourages avoiding priority habitats and managing for quality habitat.

The restrictions on the amount of development impacts that can occur within a focal area and connectivity area are consistent with the habitat goals in the RWP for these areas, which specify that each focal area should contain at least 70 percent good to high quality habitat and each connectivity zone should contain at least 40 percent good to high quality habitat.

**Comment 2408:** Comment that mitigation has not been documented to increase species' abundance in the long term; this treats all habitat as equivalent and assumes mitigation can recreate functionality of lost habitat.

***Response 2408:*** The mitigation strategies incorporate the conservation strategies used by the NRCS to improve habitat conditions for the LEPC throughout its range. Range planting and prescribed burning has been shown to increase LEPC abundance and habitat improvements. Prescribed grazing has been shown to improve cover, structure, and forage of LEPC habitat. For example, these conservation practices are identified as the primary reason for LEPC reoccupying range in Kansas. Additionally, restoration has also been shown to be successful within the sand sage ecoregion, in which LEPC have re-occupied lands on the Cimarron National Grasslands and the Comanche National Grasslands in areas that were previously farm land.

**Comment 2409:** Comment that the Service should consider which habitats must remain intact for conserving species because likelihood of effectively mitigating impacts in those areas is not high (e.g., shinnery oak ecoregion).

***Response 2409:*** See response to Comment 2407. Additionally, the focal area strategy and associated connectivity zones and strongholds in the RWP (see pages 72-90 in the RWP) were developed by the IWG science team to identify areas of high quality habitat that should be conserved. This strategy also incorporates priorities for which habitats are targeted for avoidance where possible. Participants are incentivized to manage for quality habitat because their mitigation fees are based on the acreage and HEG (habitat quality) score of the enrolled property. The habitat goals for focal areas and connectivity zones defined in the Focal Area Strategy section are no more than 30% development impacts in focal areas and 60% in connectivity zones. In addition, the RWP has a goal of providing a stronghold in each ecoregion within 10 years of implementation of the RWP. Each stronghold will provide a minimum of 25,000 acres of high quality habitat, or up to 50,000 acres if in lower quality habitat, and should contain at least 6-10 leks each, with at least 6 males/lek. Within the shinnery oak ecoregion, six potential strongholds have been identified. This goal will be evaluated every 5 years through adaptive management and, if appropriate, the percentage of offset units going towards permanent conservation will be adjusted in order to meet this goal.

**Comment 2410:** Comment that some of the most important required measures are ambiguous or diluted with qualifiers. [Example: The requirement to bury new power distribution lines within 1.25 mi of leks active within the previous 5 years can be overridden by obtaining approval for an exemption from WAFWA. Another example is the large number of activities that are authorized because they qualify as "emergency operations." These activities "may include, but are not limited to...well problems requiring a workover to make a well productive again...and unplanned construction and maintenance activities," neither of which appears to be a genuine emergency.]

***Response 2410:*** Avoidance and minimization measures provide the flexibility necessary to encourage the most effective and efficient conservation measures based on site-specific conditions and the specific impacts and threats related to the oil and gas activity. For example; the avoidance measure to bury new distribution lines within 1.25 mi of active leks is a requirement of the CCAA. Circumstances may exist, such as crossing protected cultural or environmental resources, soils and geological (i.e.,

bedrock is exposed or close to the surface) considerations, existing buried infrastructure, hazardous sites, etc. that would prevent burying distribution lines. In any of these instances, justification must be provided to and approval obtained from WAFWA.

The CCAA has been revised to define emergency operations as those activities unexpectedly and urgently required to prevent or address immediate threats to human health, safety, or property; the environment; or national defense or security.

**Comment 2411:** Comment that proposed mitigation strategy ratio (1/4 habitat offset units vs. 3/4 for short-term contracts) is troubling because majority of impacts from development would be permanent.

**Comment 2413:** Comment that use of term-conservation may encourage more landowners to participate, but is an obvious departure from status quo of species and is complicated by assumption that all impacts are permanent; this means new lands must be encumbered as terms expire on other lands, resulting in uncertainties regarding habitat protection.

***Response 2411 and 2413:*** Certainty in habitat protection is provided in the concept of focal (core) areas. This concept as applied to LEPC is based on identifying the areas of greatest importance to the species, and focusing habitat enhancement, maintenance, conservation, and protection in these areas, including areas identified as strongholds. Although 75 percent of offsets units are within short-term contracts, the total number of protected areas under a combination of short-term and long-term agreements would always be the same, effectively being permanent. Funding for mitigation will be held within a permanent non-wasting endowment that provides for restoration and management in perpetuity.

**Comment 2414:** Comment that conservation banks should be considered as a mitigation solution for LEPC as they have been used successfully for other species conservation.

***Response 2414:*** The CCAA does not preclude conservation banks as a mitigation tool.

**Comment 2415:** Comment that monitoring reports should be provided more regularly, especially if the Service decides not to list LEPC; at least monthly.

***Response 2415:*** WAFWA will provide bi-annual reports to the Service for the first 3 years of the completed CCAA. The bi-annual reports will describe more of the administrative achievements of the CCAA, such as the acres and number of enrolled properties and landowner conservation contracts. Annual monitoring reports are sufficient for subsequent years. According to the *Draft Candidate Conservation Agreements with Assurances Handbook* (Service 2003), “federal permitting regulations (50 CFR 13.45) require annual reports unless otherwise specified by the permit...Annual reports may not be necessary for all CCAAs, but reporting should be frequent enough to allow the Service to track the implementation of the CCAA.” .

**Comment 2416:** Comment that Participants are likely to withdraw from CCAA if threat of listing has disappeared.

***Response 2416:*** CCAAs are voluntary by nature and property owners choose to participate after weighing the desire for conserving the species, the desire for assurances, and the risk and regulatory consequences of listing. 2500 – Oversight and Implementation of CCAA

**Comment 2501:** Concern that the Service will play almost no role in implementation oversight of key aspects of CCAA.

**Comment 2502:** Comment that the activities covered by the draft CCAA are similar to those in multistate HCPs, not typical CCAA.

**Comment 2503:** Concern that because the Service is not involved in the CI process, they would not have authority to terminate a CI if participant does not comply with conservation measures.

**Comment 2506:** Concern that the draft CCAA does not require WAFWA to periodically verify compliance status of any participant; and even if WAFWA were to conduct random inspections, they are unlikely to detect many instances of noncompliance because of large amount of enrolled lands (Service must revise the draft CCAA to simplify the cumbersome process for issuing a finding of noncompliance).

***Response 2501, 2502, 2503, and 2506:*** The Service will retain oversight authority of the CCAA and Incidental take permit (ITP). General permit regulations 50 CFR 13.50 explains that the permit holder assumes liability for and responsibility for the conduct of any activity conducted under the authority of such permit. Therefore, WAFWA assumes the responsibility for ensuring CI compliance and suspending or revoking a CI, if necessary. If WAFWA does not fulfill that responsibility, it risks suspension or revocation of the permit by the Service.

For the implementation of conservation activities, the Service has entrusted WAFWA for the day-to-day administration, monitoring, and other activities associated with the CCAA, as is typical for most CCAAs. However, the Service holds overall responsibility and authority over compliance with the ITP and requirements of the CCAA.

In addition, the CCAA contains provisions for WAFWA to notify the Service when any compliance issue arises. The Service would be further notified through each step of the compliance resolution process and can determine if and when it is appropriate to participate in the process. .

**Comment 2504:** Concern that the Service lacks authority to pursue compliance monitoring on-site without WAFWA's accompaniment.

***Response 2504:*** The CCAAs' provision for WAFWA to accompany the Service on any onsite monitoring visits does not preclude the ability of the Service to conduct site visits when appropriate or necessary. Due to the partnership between State wildlife agencies and the Service to conserve the LEPC, the Service expects to be able to able conduct site visits where desired, as provided in Section XI(B)(15) and XI(B)(16) in the CCAA.. This approach reflects the guidance in the draft CCAA Handbook (2003) that "...monitoring should be conducted in a cooperative manner with the permittee."

**Comment 2505:** Comment that the draft CCAA creates a prolonged process for resolving alleged noncompliance with required conservation measures; this allows unscrupulous participants to violate costly or burdensome conservation measures.

***Response 2505:*** While the CCAA's compliance resolution process provides several steps, WAFWA and the Service do not expect that the entire process would be necessary for each compliance issue that may arise.

## 2600 – Confidentiality Provisions

**Comment 2601:** Comment that confidentiality provisions in CCAA, including allowing WAFWA to retain exclusive possession of CIs, prevent or restrict Service access and oversight of the CCAA and prevent disclosure under FOIA.

***Response 2601:*** The confidentiality provisions included in the CCAA are designed to protect Participants' proprietary and/or sensitive business information only. This prevents competitors from accessing and inappropriately using this information. These provisions do not supersede or preclude access to public information through any existing federal, state and local laws and mechanisms. The Service will have access to all relevant documentation through a password-protected website, in addition to access to enrolled properties upon request. If a situation of noncompliance or a question regarding performance arises, the Service retains the ability to intervene accordingly.

**Comment 2608:** Comment that because WAFWA, rather than a Texas state agency, will be reviewing and approving CIs under the draft CCAA, the contents of each CI will not be subject to the confidentiality restrictions of Section 403.454. To ensure this outcome, the CCAA should include this language.

**Comment 2610:** Comment that fee leasehold information is highly sensitive - with this information, one O&G operator could determine a competitor's business development strategies and implement similar strategies (e.g., locations of potential production opportunities).

***Response 2608 and 2610:*** Comment noted. The CCAA currently includes provisions to protect sensitive and confidential information.

## 2700 – Post-Listing Enrollment

**Comment 2701:** Concern if the Service decides to allow post-listing enrollments in CCAAs, participants may amend existing CIs to enroll additional lands consistent with Service's criteria for post-listing enrollments; CCAA does not define "criteria."

**Comment 2702:** Comment that CCAAs are designed to incentivize conservation before listing - this should not be undermined by allowing enrollment after listing.

**Comment 2703:** Comment that the Service should delete any references in draft CCAA to post-listing enrollment.

**Comment 2704:** Comment that the Service should allow enrollment of new properties in the CCAA after any decision to list the LEPC.

**Comment 2705:** Comment that issuance of permit would require Section 7 consultation and compliance with NEPA over entire area covered by permit; as such, enrollment of these lands post-listing should be allowed.

***Response 2701, 2702, 2703, 2704, and 2705:*** The CCAA has been revised with the following language "Currently, the FWS has not proposed and does not have any policies that provide for post-listing enrollment of a property in a CCAA. If the FWS in the future develops a policy allowing enrollment of properties in a CCAA after listing, it will consider whether to propose an amendment to this CCAA that would allow a CI to be amended to enroll New Property after listing, consistent with any potential criteria that may be developed if the FWS allows post-listing enrollments in the future."

## 2800 – Incidental Take

**Comment 2801:** Provisions on incidental take are inconsistent with requirement in other CCAAs for participant to notify Service of anticipated incidental take and is inconsistent with CCAA Handbook (should give at least 30 days' notice).

**Comment 2802:** Disagree that it would be too difficult to detect and/or anticipate when individual LEPCs would be incidentally taken (if it is possible to identify and attempt to avoid leks, then detection of individual birds should be possible; in addition, population surveys have been conducted at a 90 -percent confidence interval).

**Comment 2803:** Comment that claim of "best available science indicates that translocations of individual LEPCs are not effective in these situations" is irrelevant; notification still offers valuable info.

**Response 2801, 2802, and 2803:** For purposes of this CCAA, the FWS does not believe that a pre-take notification requirement is practicable or appropriate. Because the Conservation Measures require that Impact Activities do not occur during the LEPC breeding season (March 1-July 15), with the exception of emergency operations, the FWS expects that incidental take in the form of mortality resulting from impacts from construction activities would be minimized. Furthermore, locating LEPC when they are not on leks or locating their nests prior to impact is not practicable. Nest searching methods that are commonly used for other species of ground-nesting birds, such as walking the area to flush birds or using rope drags, are not effective for this species. Peer reviewed research efforts on the LEPC will capture birds when they are on leks using funnel traps or drop nets and use radio telemetry to find birds after the lekking season and to find nests (see Grisham et al. 2013, Hagen et al. 2009, Hagen et al. 2011, Pitman et al. 2005, Pruett et al. 2009 and others). These approaches are not a feasible for avoiding or minimizing incidental take of nesting birds related to impact activities. In addition, even if locating and capturing birds was a viable option, translocation of those birds to other locations has not proven successful in the past (Giesen 2000).

**Comment 2804:** Comment that requiring notification encourages participants to identify and avoid occupied habitat.

**Response 2804:** Participants are required to identify and incentivized to avoid occupied habitat, which begins during pre-project planning with WAFWA and State wildlife agencies. A component of this planning is conducting surveys of proposed project sites that have not been surveyed within the previous 5 years; particularly sites within focal areas, connectivity zones, or within areas identified as high probability lek habitat. Extensive surveys for leks have been conducted throughout the covered area and will continue during the life of the permit. WAFWA assists in the pre-project planning process to avoid occupied leks.

**Comment 2805:** Comment that the take authorized by the permit would not appreciably reduce the LEPC's likelihood of survival or recovery in the wild.

**Response 2805:** CCAAs are designed to provide conservation benefits to the covered species to contribute to reducing the need to list under the ESA, so jeopardy of the covered species from a CCAA is highly unlikely. The Service would complete an analysis and determine whether the species may be jeopardized in its conference opinion pursuant to Section 7 of the ESA. If in the unlikely event the Service determines that the LEPC would be jeopardized, the permit would not be issued.

### **3000 – Affected Environment and Environmental Consequences**

**Comment 3002:** Comment that baseline resource data in the EA has not been adequately collected.

**Response 3002:** Readily available and relevant baseline information and federal, State and local plans relating to human and environmental resources were reviewed and incorporated into the EA, including the extensive baseline information collected for the RWP.

**Comment 3004:** General comment that the Draft EA does not address human and natural impacts across all five states.

**Response 3004:** The EA is required to evaluate the effects of the proposed action (the issuance of the permit and implementation of the measures in the CCAA) on the natural and human environment, compared to the effects of the No Action alternative (which includes implementation of the RWP). The proposed CCAA includes a variety of conservation and mitigation measures that oil and gas operators, if enrolled, would agree to implement in order to proceed with their planned developments. It is difficult, within the scope of the NEPA analysis, to predict the number of Participants, the number of acres enrolled, location of acres to be enrolled, or the manner in which the conservation measures will be implemented across the five-state region under the CCAA. Therefore, the effects on the human and natural environment were analyzed from a qualitative, rather than quantitative perspective.

**Comment 3005:** Comment that the Draft EA does not discuss that O&G leaseholders on public lands would still be required to undergo Section 7 consultation, regardless of their enrollment in the CCAA.

**Response 3005:** The Service has added language to the Final EA clarifying that Section 7 consultation would still be required for oil and gas activities on Federal lands, that involve Federal leases, or that require other Federal authorization or funding.

### **3100 – Socioeconomics**

**Comment 3101:** Comment that the Draft EA does not address economic effects of Conservation Agreements that devalue property.

**Comment 3104:** Comment that the Draft EA does not consider impacts on local populations, economies, and communities resulting from "in perpetuity" Conservation Easements proposed for focal areas.

**Comment 3105:** Comment that the Draft EA does not contain meaningful consideration of long-term cultural, economic, or social impacts.

**Comment 3106:** Comment that the Draft EA does not contain a minimum level of quantitative information necessary to understand economic effects of or necessity for preparation of an EIS.

**Comment 3111:** Comment that the Draft EA does not consider decrease in property values from restrictions placed on properties through conservation easements.

**Comment 3112:** Comment that the Draft EA does not consider tax implications resulting from lands transitioned from agricultural to LEPC habitat.

**Response 3101, 3104, 3105, 3106, 3111, and 3112:** See response to comment 3004. Since participation in the CCAA is a voluntary, it is reasonable to assume that individual operators and affected property owners would consider changes to land value, tax

benefits, monetary compensation for easements, and other factors such as conservation of the species, in choosing whether or not to participate in the CCAA. Therefore, compared to the No Action scenario of participating under the RWP, implementation of the CCAA with voluntary participation is unlikely to result in negative economic effects to operators, property owners, or local communities. Furthermore, the CCAA would also provide incentives to landowners in LEPC range, such as mitigation fees for property owners to implement conservation measures. Some of those mitigation fees could go into the local economies if local individuals/firms are used to help implement these measures.

**Comment 3102:** Comment that the Draft EA does not consider impacts on local economies resulting from lands removed from O&G production for conservation activities.

**Response 3102:** The CCAA would rely on voluntary participation from oil and gas entities that have the potential to affect LEPC habitat with their developments. The choice as to whether or not to develop on certain lands would be solely that of the oil and gas operators. In addition, the amount of oil and gas development would not necessarily increase or decrease. The CCAA provides an avenue for Participants to minimize impacts to LEPC through co-location of infrastructure, rights-of-way, and other protective measures.

**Comment 3103:** Comment that the Draft EA does not consider potential impacts on mineral right holders of "split estates" that could result on lands whose surface water right holders do not own the mineral rights.

**Response 3103:** There are no provisions in the CCAA that would preclude mineral rights holders from accessing subsurface mineral rights on split estates. Existing Federal, State, and local laws governing mineral rights would not be affected by issuance of the Permit.

**Comment 3107:** Comment that the Draft EA does not consider economic impacts on minority/disadvantaged populations working in feedlot or meat packing operations from transferring lands from agricultural to conservation lands/habitat.

**Response 3107:** These industries are not expected to be affected by implementation of the CCAA because existing land uses on lands volunteered for conservation purposes under the CCAA are expected to continue for grazing and other agricultural purposes. The conservation practices to be implemented under voluntary contracts generally entail the use of best management practices for existing land uses that are compatible with LEPC conservation.

**Comment 3108:** Comment that the Draft EA does not evaluate downstream economic impacts on rural communities from infrastructure location restrictions.

**Response 3108:** There are no oil and gas infrastructure location restrictions included in the CCAA. Location of new development and consolidation of infrastructure is voluntary.

**Comment 3109:** Comment that the Draft EA does not evaluate the positive contribution of low-cost LEPC conservation efforts at the local level.

**Response 3109:** The existing suite of LEPC conservation efforts is summarized in the No Action alternative, and such measures may still be implemented regardless of implementation of the CCAA.

**Comment 3110:** Comment that the socioeconomics section does not contain references or supporting data.

**Response 3110:** The socioeconomics section contains references from regional economic studies and the analysis was based on a logical understanding of the implications of implementation rather than quantitative economic modeling based on speculative actions.

See also response to Comment 3101 regarding qualitative analyses.

### **3200 – Cultural Resources**

**Comment 3201:** Comment that the Service should correct its assessment of potential impacts on cultural resources and inconsistent conclusions.

**Response 3201:** The Service has revised the language in this section of the EA for consistency.

### **4000 – NEPA Process**

**Comment 4004:** Comment that preparation of the EA negates the Service's position that NEPA is not necessary for listing of the LEPC under ESA.

**Response 4004:** The decision whether to list the LEPC is a separate process from approval of the CCAA and permit issuance. The Service has undergone a separate public involvement process for the listing decision. That decision and process is outside of the scope of this EA. The need to prepare an EA for the permit decision for the CCAA is not related to the listing process.

**Comment 4005:** Comment that NEPA was not initiated early enough in the process.

**Response 4005:** According to the Council on Environmental Quality's NEPA regulations and the *NEPA: Improving Efficiency, Draft Guidance* document, "agencies must integrate the NEPA process into their planning at the earliest possible time to ensure that planning and decisions reflect environmental values, avoid delays later in the process, and anticipate and attempt to resolve potential issues." Furthermore, agencies must ensure that an EA "is prepared in conjunction with the development of the proposed action, and in time to inform the public and the decisionmaker." The development of the CCAA and the preparation of the Draft EA were both initiated in August of 2013. In addition, all public involvement activities and agency and tribal consultations under NEPA, NHPA, and other applicable regulations were adhered to in the preparation of the Draft EA.

**Comment 4006:** Comment that the Draft EA fails to recognize the controversial nature of the LEPC listing proposal, which would require preparation of an EIS under NEPA.

**Response 4006:** The listing decision is a separate process and is outside of the scope of this EA.

## 4200 – Draft EA

**Comment 4203:** Comment that the Draft EA must clarify that the waiver period relates to the timing of offset units generation and does not remove the requirement that offset units balance impact units.

**Response 4203:** The Service has revised the language pertaining to the waiver period on page 45 in the Final EA.

**Comment 4204:** Comment that the Draft EA should clarify the assurances provided by the Service under the permit by deleting "high degree of certainty" and "considerable certainty".

**Response 4204:** The Service has deleted these phrases in the Final EA.

**Comment 4205:** Comment that the Service must remove references to "net conservation benefit" from the Final EA and instead refer to the conservation benefit required by the CCAA policy, to avoid confusion with the Service's Safe Harbor Policy.

**Response 4205:** The term "net conservation benefit" is key in characterizing the level of benefits the CCAA is designed to provide to the LEPC when considered with the potential impacts. Although this term is used in considering the standard for permit issuance for the Service's Safe Harbor Program under the ESA, this program does not hold exclusive use of the term. "Net conservation benefit" is a straightforward and understandable term that clearly conveys the concept that the CCAA would provide additional benefits to the species beyond the status quo and when considering potential impacts. Therefore, the Service is retaining the use of the term in its analysis documents.

**Comment 4206:** Comment that the Draft EA should correctly state participants' obligations under their CIs that a participant can only commit to implement conservation measures within his/her control.

**Response 4206:** The phrase "assumes responsibility for implementing" has been deleted from the text in the Final EA.

**Comment 4207:** Comment that the Final EA should clarify the impacts of a decision by the Service not to issue the permit in that without regulatory assurances, fewer property owners would enroll in the RWP.

**Response 4207:** Comment noted.

**Comment 4208:** Comment that the Final EA should clarify the goals of focal areas and connectivity zones to indicate that goals do not limit development but create a threshold where remediation is required.

**Response 4208:** The text in the Final EA has been revised to clarify the goals of focal areas and connectivity zones.

## 5000 – Other

**Comment 5003:** Comment that LEPC does not warrant listing under ESA.

**Response 5003:** The listing decision is a separate process and is outside of the scope of this EA.

**Comment 5004:** Support protection of LEPC but feel that current programs in place are adequate to support protection of the species.

**Response 5004:** Most of the current conservation initiatives are administered at State levels, either through staffing of federal programs at State levels, State agency programs, or organizations that either operate within a State or align with State-level initiatives. For this reason, coordination of LEPC programs within each state is a critical part of conservation planning. Therefore, each state convened an implementation team consisting of agencies and organizations involved in delivery of LEPC programs to coordinate initiatives within each state for maximum effectiveness and efficiency in conservation delivery. These teams reviewed their current coordination, identified additional opportunities for increased coordination, and discussed how to ensure that landowners are being provided with a coordinated conservation strategy that is consistent through the currently occupied range of the LEPC. The RWP and CCAA were developed to address the need for a more coordinated conservation strategy among the five states.

**Comment 5005:** Comment that LEPC continues to expand its range and populations are increasing.

**Response 5005:** LEPC population numbers in parts of Kansas have been trending upwards but the populations range-wide have been declining, while the range is constricting and habitat is becoming fragmented. A recent WAFWA survey conducted in 2013 indicated a nearly 50 percent decline in the range-wide population of LEPC. The CCAA is a range-wide effort to provide consistent conservation to the species across its range.

**Comment 5006:** Comment that mitigations in RWP are extreme.

**Comment 5007:** Comment that mitigation costs would hinder development.

**Response 5006 and 5007:** The mitigation fees in the WAFWA delivery system are directly tied to the costs required to mitigate impacted habitat as estimated by NRCS and the impact categories and buffers are based on science and expert opinion. In addition, mitigation costs presented in the plan were reviewed and supported by stakeholders from the oil and gas industry. Participants are also incentivized to develop in areas of lower quality habitat, which helps reduce mitigation fees. Although enrollment in the CCAA is voluntary, one of the purposes of the CCAA is to provide conservation of LEPC that provides incentives for participation by the oil and gas industry. Mitigation fees in low quality habitat and low priority areas are relatively low. For example, mitigation fees for a 5-acre well pad in the sand sagebrush ecoregion in the CHAT 4 category in low-quality habitat could be \$1,336. Furthermore, a development that is contained within previously impacted habitat will result in no mitigation costs beyond the initial enrollment fees.

**Comment 5012:** Question whether the Service will be able to enforce greater protections if LEPC populations decline further.

**Response 5012:** LEPC population sizes and the CCAA's progress toward habitat goals will be monitored on a regular basis. If LEPC populations decline further, adaptive management processes using the best available science will be used to facilitate changes that will help achieve the overall goals of species conservation.

**Comment 5014:** Objection to comments being sent to private email addresses, which would require submitting FOIA request, resulting in a slower more costly process.

**Comment 5015:** Comments should be submitted through government website.

***Response 5014 and 5015:*** There is no requirement under NEPA to provide for public comment submittal through a government website.

**Comment 5016:** Comment that the Service needs to ensure there's transparency in a seemingly "rushed" project.

***Response 5016:*** The Service has ensured that adequate public involvement opportunities have been available per CEQ and DOI NEPA regulations.

**Comment 5018:** WAFWA is a quasi-governmental body with no regulatory authority.

**Comment 5019:** Comment that WAFWA members are not appointed but are associated as a result of their position in a member State's agency. In Kansas's case, the secretary of the state's wildlife agency is appointed by the governor. In this case, the secretary has not been directly involved in the development of the five-state plan, and injustice in implementation of plan could only be addressed through the governor's office.

***Response 5018 and 5019:*** The issuance of the Permit is a Federal action and the Permit Holder is responsible for full compliance with the permit. Because the Permit is issued by the Service, the Service has sole responsibility in determining the appropriate action if the Permit is out of compliance. The Permit Holder, in this case WAFWA, per 50 CFR 13.50, assumes liability and responsibility for the conduct of any activity conducted under the authority of the Permit. If compliance of a CI cannot be resolved, only the Service has the authority to determine whether to suspend or revoke the Permit

**Comment 5023:** Comment requesting the Service extend the final listing decision date to allow maximum participation in conservation efforts.

***Response 5023:*** The decision to list LEPC under the ESA is outside of the scope of this planning effort and is undergoing a separate public involvement process.

**Comment 5024:** General, editorial comment; factual corrections.

***Response 5024:*** Comments of an editorial nature or factual corrections were incorporated into the Final EA.

**Comment 5026:** Comment that the New Mexico CCA and CCAA have had no measurable effect on LEPC populations; in addition, they have generated more funds than they have useful projects to support.

***Response 5026:*** Although the New Mexico CCAA and CCA are not within the scope of this CCAA, the Service disagrees that these agreements have not benefited the LEPC. Many habitat restoration projects have occurred within the core population of LEPC in New Mexico, including emergency drought response projects. Because of the drought, the entire LEPC population across the range has declined and not all of the projects have been realized, but the addition of habitat provides refuge during the drought for nesting and brood rearing. BLM has documented both upland game birds and LEPC increasing use in restored habitats on ranches enrolled in the CCA/CCAA. The New Mexico CCA and CCAA have monthly and annual reports documenting habitat restoration projects that have been completed throughout the core LEPC range in New Mexico for the last three years.

**Comment 5027:** Comment that the elements for a successful LEPC recovery strategy include the following: development, adoption, and implementation of scientifically defensible policies that address recovery of population; rigorous range-wide monitoring of populations and scientific assessment of recovery actions with results-based and rigorously monitored adaptive management strategies based on those assessments; development, implementation, and enforcement of restrictions and stipulations for habitat protection; and sustained outreach to stakeholders (including, but not limited to, public comment under NEPA).

***Response 5027:*** The Service has concluded that the CCAA includes these elements. In a letter dated October 23, 2013, Service Director Dan Ashe endorsed the RWP (which outlines the recovery strategy incorporated by the CCAA for oil and gas activities), stating, “The *Plan* includes a strategy to address threats to the prairie-chicken throughout its range, establishes measureable biological goals and objectives for population and habitat, provides the framework to achieve those goals and objectives, demonstrates the administrative and financial mechanisms necessary for successful implementation, and includes adequate monitoring and adaptive management provisions.”

### **6000 – Comments on Range-Wide Plan**

**Comment 6001:** Comment that experimental conservation approaches will produce a low-cost mitigation product of lower quality than traditional conservation banking credits.

***Response 6001:*** The Service feels that the conservation measures and the impact metrics that calculate the mitigation fees are effective; if, however, the population and habitat goals are not being met, adaptive management processes will be initiated. All of the pieces of the mitigation framework are adaptable through the process laid out in the plan. WAFWA will be tracking progress towards the habitat and population goals spelled out in the plan. Progress will be tracked both on annually and every 5 years, depending on the element that is being evaluated and will make corrective adjustments accordingly. These adjustments can include changes to mitigation ratios, impact buffers, costing, etc.

In addition, the RWP conservation strategy is not solely dependent on mitigation to reach habitat and population goals. For impacts, it first incentivizes and requires avoidance and minimization to eliminate or reduce the magnitude of potential impacts. Furthermore, it also provides for common targeting of all State, federal, and private LEPC conservation programs to produce quality habitat in the best locations and spatial arrangement to help attain those goals. Taken as a whole, the actions will provide consistent delivery of targeted LEPC conservation actions, avoidance and minimization of impacts, and finally, sufficient mitigation to provide 2:1 conservation benefit when impacts do occur.

**Comment 6003:** Comment that the adaptive management process has been 'misused' because it provides WAFWA the ability to redefine objectives if unmet.

***Response 6003:*** As described in the Adaptive Management section of the RWP (page 116), adaptive management strategies allow for mutually agreed-upon changes to the conservation measure to occur in response to changing conditions. The adaptive management process clearly anticipates modifying strategies, based on monitoring results, to better achieve the goals and required objectives of the RWP, not changing

the objectives of the plan to meet the monitoring results. The adaptive management process for the RWP was developed by a science team of experts in wildlife and range management. The adaptive management process is based on emerging science that becomes available through the life of the plan and was based on the best scientific data and methodologies available.

**Comment 6004:** Comment that baseline population data used by WAFWA is outdated and inaccurate and calls into question much of the analysis and goals for habitat protection and restoration. Because the Service is required to make decisions based on the best available science, the analysis doesn't meet ESA regulations.

**Comment 6005:** Comment that LEPC populations are in rapid decline (2013 study).

***Response 6004 and 6005:*** The goal of the RWP is to provide a range-wide population of 67,000 birds as an annual spring average over a 10-year time frame. The reduction in the range-wide population that was observed in the 2013 survey data (i.e., 17,616 birds in 2013 down from approximately 34,000 birds in 2012)(MacDonald 2013) will not revise the overall population goal. The new data does, however, indicate that it will be more difficult to reach the 10-year average. Prior to the 2013 data, WAFWA estimate that a 9.4 increase in population numbers would be needed over the next 10 years in order to meet the 67,000 average population goal. Inclusion of the 2013 indicates that an increase of approximately 10 percent in population numbers will be needed to meet the goal. As described under Habitat Goals in the RWP (page 72), density estimates were used to derive habitat goals from the population goals. The densities used were based on past research in the different habitat types and ecoregions and were not based on current population estimates. The 10-year population average (Table 3) was used to account for the wide annual fluctuations in LEPC populations, and establish a population goal based on the 10-year average.

**Comment 6006:** Comment that one-year mitigation waiver is detrimental to LEPC; mitigation waiver should be rejected.

***Response 6006:*** In order to provide time for WAFWA to generate offset units during the first year of the CCAA, it incorporates the RWP's waiver period until March 30, 2015 in which impacts from limited oil and gas development could go unmitigated for the first year of its implementation. The Service is concerned about the potential of a year of unmitigated impacts combined with other ongoing impacts, the potential continuation of drought in large areas of the LEPC range, and potential continuing decline of LEPC population numbers. Accordingly, the Service and WAFWA developed a strategy to allow time for WAFWA to develop offset units while still limiting the amount of unmitigated impacts to occur during the first year. The Permit will contain stipulations for limiting the amount of unmitigated take during any given time within the first year. WAFWA will provide results from the 2014 spring surveys to the Service by July 1, 2014. If the 2014 spring surveys indicate a 20 percent decline in the population from the 2013 population estimate (14,092 birds or less), the following limitations on take would apply: no more than 5,109 Habitat Units of unmitigated take in CHAT; 7,664 Habitat Units in CHAT 2; and 11,495 Habitat Units in CHAT 3, from the effective date of the Permit through March 30, 2015. During that period, if any take of Habitat Units is documented to be fully offset, further take of Habitat Units would be authorized, as long as the unmitigated limit of Habitat Units in each CHAT is not exceeded. The Permit will also require WAWFA to provide reports to the Service every four months after July 1, 2014,

and through March 30, 2105, with documentation of the level impacted Habitat Units and credited Offset Units in each of CHATs 1-3.

**Comment 6007:** Comment that term-conservation is experimental and could affect LEPC outcomes; conservation banks are permanent and reduce concerns that permanent impacts are not offset in the future.

***Response 6007:*** As stated in the RWP on page 93 (*Mitigation Markets*), the need for the two-market system using short-term and long-term conservation strategies is based on LEPC biology, habitat stochasticity, and anticipation of population shifts brought on by changing climatic conditions. Unlike other grouse species, LEPC appear to be adaptable to changing habitat conditions (i.e. structure, grass species composition etc.), which can be created in a relatively short time period (within 2-8 years). WAFWA recognizes this adaptability, and expects that by coordinating conservation efforts and reducing impacts through the RWP, populations can be anchored using strongholds and be moved across the landscape using focal areas and connectivity zones. This approach emulates how metapopulations function at landscape scales by having core population areas feeding satellite populations. While satellite populations may disappear and reappear over time, core population areas maintain the species existence.

This moving conservation concept is further supported by a recent study by J.W. Bull et al. (2013) which cautions against using traditional conservation strategies involving static tools (e.g., protected areas that have fixed spatial boundaries).

**Comment 6008:** Comment that habitat restoration should not be used as a source of offsets because contracts with property owners would expire as soon as birds are expected to return to habitat.

**Comment 6009:** Comment that restoration outcomes are uncertain.

**Comment 6010:** Comment that permanent preservation-based strategies are the most practical rather than experimental, term conservation.

***Response 6008, 6009, and 6010:*** As stated in the RWP, a minimum 5-year agreement is required to enter the short-term mitigation market. However, if restoration (i.e., range planting and brush management) is a component of the management plan for the offset unit, then the minimum contract duration will be 10 years in order to allow for sufficient establishment of LEPC in restored areas. Conservation practices such as prescribed burns and grazing often improve habitat conditions in less than 5 years. Furthermore, WAFWA will evaluate the success of the conservation practices every 5 years, including the optimum habitat and vegetation structure on the offset units, and will adjust the prescription of the conservation unit in order to meet the goals for conservation practices, which are: 1) to maintain optimum habitat in 3 of 5 years when it existed at the baseline and was the desired outcome, and 2) to improve vegetation structure by 25 percent over the baseline when anticipated in the associated management plan.

Despite the temporary nature of individual contracts for this 75 percent, the strategy is to always have that 75 percent in conservation contracts. In other words, while some contracts may not be renewed, others will have been established to maintain the 75 percent goal. Although permanent easements are typically more desirable for long-term conservation, it is highly unlikely that enough funding would ever be available to buy permanent easements at the scale needed for the LEPC. Therefore, a moving

mosaic of temporary conservation contracts would provide benefits in the absence of permanent easements beyond the 25 percent.

In addition, adaptive management is in place to be able to respond and improve upon restoration results as new information becomes available.

***Comment 6011:*** Comment that the HEG is a good measure of grassland cover, but not a good measure of habitat. Furthermore, a direct correlation of grassland cover to LEPC populations has yet to be determined.

***Comment 6012:*** Comment that the Service should require metrics more specific to LEPC habitat.

***Response 6011 and 6012:*** The WAFWA HEG utilizes four consistent categorical variables to assess habitat quality, including vegetation cover, vegetation composition, presence of tall woody plant cover, and the availability of potentially suitable habitat within a 1-mile radius of the center of the evaluation unit. These variables were specifically chosen because they can accurately describe LEPC habitat quality and are not greatly affected by annual variation in weather patterns. The HEG tool was reviewed by the Science Committee of the IWG and other scientists and determined to be an appropriate index of habitat for the RWP and is also consistent with the vegetation monitoring methodology used by NRCS .

***Comment 6013:*** Comment that a balance should occur between appropriate mitigation strategies, the RWP, the proposed 4(d) Rule, and the CCAA.

***Response 6013:*** The CCAA was developed as an enrollment option for the conservation strategy set forth in the RWP, and as such, is designed to implement the goals of the RWP pertaining to oil and gas activities. The CCAA adopts the RWP's mitigation framework. The Service considered the RWP's conservation strategies in development of the proposed 4(d) rule.

***Comment 6014:*** Comment that Service should publish a policy that requires use of released bank credits generated under Service-approved Conservation Banking Agreements when available; if not available, RWP or Habitat Credit Exchange (HCEX) should be preferred source of offsets. This would incentivize permanent conservation, provide industry with guaranteed sources of offsets, and drive preservation purchases in the near-term.

***Response 6014:*** Comment Noted. The RWP was developed by the LEPC Interstate Working Group (IWG) working through WAFWA's Grassland Initiative. The IWG convened three committees that consisted of various stakeholders that were divided into a Science Committee, a Voluntary Offset/Mitigation Committee, and a Credit Trading/Conservation Banking Work Group. Decisions were made through consensus or by vote to use or encourage the best available approaches to offset impacts to meet the goals of the RWP, including bank credits.

***Comment 6015:*** Comment that the RWP does not list conservation goals specifically regarding temporary contracts and does not explain how contracts will offset impacts on habitat they are supposed to mitigate; if location of 75 percent of habitat will change every 5 to 10 years, Service cannot conclude that recovery standard would be met.

***Response 6015:*** Conservation practices include prescribed grazing, prescribed burning, range planting and brush management. Management plans will be developed for the

property by WAFWA when the land is enrolled for conservation practices. These plans will identify the anticipated habitat conditions that will result from the conservation practices. On areas where conservation practices are implemented, the goals of the conservation practices are: 1) to maintain optimum habitat in 3 of 5 years when it existed at the baseline and was the desired outcome, and 2) to improve vegetation structure by 25 percent over the baseline when anticipated in the associated management plan. Prescribed grazing and burning are expected to provide benefits to LEPC habitat in the short-term. The beneficial effects of restoration practices, such as range planting and brush management will take longer; accordingly, WAFWA has specified that contracts for these practices will be a minimum of 10 years, and can be extended for 5-year intervals.

**APPENDIX B**  
**FINAL**  
**ENVIRONMENTAL ASSESSMENT**  
**FOR THE RANGE-WIDE OIL AND GAS CANDIDATE**  
**CONSERVATION AGREEMENT WITH ASSURANCES**  
**FOR THE LESSER PRAIRIE CHICKEN**  
*(Tympanuchus pallidicinctus)*

**February 28, 2014**

*Prepared for:*

U.S. Fish and Wildlife Service  
Ecological Services  
P.O. Box 25486, DFC (MS 65412)  
Denver, Colorado 80225

*Prepared by:*

ERO Resources Corporation

1842 Clarkson Street  
Denver, Colorado 80218

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## Acronyms and Abbreviations

CCA	Candidate Conservation Agreement
CCAA	Candidate Conservation Agreement with Assurances
CFR	Code of Federal Regulations
CHAT	Crucial Habitat Assessment Tool
CI	Certificate of Inclusion
CRP	Conservation Reserve Program
EA	Environmental Assessment
EIS	Environmental Impact Statement
EMRI	Ecosystem Management Research Institute
EO	Executive Order
EOR	Estimated Occupied Range
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
IWG	Interstate Working Group
LEPC	Lesser Prairie-Chicken
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OHV	Off-highway vehicles
Permit	Section 10(a)(1)(A) Enhancement of Survival Permit
RWP	Range-wide Conservation Plan
SDL	Sand dune lizard
Service	U.S. Fish and Wildlife Service
SHPO	State Historic Preservation Officer
USC	United States Code
WAFWA	Western Association of Fish and Wildlife Agencies
WCP	WAFWA Certificate of Participation

## Glossary

**Adaptive Management** –A method for examining alternative strategies for meeting measurable biological goals and objectives and then, if necessary, adjusting future conservation management actions according to what is learned.

**Candidate Conservation Agreement with Assurances (CCAAs)** – Voluntary conservation agreements between the Service and one or more non-Federal property owners. The non-Federal property owners commit to implement mutually agreed-upon conservation measures for a proposed or candidate species. The non-Federal property owners receive assurances from the Service that additional conservation measures above and beyond those contained in the agreement will not be required and that additional land, water, or resource use limitations will not be imposed upon them should the species become listed in the future.

**Certificate of Inclusion (CI)** - A voluntary agreement between WAFWA and the Participant that establishes the terms or conditions of approval that must be adhered to for the permitted activity. Through the CI, the Participant voluntarily commits to implement or fund specific conservation actions that will reduce and/or eliminate threats to the LEPC.

**Changed Circumstances** – Changes in circumstances affecting a species or geographic area covered by the Range-wide Conservation Plan (RWP) that can reasonably be anticipated and planned for by plan developers and Service.

**Connectivity Zones** – Corridors linking focal areas to facilitate LEPC movement, and where habitat enhancement, maintenance, conservation, and protection are focused. These areas are designated as CHAT 2.

**Conservation Measures** – Measures that aim to conserve and enhance the survival of the LEPC and its habitat, as described in Section XII of the Range-wide Oil and Gas CCAA.

**Covered Activities** - Oil and gas development-related activities that have the potential to cause specific threats to LEPC. Incidental take that occurs from Covered Activities by a Participant who is adhering to the terms of the CI will be authorized under the enhancement of survival permit.

**Covered Area** – The area covered by the Range-wide Oil and Gas CCAA and by the enhancement of survival permit. The Covered Area is represented in the 2013 Crucial Habitat Assessment Tool (CHAT) (<http://kars.ku.edu/maps/sgpchat/>) as the Estimated Occupied Range plus 10 miles (EOR+10).

**Crucial Habitat Assessment Tool (CHAT)** – A geospatial tool (map) specifically designed for the LEPC that prioritizes and categorizes habitat to focus conservation activities and provides a tool for developers to assess the landscape and guide the early planning stages of project development.

**CHAT 1** – The CHAT category comprised of the focal areas for LEPC conservation. The focal areas were designated by teams in each state that prioritized and identified intact LEPC habitat. This category was defined using GIS layers such as landscape integrity models, aerial photos, soil maps, anthropogenic disturbances, land cover, and expert opinion.

**CHAT 2** - The CHAT category comprised of the corridors/connectivity zones for LEPC conservation. The corridors/connectivity zones were designated by teams in each state that prioritized and identified intact LEPC habitat. This category was defined using GIS layers such as

landscape integrity models, aerial photos, soil maps, anthropogenic disturbances, land cover, and expert opinion.

**CHAT 3** - The CHAT category comprised of predicted high-quality habitat from the lek Maxent models. Maxent is an abbreviation for maximum entropy classifier and is an ecological niche model used for describing available and potential habitat. The model uses base layers (e.g., lek, nests, Conservation Reserve Program (CRP), land cover, and abiotic site condition) to characterize that habitat on the landscape.

**CHAT 4** – The CHAT category comprised of all additional lands in the estimated occupied range for the LEPC plus 10 miles (EOR+10) which are not contained in CHAT 1, CHAT 2, or CHAT 3.

**Eligible Properties** – Non-Federal properties within the Covered Area that may be enrolled in this Range-wide Oil and Gas CCAA.

**Enhancement of Survival Permit (Permit)** – Permit issued pursuant to Section 10(a)(1)(a) of the ESA. The Permit becomes effective upon any final rule listing the LEPC. If the LEPC is listed, the Permit will provide incidental take authority for Covered Activities of Participants enrolled under the Range-wide Oil and Gas CCAA through a CI.

**Enrolled Property** – The property within the Covered Area and identified on all signed CIs of all Participants.

**Enrollment Period** – The time before the effective date of any final rule listing the LEPC as threatened or endangered under the ESA during which a Property Owner may enroll Eligible Properties in the Range-wide Oil and Gas CCAA.

**Enrollment Fees** – Fees of \$2.25 per acre a Participant is required to pay when enrolling a property in the Range-wide Oil and Gas CCAA by executing the CI.

**Flow Line** – A pipe used to conduct produced fluids and/or gas from the wellhead to processing equipment (e.g., separators or heater treaters) and to stock tanks.

**Focal Areas** – Areas of greatest importance to the LEPC where habitat enhancement, maintenance, conservation, and protection are focused. These areas are designated as CHAT 1.

**Gathering Line** – A pipe used to conduct natural gas or crude oil from a well(s), lease, or field to a common point for further transmission or processing.

**Habitat Conservation Fund Account** – An account specific to an individual Participant and maintained by WAFWA. In this account, WAFWA will maintain a Participant's Enrollment Fees, Mitigation Fees, and Remediation Units. WAFWA will also deduct Mitigation Fees from this account.

**Habitat Management Costs** - Costs calculated annually and based on current U.S. Department of Agriculture's habitat management practices costs. Those practices include prescribed grazing, prescribed burning, disking, interseeding, selected herbicide applications, and more. These costs vary by LEPC ecoregion/service area.

**Habitat Evaluation Guide (HEG)** – A rapid assessment method to assess site conditions or LEPC habitat quality (0 to 1) based on vegetation cover, vegetative composition, presence of tall woody plants, and the availability of potential habitat.

**Harass** – An intentional or negligent act or omission that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. *See* 50 Code of Federal

Regulations (CFR) § 17.3. Harass is one component of the legal definition of “take” under the ESA.

**Harm** – An act that kills or injures wildlife. Such an act may include significant habitat modification or degradation that results in injury of or death to wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. See 50 CFR § 17.3.

Harm is one component of the legal definition of “take” under the ESA.

**Impact Activities** – The construction of oil and gas pads, compressor stations, private roads (e.g., lease roads), distribution lines, and industrial buildings.

**Impact Buffers** – Defined distances around Impact Activities within which LEPC habitat is deemed impacted as a result of the Impact Activity. These buffers vary depending on the type of Impact Activity.

**Impact Unit** – A quantified measurement of impacts on LEPC habitat resulting from Impact Activities. Impact Units are a function of the number of acres impacted by an Impact Activity, the quality of the impacted LEPC habitat, and a multiplier that reflects the CHAT category where the impacts occur.

**Lek** – An area where male LEPCs gather during the mating season and engage in competitive displays to attract female LEPCs for mating.

**Mitigation Fees** – Fees a Participant is required to pay when impacts on the LEPC from Impact Activities cannot be avoided or minimized. Mitigation Fees are calculated using the process described in Appendix A of the Range-wide Oil and Gas CCAA and Exhibit B of the CI and will be applied to generate offset units.

**New Property** – Property located within the Covered Area that a Participant enrolls in the Range-wide Oil and Gas CCAA by amending its CI. A Participant may amend its CI to enroll New Property at any time before or after any decision to list the LEPC.

**Notice of Noncompliance** – A written notice from WAFWA to the Participant identifying an alleged failure to implement a mandatory avoidance or minimization Conservation Measure or to pay Mitigation Fees.

**Offset Unit** – A quantified measurement of maintenance or improvement of LEPC habitat. Offset units will be generated by enrollment of properties into short-term agreements (5 to 10 years) or long-term agreements (easements) with WAFWA in which property owners commit to implement conservation and/or habitat restoration practices to benefit the LEPC.

**Participants** – Property owners who voluntarily agree to the terms or conditions of approval described in the CI under the Range-wide Oil and Gas CCAA that must be adhered to for the permitted activity.

**Parties** – The Parties to the Range-wide Oil and Gas CCAA are the Service and WAFWA, who will administer the Range-wide Oil and Gas CCAA.

**Permit Holder** – The entity to which the enhancement of survival permit is issued by the Service. WAFWA is the Permit Holder.

**Property Owner** - Any person or entity with a fee simple, leasehold, or other property interest (including owners of water or other natural resources) sufficient to carry out the Conservation Measures described in this Range-wide Oil and Gas CCAA and the attached CI, subject to applicable state law, on non-Federal land.

**Remediation and Restoration** – For the purposes of this document, remediation and restoration means the process of restoring or reclaiming an impacted area to a natural vegetation type. A variety of management activities may be implemented to accomplish remediation and restoration, including decommissioning, removing infrastructure, and revegetating those areas affected by an Impact Activity with appropriate vegetation.

**Remediation Units** – A quantified measurement of remediation that occurs to previously impacted LEPC habitat. Remediation Units are generated when a Participant remediates impacts on LEPC habitat.

**Strongholds** – Subset of lands within focal areas. These are areas meeting the definition described by the Service in its (2012) technical white paper titled “Conservation Needs of the Lesser Prairie-chicken.” Strongholds are a much smaller component of focal areas but have the ability to provide permanent LEPC conservation areas.

**Take** - Under the ESA Section 3(18), “take” is defined as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, collecting any species protected under the ESA, or engaging in any such conduct.

**Technical Service Provider** – An entity approved by WAFWA who will carry out habitat evaluations using the HEG.

**Terminated Property** – Property removed from enrollment in the Range-wide Oil and Gas CCAA pursuant to an amendment of the CI or termination of the CI.

**Two-Week Notice** – Written notice from WAFWA to the Participant providing two weeks’ advance notice of when it plans to access the Participant’s Enrolled Property for purposes of surveying for LEPCs and its habitat suitability or monitoring compliance.

**Unforeseen Circumstances** – Changes in circumstances affecting a species or geographic area covered by a conservation plan that could not reasonably have been anticipated at the time of the conservation plan’s negotiation and development, and that result in a substantial and adverse change in the status of the covered species.

**Waiver Period** – A defined time period (until March 30, 2015) during which WAFWA’s obligation to generate offset units prior to the commencement of Impact Activities is waived. At the end of this period, WAFWA will identify whether additional offset units are necessary to mitigate the Impact Activities that occurred during the Waiver Period. If additional offset units are necessary, WAFWA and Service shall confer to identify a remedy acceptable to all Parties.

# CHAPTER 1. INTRODUCTION, PURPOSE OF, AND NEED FOR ACTION

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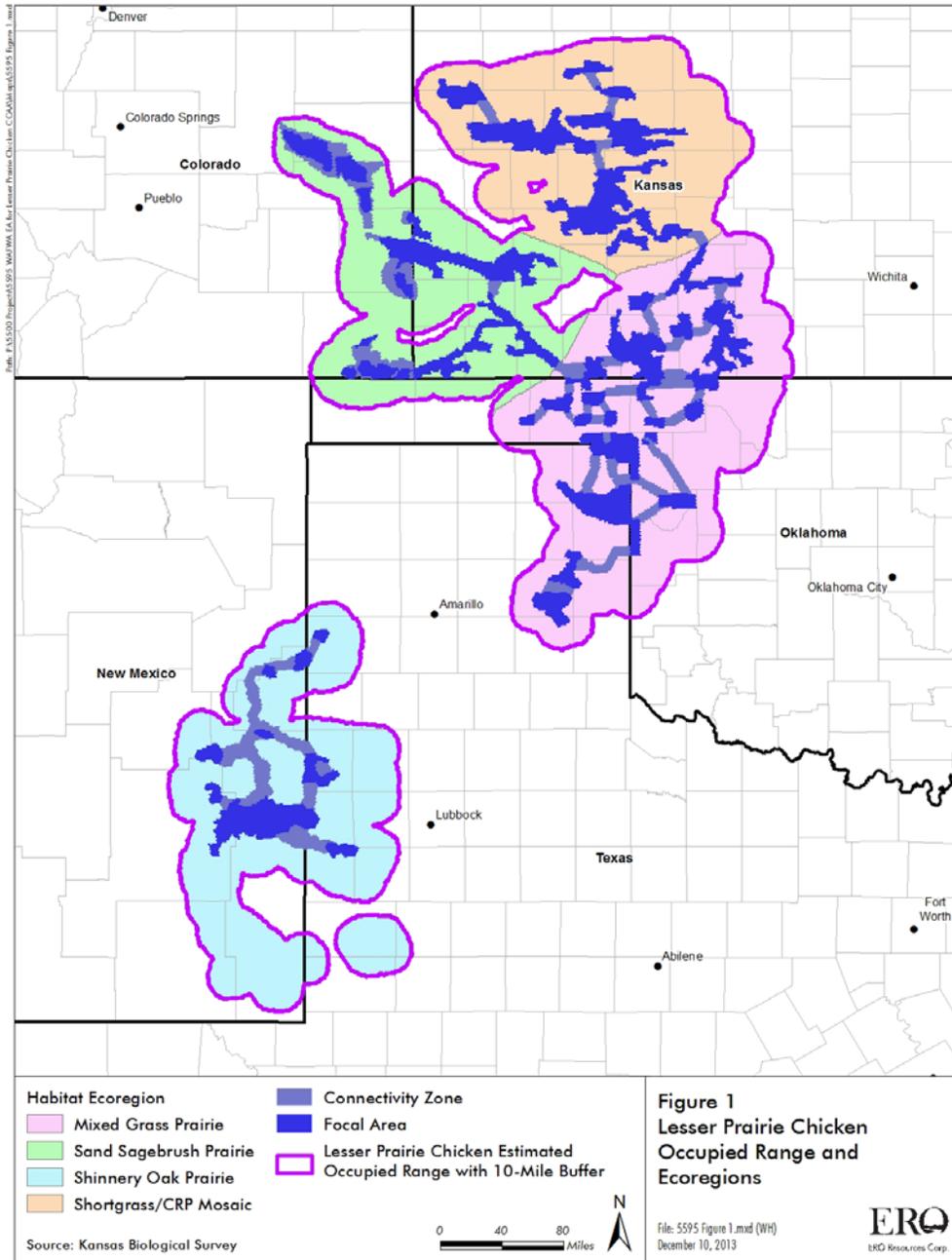
## Introduction

The U.S. Fish and Wildlife Service (Service) is proposing issuance of an Enhancement of Survival Permit (Permit) under the Endangered Species Act of 1973 (ESA), as amended (16 USC § 1531, et seq.) and implementation of a Range-wide Oil and Gas Candidate Conservation Agreement with Assurances (Range-wide Oil and Gas CCAA) to conserve and protect the lesser prairie chicken (*Tympanuchus pallidicinctus*) (LEPC) (Appendix A). LEPC habitat and historical range has diminished substantially and there is concern for its continued survival. The Service issued a proposed rule to list the LEPC as threatened on December 11, 2012 (77FR73828). The Western Association of Fish and Wildlife Agencies (WAFWA) has submitted a proposed Range-wide Oil and Gas CCAA as part of its application for the Permit. WAFWA would hold the Permit and enroll participants under the Permit through Certificates of Inclusion (CI). The proposed Range-wide Oil and Gas CCAA would allow a non-Federal property owner (Participant) to voluntarily enroll their property under the Range-wide Oil and Gas CCAA (Enrolled Property). Participants would commit to supporting conservation measures that would benefit LEPC and reduce and/or eliminate threats to this species associated with non-Federal oil and gas development. By participating in and properly implementing the Range-wide Oil and Gas CCAA, non-Federal property owners and operators would have assurances from the Service that it would not impose additional restrictions or commitments on enrolled properties or operations should the LEPC become listed? The proposed covered area of the Range-wide Oil and Gas CCAA includes non-Federal lands within the range of the LEPC, which occurs in Colorado, Kansas, New Mexico, Oklahoma, and Texas (Figure 1). The proposed duration of the Permit and Range-wide Oil and Gas CCAA is 30 years.

This Environmental Assessment (EA) describes a no action alternative (Alternative A, No Action Alternative), the Range-wide Oil and Gas CCAA alternative (Alternative B, Proposed Action), and a Range-wide Oil and Gas CCAA, excluding New Mexico (Alternative C). This EA evaluates the effects of the three alternatives on environmental, socioeconomic, and cultural resources within the Range-wide Oil and Gas CCAA covered area (Covered area) (represented in the 2013 Crucial Habitat Assessment Tool (CHAT) (<http://kars.ku.edu/maps/sgpchat/>) as the Estimated Occupied Range plus 10 miles (EOR+10)).

This EA was prepared in compliance with the National Environmental Policy Act (NEPA) and implementing regulations; (42 U.S.C. 4321 et seq.); and Department of the Interior regulations, Implementation of the NEPA. This EA assesses whether significant impacts would occur as a result of the Proposed Action or other reasonable alternatives analyzed. If the Service concludes that the Proposed Action may result in significant impacts, it would prepare an environmental impact statement (EIS). If the EA does not reach this conclusion, the Service would prepare a finding of no significant impact (FONSI).

Figure 1. Covered Area



## Purpose and Need

The purpose of the proposed Range-wide Oil and Gas CCAA is to implement conservation measures that would contribute to the improvement and long-term survival of LEPC and, if the conservation measures were also to be implemented on other necessary properties, would preclude or remove the need to list this species under the ESA. The need for the action is to encourage oil and gas operators to voluntarily enroll in the Range-wide Oil and Gas CCAA to conserve and protect LEPC by providing regulatory certainty to Participants regarding the LEPC. The regulatory certainty, under the authority of Section 10(a)(1)(A) of the ESA, entails a permit that would authorize incidental take of the LEPC associated with implementation of the Range-wide Oil and Gas CCAA should the species be listed, as well as the Service's assurance that it would not impose on Enrolled Participants, who are properly implementing the Range-wide Oil and Gas CCAA, any further commitments or restrictions for the covered species beyond those agreed upon in the Range-wide Oil and Gas CCAA. Such assurances are needed to serve as an incentive for property owners to enroll in the Range-wide Oil and Gas CCAA to implement conservation measures for the species.

## Approvals to be Made by the Responsible Official

The Service, as the responsible official, will determine whether to approve the Range-wide Oil and Gas CCAA and issue an enhancement of survival permit to WAFWA, in accordance with Section 10 of the ESA. To approve individual enhancement of survival permits, the Service must find that:

- Any take authorized by the Permit would be incidental to otherwise lawful activities and in accordance with the terms of the Range-wide Oil and Gas CCAA;
- The Range-wide Oil and Gas CCAA complies with the requirements of the Candidate Conservation Agreement with Assurances final policy (64 Federal Register (FR) 32726, June 17, 1999);
- The probable direct and indirect effects of any authorized take would not appreciably reduce the likelihood of survival and recovery in the wild of any covered species;
- Implementation of the terms of the Range-wide Oil and Gas CCAA are consistent with applicable Federal, state, and tribal laws and regulations;
- Implementation of the terms of the Range-wide Oil and Gas CCAA would not be in conflict with any ongoing conservation programs for species covered by the Range-wide Oil and Gas CCAA; and
- The signatories have shown capability for, and commitment to, implementing all of the terms of the Range-wide Oil and Gas CCAA.

## Description of the Proposed Action

The Proposed Action is the issuance of the Permit to WAFWA and implementation of a Range-wide Oil and Gas CCAA that would result in the conservation of LEPC in Colorado, Kansas, New Mexico, Oklahoma, and Texas. The Range-wide Oil and Gas CCAA is incorporates the conservation strategy set forth in *The Lesser Prairie-Chicken Range-wide Conservation Plan (RWP)* (Van Pelt et al. 2013), which was developed by the WAFWA in coordination with the Service to conserve the LEPC and its habitat for long-term sustainability. The Range-wide Oil and Gas CCAA uses the same impact metrics and conservation delivery system outlined in the

RWP. Oil and gas companies can voluntarily enroll lands that they own, lease, or potentially lease for minerals extraction on State, private, and tribal lands. The components of the Range-wide Oil and Gas CCAA are summarized below and discussed in more detail in *Chapter 2. Alternatives Including the Proposed Action*.

WAFWA is a quasi-governmental organization of 23 state and provincial fish and wildlife agencies charged with the protection and management of fish and wildlife resources in the western part of the United States and Canada. WAFWA has been a key organization in the promotion of sound resource management principles and the strengthening of Federal, state, and private cooperation in protecting and managing fish and wildlife and their habitats in the public interest. The WAFWA Board of Directors consists of leaders from western fish and wildlife agencies (<http://www.wafwa.org/index.html>).

WAFWA applied to the Service for the Permit pursuant to on December 13, 2013. The permit application included the proposed Range-wide Oil and Gas CCAA. WAFWA and the Participants would implement conservation measures for the LEPC according to the Mitigation Framework described in the RWP to reduce and/or eliminate known threats to the LEPC within the current EOR+10 in Colorado, Kansas, New Mexico, Oklahoma, and Texas.

Enrollment or participation under this Range-wide Oil and Gas CCAA is voluntary. WAFWA would enroll cooperating Participants into the CIs. Once enrolled, in order to provide the appropriate level of threat protection and gain incidental take coverage and regulatory assurances of the CI, Participants must properly implement the agreed-upon conservation measures identified in the CI. Conservation measures are intended to avoid and minimize impacts on LEPCs and their habitat, as well as mitigate any remaining habitat impacts. WAFWA would provide technical assistance through which cooperating non-Federal property owners would implement these conservation measures for the LEPC on Enrolled Properties and/or contribute funds to have conservation measures implemented in other high-priority areas. WAFWA would apply mitigation fees to securing contracts with landowners to implement LEPC conservation in these high priority areas for the necessary mitigation offset. In return for implementing the conservation measures, the Service would provide the enrollees assurances that for the duration of the Range-wide Oil and Gas CCAA and its associated Section 10(a)(1)(A) permit, no additional conservation measures or additional land, water, or resource use restrictions beyond those voluntarily agreed to and described in the Range-wide Oil and Gas CCAA would be required by the Service should LEPC become listed in the future, unless agreed to by the property owner.

## Legal and Policy Guidance

Species facing extinction are listed as either threatened or endangered and are protected under the ESA. If and when a species becomes listed under the ESA, that action triggers both a regulatory and a conservation responsibility for Federal, state, and private property owners. These responsibilities stem from Section 9 of the ESA that prohibits “take” (i.e., harass, harm, pursue, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct) of listed species. Under Section 7, Federal agencies must ensure that their actions will not jeopardize the continued existence of the listed species.

Sections 2, 7, and 10 of the ESA allow the Service to enter into this Range-wide Oil and Gas CCAA. Section 2 of the ESA states that encouraging interested parties “...through federal financial assistance and a system of incentives, to develop and maintain conservation programs

is a key to safeguarding the Nation’s heritage in fish, wildlife, and plants.” Section 7 of the ESA requires the Service to review the programs it administers and to use such programs in furtherance of the purposes of the ESA. Lastly, Section 10(a)(1)(A) of the ESA authorizes the issuance of permits for acts that would otherwise be prohibited by Section 9 if such acts are expected to enhance the propagation or survival of the affected species. By entering into this Range-wide Oil and Gas CCAA, the Service is using its Candidate Conservation Programs to further the conservation of the nation’s fish and wildlife.

To provide an incentive for voluntary conservation of species that are candidates for listing and are located on non-Federal lands, the Service adopted a final policy and regulations for CCAAs under the authority of Section 10 of the ESA (64 FR 32726). Under a CCAA, a property owner commits to implement specific conservation measures on non-Federal lands for species covered by the CCAA. In exchange, the property owner receives incidental take coverage under WAFWA’s permit and assurances from the Service that additional commitments of land, water, or finances would not be required and additional land, water, or resource use restrictions under the ESA would not be imposed on them if the species becomes listed in the future, provided the CCAA is being properly implemented. These assurances provide regulatory certainty to the enrollee regarding their activity on non-Federal lands covered by the CCAA.

## Public Participation

### *The Lesser Prairie–Chicken Range–wide Conservation Plan (RWP)*

The RWP that forms the conservation and mitigation framework for the Range-wide Oil and Gas CCAA was developed with considerable input from, and collaboration with, the public and stakeholder organizations. The development of the RWP was led by the LEPC Interstate Working Group (IWG) consisting of a representative from each of the five states supporting LEPC populations (Colorado, Kansas, New Mexico, Oklahoma, and Texas) with coordination from WAFWA and Ecosystem Management Research Institute. An initial stakeholder scoping meeting on the development of the RWP was held in Edmond, Oklahoma, on June 11, 2012. More than 90 stakeholders representing oil and gas, wind energy, and transmission industries; agriculture associations; Farm Bureau representatives; State departments of transportation; public utilities and public utilities commissions, oil and gas permitting agencies, agricultural and natural resource agencies; conservation bankers; and conservation organizations attended the meeting from across the five-state region. Steps in the development of the RWP and public involvement opportunities were as follows:

- WAFWA provided a first draft of the RWP for public input in January 2013. Input was received at public meetings held in Edmond, Oklahoma, on January 23 and 24, 2013, and input was also received through email and written letters.
- WAFWA provided a second draft of the RWP for public input in February 2013.
- WAFWA provided a third draft of the RWP to the Service and placed it on the WAFWA website for further public comment on April 1, 2013. The IWG solicited comments on the third draft of the RWP until May 15, 2013.
- WAFWA provided a fourth draft of the RWP to the Service for review and comment in September 2013. Comments were reviewed by IWG and the current RWP titled *The Lesser Prairie-Chicken Range-wide Conservation Plan* was drafted in October 2013.

- The Service endorsed the RWP in a letter to WAFWA on October 23, 2013.

A critical component of RWP development was coordination among the various agencies, organizations, industries, property owners, and other stakeholders interested in LEPC and its conservation strategy. WAFWA conducted coordination at multiple levels, including interagency coordination with Federal agencies, interagency coordination within and among states, interagency coordination between Federal and state agencies, coordination with regional organizations and industries, and general outreach and engagement of property owners and the public. The sequencing of planning components involved establishing various committees to accomplish specific tasks, then engaging broader involvement as various components of the RWP were available for review and input.

WAFWA developed the RWP by engaging agencies, organizations, industries, universities, and other stakeholders through a series of targeted meetings and through broader public input opportunities. Several working teams or committees were established to provide input to the IWG for various components of the RWP. Each state established its own implementation team to coordinate local delivery of LEPC property owner assistance programs.

A list of organizations that have been involved in development of the RWP is included in *Chapter 5. Consultation and Coordination*.

## CHAPTER 2. THE PROPOSED ACTION AND ALTERNATIVES

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### Introduction

This chapter describes the No Action Alternative (Alternative A), the Proposed Action for implementing a Range-wide Oil and Gas CCAA (Alternative B), and an alternative that implements the Range-wide Oil and Gas CCAA, excluding New Mexico (Alternative C). New Mexico has an existing CCAA and candidate conservation agreement (CCA) that currently provide conservation measures for the LEPC associated with oil and gas development. Implementation of the RWP is common to all alternatives. Also included in this chapter is a summary comparison of the environmental effects of the alternatives.

### Alternative A – No Action

Under the No Action Alternative, the status quo regarding management of LEPC on non-Federal lands would continue in Colorado, Kansas, New Mexico, Oklahoma, and Texas. No range-wide CCAA for oil and gas activities would exist. Under the No Action alternative, non-Federal property owners across the LEPC range would have little economic or regulatory incentive to voluntarily initiate new conservation or management activities to benefit LEPC. However, some oil and gas industry enrollment in the RWP may occur by those operators who recognize the benefits of voluntary conservation to the species. At this writing, 1,838,071 acres have been enrolled into the RWP by the oil and gas industry; however, that level of enrollment is largely due to industry's expectation that the enrolled lands can be transferred to the Range-wide Oil and Gas CCAA if the Permit is issued under the Proposed Alternative. Under the No Action alternative, conservation measures implemented by oil and gas operators voluntarily enrolled in the RWP would be the same as those in the Range-wide Oil and Gas CCAA. Implementation of conservation measures directed by other existing Federal, state, tribal, and local laws, policies, or regulations would continue. On private lands, where the Federal or state government has limited authority to protect or direct the management of candidate species and their habitat, conservation activities would continue to be implemented entirely at the discretion of the property owner.

### *Current LEPC Conservation Programs*

Numerous Federal, state, and private programs currently exist that provide conservation benefits to the LEPC and seek to address some of threats to the species, as described in the RWP (Van Pelt et al. 2013). These programs directly address, to some degree, the following threats to the LEPC:

- Agricultural conversion
- Loss of the Conservation Reserve Program (CRP)
- Grazing management
- Woody invasive species such as mesquite and red cedar
- Shrub control such as sand shinnery oak eradication
- Altered fire regimes
- Fence collisions
- Oil and gas development
- Wind energy development

- Electric transmission and distribution development
- Other vertical structures

Through improvements in habitat quantity, quality, and connectivity, these programs also indirectly address, to some degree, LEPC threats, such as:

- Climate change
- Extreme weather events such as drought, hail storms, and blizzards
- Predation
- Disease

These programs provide technical and financial assistance to property owners for habitat management for LEPC. Other programs provide assurances to property owners and industries that if LEPC considerations are included in management activities, future management can continue in this manner even if LEPC is listed by the Service. Several programs address industry siting; best management practices (BMPs); and avoidance, minimization and voluntary mitigation. Additional programs provide for direct management of LEPC habitat on public or other lands within LEPC range. Current LEPC conservation programs are summarized below.

#### **Regional LEPC CCAAs**

*Several CCAAs are currently in place between the Service and other entities. Property owner CCAAs for measures to improve LEPC habitat currently exist for New Mexico, Oklahoma, and Texas. To date, Texas has enrolled more than 500,000 acres in the CCAA, Oklahoma has enrolled more than 18,000 acres, and New Mexico ranchers and the oil and gas industry have enrolled 1,740,000 and 875,000 acres, respectively. A CCA is another mechanism to benefit candidate species via an agreement between the Service and another Federal agency. The existing CCA for energy development in New Mexico is a cooperative agreement between the Service, Bureau of Land Management (BLM), and Center of Excellence for Hazardous Materials Management (CEHMM) for conservation of the LEPC. The New Mexico CCAA/CCA is described in more detail under Alternative C below.*

*Activities covered by the New Mexico CCAA/CCA include oil and gas development, livestock grazing, recreational use, and agricultural uses on private and BLM lands. The Texas CCAA covers enrolled land activities such as crop cultivation and harvesting, livestock grazing, farm equipment operation, and recreation (Service and Texas Parks and Wildlife Department (TPWD) 2006). The existing Oklahoma CCAA was developed to cover agricultural land management practices.*

*If a property owner not covered by one of the CCAAs described above chooses to undertake conservation measures in the absence of a CCAA, they would not have a permit authorizing incidental take should the species be listed and could risk violation of the ESA Section 9 prohibitions. In addition, the property owner would not have assurances from the Service that no further commitments or restrictions would be imposed on them for the species.*

#### **Other Federal Programs**

*Five Federal agencies have programs or initiatives that directly contribute to LEPC habitat improvement or assurances. These Federal programs are summarized below.*

- *The Natural Resources Conservation Service (NRCS) began the Lesser Prairie-Chicken Initiative (LPCI) in 2008 in a cooperative effort with other Federal and state agencies to increase the abundance and distribution of LEPC, while promoting the health of grazing lands. LPCI is funded through the NRCS Conservation Technical Assistance Program, and NRCS-administered Farm Bill programs such as the Environmental Quality Incentives Program (EQIP) and Wildlife Habitat Incentive Program (WHIP) and helps producers apply conservation practices that benefit LEPC and their operations.*
- *In 2012, the NRCS worked with the Service to initiate the Working Lands for Wildlife program. This program included the LEPC as one of its seven focus species and the LPCI as its delivery program.*
- *The Farm Service Agency administers other Farm Bill conservation programs that benefit LEPC; specifically the Grassland Reserve Program (GRP), CRP, and State Acres for Wildlife Enhancement (SAFE) program.*

- *The Service's Partners for Fish and Wildlife Program restores, improves, and protects fish and wildlife habitat on private lands through partnerships between the Service, property owners, and others.*
- *The BLM manages lands within the occupied range of LEPC and regulates oil and gas permitting on their lands.*
- *The BLM LEPC Special Status Species Resource Management Plan directs BLM's land management activities, including specific guidelines for oil and gas development and other development activities.*
- *The U.S. Forest Service (USFS) manages National Grasslands within the occupied range of LEPC. The USFS is working to address LEPC threats related to grazing, woody invasive species, noxious weeds, altered fire regimes, and other indirect issues on National Grasslands.*

### **State Rules and Regulations**

**Colorado.** *Oil and gas well permits are issued by the Colorado Oil and Gas Conservation Commission (COGCC). Section 34-60-128 of the Colorado Oil and Gas Statutes established the Colorado Habitat Stewardship Act of 2007, which was enacted "to minimize adverse impacts to wildlife resources affected by oil and gas operations." The Act requires oil and gas operators to complete timely consultations with the wildlife commission, the division of wildlife, and affected surface owners prior to beginning operations, and it requires the implementation, "whenever reasonably practicable," of "best management practices and other reasonable measures to conserve wildlife resources." As of April 2009, COGCC rules address oil and gas development threats to the LEPC and other wildlife. These rules require producers to use online resources to identify sensitive wildlife habitat and areas of restricted surface occupancy. In 2013, the Colorado Parks and Wildlife (CPW) redefined sensitive LEPC wildlife habitat from a 1.5-mile radius around leks to include potential habitat within Colorado, as defined as focal areas consistent with the RWP (COGCC 2013). Restricted surface occupancy areas for LEPC are defined as areas within 0.6 mile of leks that have been active once in the last 10 years. Under COGCC rules, development of oil and gas wells within these areas mandates a consultation with CPW to avoid and minimize impacts through site selection, phasing, and concentrating all development activities wherever reasonably practicable. Any conditions of approval resulting from such consultation shall be guided by the list of BMPs for Wildlife Resources maintained on the COGCC website [http://cogcc.state.co.us/RR\\_Docs\\_New/CpwMapUpdate2013/MapUpdateStakeholderGroup.htm](http://cogcc.state.co.us/RR_Docs_New/CpwMapUpdate2013/MapUpdateStakeholderGroup.htm). The intent of the BMPs is to minimize impacts of noise, visual disturbance, disease transmission (West Nile virus), and predator attractants (perches and nest sites); and provide guidance on reclamation and compensatory mitigation as needed. More specific BMPs include:*

- *No surface occupancy within 0.6 mile of any active or inactive (within the past 5 years) LEPC leks.*
- *Avoid oil and gas operations within 2.2 miles of active leks and within LEPC nesting and early brood-rearing habitat outside the 2.2-mile buffer.*
- *Select sites for development that will not disturb suitable nest cover or brood-rearing habitats within 2.2 miles of an active lek, or within identified nesting and brood-rearing habitats outside the 2.2-mile perimeter.*
- *Where oil and gas activities must occur within 2.2 miles of active leks, conduct these activities outside the period between March 15 and June 15.*
- *Restrict well site visitations to between 9:00 a.m. and 4:00 p.m. during the lekking season (March 15 to June 15).*
- *Avoid surface facility density in excess of 10 well pads per 10-square-mile area (one well pad per section) in LEPC nesting and early brood-rearing habitat (within 2.2 miles of active leks).*
- *When surface density of oil and gas facilities exceeds one well pad per section, initiate a Comprehensive Development Plan that includes recommendations for off-site and compensatory mitigation actions.*
- *Locate compressor stations at least 2.2 miles from LEPC active and historic (within last 5 years) lek sites. When compressor stations must be sited within 2.2 miles of LEPC active and historic (within last 10 years) lek sites, locate compressor stations farther than 0.6 mile (3,200 feet) from LEPC lek sites.*
- *Bury new power lines and retrofit existing power lines by burying them or installing perch guards to prevent their use as raptor perches.*

**Kansas.** *The Kansas Corporation Commission (KCC) regulates setback distances and the number of completions for each mineral formation in Kansas through establishment of proration orders. The KCC has a set of basic proration orders that apply to all mineral formations in the state unless more conservative special proration orders have been established. The basic proration orders require setback distances of 330 feet from lease boundaries and do not cap the number of completions that can occur. The specific proration orders that apply to many of the formations within Kansas LEPC range are much more conservative and require setback distances ranging from 660 to 1,250 feet. Those specific proration orders also set a maximum number of completions at specified scales (i.e., density). Approximately half of the mineral formations occurring under Kansas LEPC range are subject to specific proration orders that cap well*

*density at one to six per square mile. The majority of mineral extraction in the sand sagebrush ecoregion in Kansas is subject to specific proration orders that limit densities to three to six wells per square mile.*

*In 2013, a coalition of 29 county governments in Kansas joined in an effort to coordinate conservation for the lesser prairie-chicken. The involved counties encompass approximately 64,954 sq. km (25,079 sq. mi) in western and southern Kansas, including most of the estimated occupied range of the LEPC in Kansas. In August of 2013, this coalition prepared a conservation, management and study plan for the LEPC (Kansas Natural Resource Coalition 2013, entire). The plan summarizes some of the available information regarding LEPCs and has the stated goal of preserving, maintaining, and increasing lesser prairie-chicken populations in balance with and respect for human, private and industrial systems within the 29-county region under governance by the coalition members. The plan identified several conservation actions, such as prescribed fire, being undertaken by the coalition or its member organizations that fall within six major categories of conservation focus: population monitoring, habitat, nest success, predation and interspecific competition, hunting and program funding.*

**New Mexico.** *By statute (Oil and Gas Act, NMSA 1978: Parts 1 through 39 of Title 19, Chapter 15 of the New Mexico Administrative Code), the Oil Conservation Division (OCD) regulates oil, gas, and geothermal activity in New Mexico. OCD gathers well production data, permits new wells, enforces the division's rules and the state's oil and gas statutes, ensures that abandoned wells are properly plugged, and ensures that the land is responsibly restored.*

*The New Mexico Department of Game and Fish (NMDGF) has oil and gas development guidelines for conserving New Mexico's wildlife habitats and wildlife (Jankowitz and Gruber 2007). The purpose of the guidelines is to encourage the oil and gas industry to recognize and proactively plan and fund the full direct and administrative cost of developing, producing, abandoning, and reclaiming facilities that disrupt wildlife habitats and movements statewide. The guidelines are intended for the information and discretionary use of regulatory agencies and concerned citizens as well as industry. The New Mexico guidelines encourage measures that avoid and minimize habitat loss and fragmentation impacts from oil and gas activities and facilities on all wildlife. The guidelines recommend minimizing the total area of disturbed lands; concentrating development activities; burying power lines; minimizing noise from facilities; developing mitigation plans for projects that will result in habitat loss or significant degradation of habitat values; reducing well site visits; and closing and reclaiming obsolete facilities, power lines, and roads. The guidelines also provide specific recommendations to avoid and minimize impacts on big game, raptors, and erosion and water quality; and to identify and manage undesirable plants (Jankowitz and Gruber 2007). These guidelines are intended to promote attention to conserving wildlife and habitat while continuing to develop energy resources.*

**Oklahoma.** *The Oklahoma Independent Petroleum Association worked with the Oklahoma Department of Wildlife Conservation (ODWC) to address threats from oil and gas development by developing a set of Voluntary Best Practices for oil and gas development. These voluntary practices recommend preplanning to avoid areas of high value to LEPC, seasonal restrictions during the breeding season, and consultation with ODWC biologists to minimize impacts. Similar to the Colorado BMPs, the voluntary practices include minimizing the total area of disturbed lands, concentrating development activities, burying power lines, avoiding construction between 3:00 a.m. and 9:30 a.m. during mating season near active leks (March 1 to May 1), minimizing noise from facilities, installing fence markers, and reseeding disturbed areas with native grasses and forbs.*

**Texas.** *The Railroad Commission of Texas (RRC) is the state agency with primary regulatory jurisdiction over the oil and natural gas industry, pipeline transporters, natural gas and hazardous liquid pipeline industry, natural gas utilities, the LP gas industry, and coal and uranium surface mining operations. The RRC is responsible for issuing permits for well drilling and for enforcing rules pursuant to House Bill 2259 that regulate the removal of surface equipment for wells that have been inactive for more than 10 years. The TPWD has developed voluntary mitigation siting guides and BMPs to address threats to LEPC from all types of development. These voluntary guidelines focus on avoiding and minimizing impacts within 1 to 2 miles of active leks, scheduling activities to avoid LEPC habitat between March 1 and July 31, installing raptor deterrents, closing and reclaiming obsolete facilities and roads, restoring areas with native species, and compensating for unavoidable impacts. Compensation includes protecting high-quality habitat, restoring historic habitat and connective corridors to existing LEPC habitat, funding/performing monitoring, maintaining habitat, conducting surveys, mapping habitat and conducting research, replacing or providing substitute habitat, and providing payment based on agreed-upon LEPC to-be-determined habitat value(s).*

## **RWP – An Element Common to All Alternatives**

WAFWA would implement the RWP and oil and gas operators would have the option of enrolling in the RWP under each of the alternatives. In Alternative A, operators could choose to enroll in the RWP through a WAFWA Certificate of Participation (WCP). In Alternative B, operators could choose to enroll in the RWP or the Range-wide Oil and Gas CCAA or neither. In Alternative C, the Range-wide Oil and Gas CCAA would not include New Mexico, because the New Mexico CCAA/CCA would be available for enrollment of operators. In this alternative, operators could choose to enroll in the RWP or the New Mexico CCAA/CCA Range-wide Oil and Gas CCAA or neither.

The goal of the RWP is to conserve the LEPC for future generations while facilitating continued and uninterrupted economic activity throughout the entire five-state LEPC range. The RWP identifies a two-pronged strategy for LEPC conservation: (1) the coordinated implementation of incentive-based property owner programs, and (2) the implementation of a mitigation framework that reduces threats and provides resources for off-site conservation. The conservation strategy provided in the RWP is intended to preclude the need to list the LEPC under the ESA if implemented in a timely manner.

The long-term effects of implementing the RWP's conservation strategy provide a long-term benefit to LEPC and other listed and candidate species in the following ways:

1. Identifies a desired population goal of 67,000 birds to be achieved within a 10-year period.
2. Concentrates limited resources for species conservation in the most important focal areas and connectivity zones, allowing for the restoration, enhancement, and maintenance of large blocks of habitat needed by LEPC.
3. Places an emphasis for conservation on focal areas, connectivity zones, and high-quality habitat.
4. Identifies areas where development should be avoided, which also helps identify areas where development is of less concern for LEPC. This provides oil and gas operators with the guidance they typically seek for their development planning purposes, and helps avoid conflicts over impacts to the species.
5. Provides incentives for property owners to avoid impacts to LEPCs and their habitat in focal areas, connectivity zones, and high-quality habitat, and includes provisions to minimize and mitigate impacts that do occur from their actions.
6. Where avoidance and minimization of such impacts are not possible, the RWP mitigation framework quantifies the impacts of development, quantifies the amount of mitigation necessary to offset the impacts, and then requires the payment of mitigation fees by Participants for these mitigation actions. WAFWA uses the fees to implement conservation measures to improve or restore LEPC habitat in the most important areas for the species.

### ***Habitat Goals and Focal Area Strategy***

Habitat and population goals for the RWP were established by a science committee comprised of biologists from the five-state wildlife agencies and the U.S. Department of Agriculture's NRCS, Texas Tech and Oklahoma State universities, the Service, U.S. Geological Survey (USGS), Sutton

Avian Research Center, and Playa Lake Joint Venture. The science committee set a desired population goal of 67,000 birds based on an annual spring average over a 10-year period, or an increase of 9.4 percent from the current 10-year average of 60,702 birds (Van Pelt et al. 2013). The science committee also established a goal of having sufficient habitat in focal areas to sustain 75 percent of the desired population. This translates into the equivalent of 4,972,800 acres of quality LEPC habitat as the initial focal area habitat goal for the RWP. The habitat to sustain the remaining 25 percent of the population goal (1,243,136 acres) would be maintained elsewhere within connectivity zones and the remaining EOR+10. The habitat goals for focal areas and connectivity zones developed in the RWP are no more than 30 percent development impacts in focal areas and 60 percent in connectivity zones. Where those development goals are surpassed for an individual reporting unit, the habitat goals under the plan cannot be met. In that case, remediation of existing impacts will be required before further development can occur.

The focal area strategy of the RWP represents a mechanism to effectively translate ecoregional population goals to habitat goals at appropriate spatial scales for conservation implementation. Identifying focal areas directs the conservation efforts of the RWP into these areas, creating more contiguous blocks of habitat and minimizing small local patches of habitat that may not support desired population levels.

The delineation of focal areas would also assist developers by prioritizing areas where avoidance of impacts is most needed and encouraging development in areas with minimal or reduced potential impacts on the species. In this way, focal areas would define high-priority areas needed for LEPC persistence. The conservation strategy of the RWP provides incentive programs to engage property owners in implementing habitat improvements within focal areas with large blocks of quality habitat. The conservation strategy of the RWP would also encourage avoidance and minimization of impacts on LEPC from oil and gas developments, especially within focal areas.

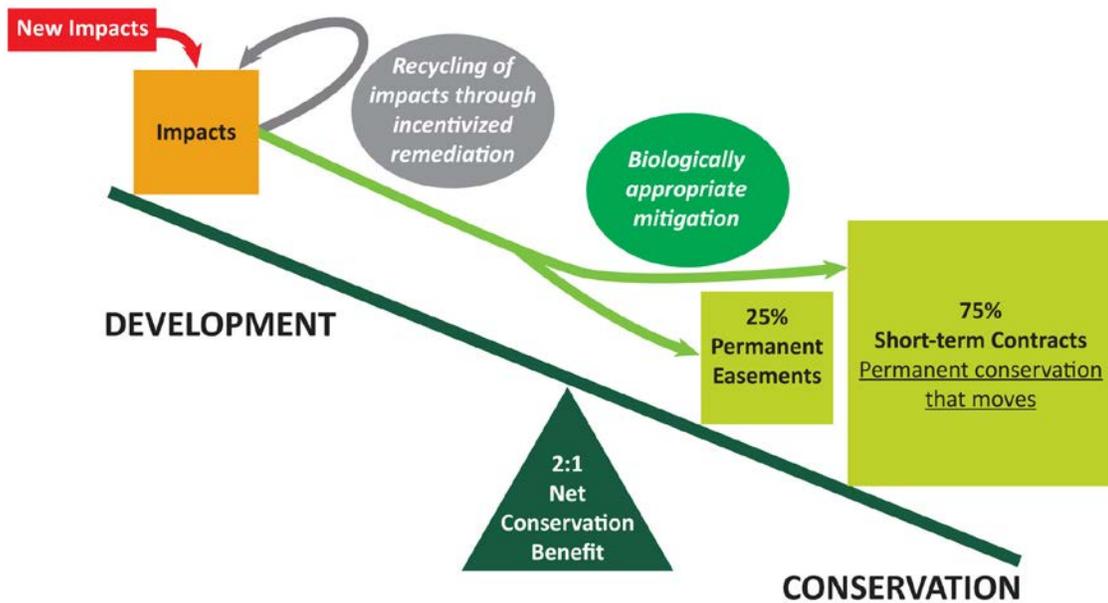
As a mitigation component, the strategy would encourage the concentrated placement of compensatory actions through off-site mitigation in the form of habitat improvements in focal areas and connectivity zones, supported through the WAFWA Mitigation Framework. A habitat impact is defined as potential LEPC habitat that has been rendered unusable by LEPC based on direct or indirect habitat loss related to development. Indirect habitat loss refers to avoidance by LEPC of potential habitat around an impact. A habitat offset unit is defined as an area of potential LEPC habitat that is conserved and managed or restored to compensate for impacted habitat. The affected acreage is defined as the area enrolled in the mitigation framework minus the acreage within impact buffers of existing developments.

All mitigation offsets must be of the same or higher CHAT level than the impact unit, resulting in a net conservation benefit for LEPC habitat, and ultimately populations. One-quarter of the resulting habitat offset units are targeted toward permanent easements to support long-term conservation and population strongholds, as shown in Figure 2. The remaining three-quarters of the conservation efforts are targeted toward short-term contracts (5 to 10 years). Despite the temporary nature of individual contracts, the strategy is to always have the three-quarters in conservation contracts. In other words, while some contracts may not be renewed, others will have been established to maintain the three-quarters goal percent goal. Mitigation would be used to offset remaining habitat loss impacts based upon the buffer area for the type of infrastructure constructed (Table 7 in the RWP). In addition to paying for offsets elsewhere, mitigation may include reclaiming or remediating inactive or abandoned facilities and

infrastructure under the control of the Participants in compliance with applicable state rules and regulations.

To allow WAFWA adequate time to generate offset units after the RWP takes effect, the requirement that offset units be secured prior to the commencement of Impact Activities is waived until March 30, 2015 (Waiver Period). Impact Activities are defined as construction of oil and gas pads, compressor stations, private roads (e.g., lease roads), distribution lines, and industrial buildings. However, the Participant must pay Mitigation Fees (fees a Participant is required to pay when impacts on the LEPC from Impact Activities cannot be avoided or minimized) prior to conducting Impact Activities in accordance with the terms of the RWP during the Waiver Period. Mitigation fees paid by the Participant would not necessarily be used on the Enrolled Property in a CI because that area may not encompass the highest priority areas identified for conservation actions by WAFWA and the Service. During the Waiver Period, WAFWA would use best efforts to contemporaneously secure sufficient offset units to mitigate for Impact Activities in accordance with the RWP.

**Figure 2. WAFWA LEPC Mitigation Framework**



### Alternative B- Proposed Action: Range-wide Oil and Gas CCAA

The Proposed Action would involve the approval and implementation of the Range-wide Oil and Gas CCAA between the Service, WAFWA, and Participants, and the issuance of a Section 10(a)(1)(A) Enhancement of Survival Permit by the Service to WAFWA. The Range-wide Oil and Gas CCAA would effectively implement the conservation strategy, using the same impact metrics and conservation delivery system provided in WAFWA’s RWP across the range of the LEPC Colorado, Kansas, New Mexico, Oklahoma, and Texas (Figure 1).

### ***Enrolled Properties***

A property owner is any person or entity with a fee simple, leasehold, or other property interest (including owners of water or other natural resources) sufficient to carry out the conservation measures described in the Range-wide Oil and Gas CCAA and CI, subject to applicable state law, on non-Federal land. A Participant is any non-Federal property owner who enrolls their property under the Range-wide Oil and Gas CCAA. Property owners who wish to enroll in the Range-wide Oil and Gas CCAA would apply to WAFWA for a CI under WAFWA's Permit. With WAFWA's approval, each property owner would sign a CI to enroll one or more parcels of land and/or leases (Enrolled Properties) where they propose to develop oil and gas resources that may impact the LEPC. The CI commits the Participant to pay enrollment and mitigation fees to offset impacts and implement other avoidance, minimization, and mitigation measures identified in the Range-wide Oil and Gas CCAA. The CI would remain tied to the Enrolled Property described in the CI even though the Participant may change over time as a result of property transfers. WAFWA would be responsible for ensuring the new property owner understands the commitments of the CI and is provided the option of signing it. The CI conveys the Permit's incidental take coverage and regulatory assurances to the Enrolled Property as long as the Participant and WAFWA are properly implementing the CI and CCAA, respectively.

### ***Administration of CCAA and CIs***

The Range-wide Oil and Gas CCAA is a voluntary agreement with defined conservation commitments and represents a collaborative effort between the Service and WAFWA. WAFWA would facilitate the implementation and administration of the Range-wide Oil and Gas CCAA with Service oversight. The CCAA and mitigation framework provides WAFWA with an early and substantial commitment of funds by Participants. Upon enrollment in the CCAA, Participants will remit enrollment fees for the first three years of enrollment. Although these enrollment fees serve as pre-payments of mitigation fees that would be required for future development, the commitment of these funds upon enrollment provides WAFWA with substantial resources to begin securing landowner contracts and generating offset units. The RWP also establishes an Advisory Committee and various subcommittees to provide scientific review and prioritization of mitigation projects, and other review; WAFWA and the Service would both participate in the Advisory Committee, as would other agencies, industry, and interest groups.

### ***Species Covered***

The LEPC is a species of prairie grouse endemic to the southern High Plains of the United States, commonly recognized for its stout build, ground-dwelling habitat, and elaborate breeding behavior. The RWP contains detailed background information regarding the LEPC including information about the species' life history, habitat requirements, and population status. Because the Range-wide Oil and Gas CCAA is intended to align with and complement activities associated with the RWP, as explained below, the LEPC species information set forth in the RWP is incorporated by reference.

### ***Covered Area***

The area addressed by the Range-wide Oil and Gas CCAA is the EOR+10 (University of Kansas et al. 2013). The Covered Area encompasses 40,149,404 acres across parts of Colorado, Kansas, New Mexico, Oklahoma, and Texas (Figure 1). The Permit and executed CIs provide incidental take coverage within this Covered Area.

### ***CCAA, CI, and Permit Duration***

The Range-wide Oil and Gas CCAA would have a duration of 30 years from the date the Range-wide Oil and Gas CCAA is signed by WAFWA and the Service. If the LEPC is listed, the Permit would become effective upon the effective date of the listing (typically 30 days after the publication of the final listing rule) until the end of the CCAA's 30-year duration. The Permit may be renewed according to the provisions of 50 CFR 13 and 50 CFR 17.22(d) or 17.23(d) and contingent on Service approval after complying with additional NEPA, ESA Section 7 and Section 10 requirements. The duration of a CI can be for any length of time agreed upon by WAFWA and the Participant within the effective dates of the Range-wide Oil and Gas CCAA. Incidental take coverage for CI participants becomes effective upon the effective date of WAFWA's permit.

### ***Activities Covered by Permit***

The Permit would authorize a specified level of incidental take that is anticipated to occur in association with oil and gas development-related activities and implementation of conservation measures in the Range-wide Oil and Gas CCAA (Covered Activities). These activities, which span the entire life-cycle of oil and gas development operations, generally include, but are not limited to, the following.

#### ***Seismic and Land Surveying***

Seismic activities are generally performed in the exploration mode of oil and gas development or in areas of development for refining knowledge of the geology and improving well siting. Seismic activities are conducted for short periods (i.e., days) in any given area. Activities may include the use of large equipment to induce seismic pulses. Additionally, activities may include limited clearing of vegetation to allow equipment access for seismic work, which could consist of a small crew laying or stringing temporary cables and placing receivers on foot or possibly using off-highway vehicles (OHVs). A crew would remove the cables when the project is complete. Land surveying is a temporary activity and may require some truck and/or foot traffic.

#### ***Construction***

Construction of facility sites and associated infrastructure includes, but is not limited to, access roads, well pads or locations, reserve pits, and other facilities for the disposal of waste, tanks and storage facilities, treaters, separators, dehydrators, electric and other utility lines, and pipelines (e.g., gathering lines, flowlines, and distribution lines). Such construction may entail the use of heavy equipment and trucking activities in clearing vegetation, contouring, compacting, stabilizing soils, and installing erosion control (including silt fencing, earthen berms, etc., per Clean Water Act permitting requirements). Well site construction may also include erecting temporary fencing and netting around a location, or portions thereof, for livestock and wildlife protection. A water well, disposal well, and/or injection well may be drilled near the location and possible trenching-related activities associated with installation of flowlines, pipelines, and utilities may occur. Associated infrastructure for compressor facilities and gathering/processing facilities may also be constructed on-site or at adjacent sites. Where practical, equipment may be electrified (greatly reducing noise and emissions from gas-driven equipment), which involves the installation of in-field electrical distribution systems (poles, transformers, and overhead wires). Activities may be conducted to plug and abandon a well, which may involve workover rig mobilization, removal of facility equipment and associated infrastructure, access roads, abandonment in place of subsurface lines, and surface remediation/restoration pursuant to lease and regulatory requirements.

### ***Drilling, Completion, and Workovers (Recompletion)***

Related drilling, completion, and workover activities include rig mobilization and can include heavy equipment and frequent traffic. Well site fencing may be used after recompletion operations for security and to limit access. Wellbore completion activities, such as hydraulic fracturing, may occur on any lands within the Covered Area, but such activities need not be enrolled in a CI under this Range-wide Oil and Gas CCAA or in the RWP because these activities take place on the well site location where LEPC are not expected to occur.

### ***Routine Operations and Maintenance***

Routine operations can include stimulations and wellbore repair, daily inspections and maintenance, gathering line and flowline repairs, unloading storage tanks, truck traffic for removal of product or waste, emergency response activities, workovers, recompletions, flaring, and weed control.

### ***Oil and Gas Remediation and Restoration***

Remediation and restoration of surface impacts include, but are not limited to, removal and restoration of access roads; well pads or locations; reserve pits and other facilities for the disposal of waste; tanks and storage facilities; treaters; separators; dehydrators; electric and other utility lines and pipelines (e.g., gathering lines, flowlines, and distribution lines); associated infrastructure for compressor facilities; and gathering/processing facilities. Remediation and restoration may occur on any lands within the Covered Area, but such lands need not be enrolled in a CI under this Range-wide Oil and Gas CCAA or in the RWP because LEPC are not expected to occur on such lands.

### ***Relationship to Other Decisions***

This EA analyzes the effects of the Proposed Action, which is the issuance of a Section 10(a)(1)(a) Enhancement of Survival Permit and the implementation of the Range-wide Oil and Gas CCAA, based on the coverage and conservation measures described in the proposed Range-wide Oil and Gas CCAA. The decision to be made by the Service is whether to issue the permit, which is the Federal action. The Service's decision whether to list the LEPC as threatened under the ESA, is a separate but related Federal action that is not analyzed in this EA. Likewise, the development of the RWP, subsequent land use, oil and gas development, within the Covered Area in response to the Service's ultimate listing decision are also separate decisions not considered in this EA.

### ***Conservation Measures***

The conservation measures provided in the Range-wide Oil and Gas CCAA are the same as the RWP, but with additional details for greater clarification. As in the RWP, the goal of the Range-wide Oil and Gas CCAA is to implement conservation measures needed to conserve, enhance, and restore habitat and reduce and/or eliminate threats to the LEPC in the highest priority areas. As new information or empirical data become available, these conservation measures may be modified, if mutually agreed upon within the context of assurances, through adaptive management to achieve greater species conservation.

Under the Range-wide Oil and Gas CCAA, Participants would agree to measures to avoid, minimize, and mitigate their impacts to the LEPC. WAFWA would use enrollment and mitigation fees paid by Participants to facilitate LEPC management activities and conservation measures

that conserve and enhance existing populations and habitats, restore degraded habitat, and provide other activities that improve the status of the LEPC. These conservation measures are described in the text boxes below.

### **Conservation Measures from the Range-wide Oil and Gas CCAA**

#### ***Habitat Loss and Fragmentation***

*Habitat loss and fragmentation are primary threats to the LEPC. Construction of oil and gas pads, compressor stations, private roads (e.g., lease roads), distribution lines, and industrial buildings (Impact Activities) may contribute to habitat loss and fragmentation. The following conservation measures apply to any action that could further negatively impact LEPC habitat or connectivity between blocks of LEPC habitat to receive coverage under the Range-wide Oil and Gas CCAA.*

#### *Avoidance*

- *Use available options to avoid focal areas, connectivity zones, or within 1.25 miles of known leks that have been active at least once within the previous 5 years, as well as project sites dominated by tracts of native grass and shrublands (see the 2013 CHAT, state fish and wildlife agency staff, and Section XIV of the Range-wide Oil and Gas CCAA for more information). (Discretionary)*
- *Focus development on lands already altered or cultivated (such as row-crop agriculture or developed oilfields), and away from areas of undeveloped native grass or shrublands. Select fragmented or degraded habitats over relatively intact areas, and select sites with lower LEPC habitat potential over sites with greater habitat potential. The NRCS Ecological Site Descriptions, where available, are good indicators to use (see Appendix C of the RWP (Sept. 2013 version)). (Discretionary)*

#### *Minimization*

- *Where avoidance is not possible, use common rights-of-way for multiple types of infrastructure in locating new roads, fences, power lines, well pads, flowlines, compressors, and other associated oil and gas infrastructure. (Discretionary)*
- *Site projects to minimize new habitat disturbance by increasing the amount of overlap between existing fragmentation and associated impact buffers. (Discretionary)*
- *For oil and gas development, reduce impacts through the use of directional drilling and clustering where feasible or in locating facilities to reduce habitat loss and fragmentation of habitat. (Discretionary)*
- *Minimize use of herbicide treatments and limit this use to the footprint or right-of-way for the project. Where practical and applicable, use an herbicide that is targeted for specific use and spot treatments as opposed to a broadband herbicide and broadcast treatments. Apply in conditions that minimize drift. (Required)*

#### *Mitigation*

*Any impacts not offset by the avoidance or minimization measures above will be mitigated as follows:*

- *Participants will provide for mitigation of habitat loss associated with new Impact Activities through the payment of Mitigation Fees as described in Section XIII and Appendix A of the Range-wide Oil and Gas CCAA and Exhibit B of the CI. WAFWA will apply Mitigation Fees to generate offset units using the process described in Appendix H of the RWP (Sept. 2013 version). (Required)*

***Collision and Other Direct and Indirect Sources of Mortality***

*LEPC have been shown to collide with fences, power lines, and cars. Power lines also serve as potential perch sites for raptors that may prey on LEPCs. It is also possible for LEPC to get caught and drown in human-made water sources (e.g., tanks).*

*Avoidance*

- *Locate new roads, fences, power lines, well pads, flowlines, compressors, and other associated oil and gas infrastructure and their impact buffers outside focal areas, connectivity zones, or in other areas identified as high-probability lek and nest habitat by 2013 CHAT categories 1 through 3. (Discretionary)*
- *Bury new distribution lines within 1.25 miles of leks active within the previous 5 years. If new distribution lines cannot be buried, justification must be provided to and approval obtained from WAFWA prior to construction of such new distribution lines. (Required)*

*Minimization*

- *Use common rights-of-way for multiple types of infrastructure. (Discretionary)*
- *To minimize the transmission line footprint, use monopole construction for new electrical transmission lines within 2013 CHAT categories 1 through 3. (Required)*
- *For oil and gas development, use horizontal drilling, pad drilling (multiple wells per pad), and common tank batteries where feasible with regulatory approval to minimize new surface disturbance within 2013 CHAT categories 1 through 3. (Discretionary)*
- *Install appropriate fence markings along new fences that are under the control of the enrolled Participant within 0.25 mile of a lek that has been recorded as active within the previous 5 years. (Required)*
- *During the breeding season (March 1 to July 15), minimize traffic volume, control vehicle speed, control access where feasible, and avoid off-road travel within focal areas and areas identified as high-probability lek and nest habitat by the 2013 CHAT. (Required)*
- *Within 1.25 miles of leks, it is recommended, but not required, to install raptor deterrents on new electrical distribution and transmission poles as indicated by the Avian Power Line Interaction Committee Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006, as amended. If further studies are completed that demonstrate significant benefits to the LEPC, this conservation measure may be amended for new Participants and new enrollments by existing Participants. (Recommended but not required; mitigation is not required)*
- *Provide escape ramps, rafts, or ladders, depending on configuration, in exposed human-made water-containment sources on Enrolled Properties under the control of the enrolled Participant. (Required)*

*Mitigation*

*Any impacts not offset by the avoidance or minimization measures above will be mitigated as follows:*

- *Participants will provide for mitigation of habitat loss associated with new Impact Activities through the payment of Mitigation Fees as described in Section XIII and Appendix A of the Range-wide Oil and Gas CCAA and Exhibit B of the CI when complete avoidance is not possible. WAFWA will apply Mitigation Fees to generate offset units using the process described in Appendix H of the RWP (Sept. 2013 version). (Required)*

***Disturbance of Breeding, Nesting, and Brooding Activities***

*Disruption of courtship displays and nesting hens in the form of construction and maintenance activities or equipment and infrastructure that emit loud noises may have direct impacts on LEPC reproductive output.*

***Avoidance***

- *Avoid nonemergency operations and construction and maintenance activities, where humans are present, during the lekking, nesting, and brooding season (March 1 to July 15) within 1.25 miles of leks recorded active within the previous 5 years. (Discretionary, see Section XII(C)(2)(a) of the Range-wide Oil and Gas CCAA) Emergency operations are allowed. Emergency operations are those activities unexpectedly and urgently required to prevent or address immediate threats to human health, safety, or property; the environment; or national defense or security. . Participants must also record the dates, duration, and purpose of any emergency operations and construction and maintenance activities that occurred between March 1 and July 15 within 1.25 miles of leks recorded as active within the previous 5 years; and must provide that documentation and provide that documentation to WAFWA within 30 days. (Required) Seismic surveys and similar activities that require extensive off-road travel shall not be conducted in rangeland or planted grass cover during the lekking, nesting, and brooding season (March 1 to July 15) within 1.25 miles of leks recorded active within the previous 5 years and lek surveys shall be required in CHAT categories 1-3 prior to any breeding season seismic surveys. (Required subject to exception in Section XII(C)(2)(c) in the Range-wide Oil and Gas CCAA.)*

***Minimization***

- *For nonemergency operations and construction and maintenance activities, where humans are present, that cannot be avoided and must occur during March 1 to July 15, restrict activities between 3:00 a.m. and 9:00 a.m. in areas within 1.25 miles of leks that have been recorded as active within the previous 5 years. (Required)*
- *Institute noise abatement year-round for new facility operations (post-construction, post-drilling, post-completion, and post-recompletion) located within 1.25 miles of a lek recorded as active within the previous 5 years. Noise from these new facilities shall not exceed 75 decibels (dB) when measured at the Participant's property line or at any point greater than 30 feet from the facility boundary. This minimization measure is required unless other regulations require lower noise levels. If new scientific information becomes available supporting lower or higher decibel limits through the adaptive management process, this conservation measure may be amended for both new and existing Participants. In the event of changes in noise limits for existing Participants, WAFWA and the Participants would agree upon a timeline for implementing those changes. (Required)*
- *If a complete lek survey is conducted for the proposed seismic activity area, the Permit Holder shall consider, on a case-by-case basis, the application of seismic methodologies that minimize LEPC disturbance from off-road travel during the lekking, nesting, and brooding season (March 1 to July 15) within 1.25 miles of leks recorded as active within the previous 5 years. Daily timing restrictions for lek disturbance (3:00 a.m. to 9:00 a.m.) must be observed within 1.25 miles of leks recorded as active within the previous 5 years. (Required)*

Under the Range-wide Oil and Gas CCAA, the Participants would receive assurances that the Service would not impose additional restrictions or commitments beyond those agreed upon in the CCAA, as long as the CCAA is properly implemented. However, new conservation measures may be implemented through an amended Range-wide Oil and Gas CCAA if WAFWA and the Service agree that such measures would be necessary to facilitate the continued conservation of the LEPC. Conservation measures in the existing Range-wide Oil and Gas CCAA may only be modified through the written consent of the Participants through the amendment procedures described in the Range-wide Oil and Gas CCAA.

***Adaptive Management***

The Range-wide Oil and Gas CCAA and RWP have identified activities or situations that would trigger the adaptive management process and corrective actions to be implemented in response to these changed circumstances. Changes identified through a formal evaluation process would affect implementation of the Range-wide Oil and Gas CCAA by adjusting conservation measures

for new Participants. For existing Participants, mitigation fees would be reviewed on an annual basis, as described in the Range-wide Oil and Gas CCAA, and can be adjusted annually up to 3 percent to account for inflation and up to 4 percent to account for changes in mitigation fees, as described in the RWP. New or changed conservation measures may be applied to new CIs and existing enrolled lands in existing CIs following the amendment process described in the Range-wide Oil and Gas CCAA. The Range-wide Oil and Gas CCAA has also identified a process for addressing changes in technology associated with oil and gas exploration and emerging science relating to LEPC ecology that allows for adjustments in mitigation fees in response to any increase or decrease in impacts on LEPC from changed circumstances.

## **Alternative C: Range-wide Oil and Gas CCAA, Excluding New Mexico**

Alternative C includes the implementation of the Range-wide Oil and Gas CCAA throughout the range of the LEPC, with the exception of the state of New Mexico. All of the same conservation measures and regulatory assurances of Alternative B would be available in Kansas, Colorado, Oklahoma, and Texas, but not in New Mexico. Non-Federal property owners in New Mexico would still have the opportunity to enroll in the existing New Mexico CCAA/CCA or the RWP.

In December 2008, the Service, the BLM, and the CEHMM worked together to develop a CCA to programmatically address the needs of the LEPC in New Mexico. The CCA is for BLM lands and its companion CCAA is for non-Federal lands to conserve LEPC and sand dune lizard (*Sceloporus arenicolus*) (SDL) habitats. The New Mexico CCAA/CCA provides incentives for voluntary conservation of species-at-risk on non-Federal lands. In the New Mexico CCAA/CCA, a property owner voluntarily enrolls property into the CCAA and commits to implement specific conservation measures on non-Federal lands for the covered species by signing a CI. The property owner then receives the same regulatory assurances from the Service provided with properly implemented CCAAs. Without regulatory assurances, property owners may be unwilling to initiate conservation measures for these species. The CI for oil and gas companies in New Mexico requires funds to be contributed to assist in restoration or protection of habitat for the LEPC and/or SDL. Based on the amount of contributed funds available, a team of wildlife biologists from the BLM, Service, CEHMM, and NMDGF work cooperatively to determine which habitat improvement and research projects are of the highest priority to benefit one or both of the species. Using available funds, the team of biologists ranks the proposals and selects the highest priority projects that improve habitat and reduce risk to either species.

Although some elements of the New Mexico CCAA/CCA are similar to the Range-wide Oil and Gas CCAA (Alternative B), differences exist between the two plans, as described in Table 1.

**Table 1. Differences between Action Alternatives in the New Mexico CCAA/CCA and Range-wide Oil and Gas CCAA.**

<b>CCAA Component</b>	<b>Alternative B Range-wide Oil and Gas CCAA (tiers to RWP)</b>	<b>Alternative C Range-wide Oil and Gas CCAA, Excluding New Mexico</b>
<b>Coverage and Prioritization</b>	Includes non-Federal property that currently provides or could potentially provide suitable habitat for the LEPC (EOR+10) in the states of Colorado, Kansas, New Mexico, Oklahoma, and Texas.	The New Mexico CCAA/CCA provides coverage for private, state, and BLM lands by county that essentially includes all of the EOR of LEPC for the entire state, including a buffer for future expansion. However, the prioritization of funding and conservation measures are concentrated in four southeastern counties (Lea, Eddy, Chaves, and Roosevelt) with little to no enrollment of lands in the northern portion of the New Mexico range in Quay, Curry, and DeBaca counties (CEHMM 2012).
<b>Administration</b>	Administered by WAFWA. WAFWA is a quasi-governmental organization of 23 public agencies charged with the protection and management of fish and wildlife resources in the western part of the United States and Canada. The WAFWA Board of Directors consists of leaders from western fish and wildlife agencies.	Administered by CEHMM, a 501(c)(3) organization established in 2004 that is dedicated to cutting-edge applied research programs, community support, education, and cooperative conservation. The CEHMM Board of Directors is a diverse group of scientists, academics, politicians, and private citizens. CEHMM is funded through Federal and state grants and various donor contributions.
<b>Permit Duration</b>	30 years	20 Years

CCAA Component	Alternative B Range-wide Oil and Gas CCAA (tiers to RWP)	Alternative C Range-wide Oil and Gas CCAA, Excluding New Mexico
<p><b>Conservation Measures</b></p>	<p>General Habitat Conservation Measures:</p> <ul style="list-style-type: none"> <li>• WAFWA-approved LEPC management plan for Enrolled Properties with offset units.</li> <li>• Use available options to avoid focal areas, connectivity zones, or within 1.25 miles of known leks (see the 2013 CHAT and state fish and wildlife agency staff for more information).</li> <li>• Focus energy development on lands already altered or cultivated (such as row-crop agriculture or developed oilfields), and away from areas of undeveloped native grasslands or shrublands.</li> <li>• Select fragmented or degraded habitats over relatively intact areas, and select sites with lower LEPC habitat potential over sites with greater habitat potential.</li> <li>• No restrictions on well pad density.</li> <li>• Seasonal use restrictions within the plan are designed to minimize the harassment related to construction, maintenance, surveying, or seismic operations during key breeding, nesting, and brooding periods; those seasonal use restrictions are focused within 1.25 miles of known leks.</li> </ul>	<p>General Habitat Conservation Measures:</p> <ul style="list-style-type: none"> <li>• Establish plans of development for Enrolled Properties.</li> <li>• Construct new infrastructures in locations that avoid occupied and suitable LEPC habitat</li> <li>• Construct all infrastructures supporting well development (including roads, power lines, and pipelines) within the same corridor.</li> <li>• Avoid well pad construction within 1.5 miles of an active lek unless reviewed and approved by CEHMM and the Service.</li> </ul>
	<p>Minimize use of herbicide treatments and limit this use to the footprint or right-of-way for the project.</p>	<p>For LEPC, herbicide treatment should not be applied around large oak motts or within 1.5 miles of active lek sites.</p>
	<p>Provide escape ramps in all open water sources for LEPC.</p>	<p>Provide escape ramps in all open water sources and trenches for LEPC.</p>
	<p>Bury new distribution lines within 1.25 miles of leks active within the previous 5 years.</p>	<p>Bury new distribution power lines that are planned within 2 miles of occupied LEPC habitat (measured from the lek).</p>
		<p>No leasing of any lands within the Conservation Lands (enrolled lands identified in the CI that provide conservation benefits for the LEPC and/or SDL under this CCAA) to oil and gas development, including roads, fences, or power lines, where the non-Federal property owner has discretion.</p>

CCAA Component	Alternative B Range-wide Oil and Gas CCAA (tiers to RWP)	Alternative C Range-wide Oil and Gas CCAA, Excluding New Mexico
		CEHMM would implement conservation measures for the LEPC by providing technical assistance through which cooperating non-Federal property owners can implement these measures for the LEPC on their properties or contribute funds to have conservation measures implemented in other high-priority areas.
	Install appropriate fence markings along new fences within 0.25 mile of a lek. Timing restrictions for nonemergency operations and construction and maintenance activities, where humans are present, that cannot be avoided and must occur from March 1 through July 15.	Install fence markers along fences that cross through occupied habitat within 2 miles of an active lek. Timing restrictions from March 1 through June 15.
<b>Mitigation</b>	Habitat loss will be mitigated following the procedures explained in the Range-wide Oil and Gas CCAA when complete avoidance is not possible. Uses a 2:1 mitigation ratio that ensures that offsets are greater than impacts,. Mitigation includes NRCS conservation practices of prescribed grazing and burning, brush management, and range planting. Impacts are mitigated in perpetuity through a non-wasting endowment.	Conservation benefits for the LEPC are expected in the form of avoidance of negative impacts, reclamation of disturbed areas, and voluntary enhancement and restoration of habitat. Mitigation payments for oil and gas developments are assessed on a per well basis. Payments can fund land acquisition, conservation easements, and habitat improvement programs designed to offset impacts.
<b>Easements (type and duration)</b>	The value of 25 percent of the habitat offset units will be targeted toward permanent easements to support long-term or dynamic conservation and population strongholds. The remaining 75 percent of the conservation efforts will be targeted toward short-term or static contracts (5 to 10 years).	No specific easement requirements.
<b>Funding</b>	Provided through the Mitigation Framework in terms of enrollment fees and mitigation fees. Mitigation fees are assessed based on the area of disturbance, including the impact buffer around the project site, as well as the quality of the habitat to be affected and the CHAT category (e.g., projects in CHAT 1 have higher mitigation fees than other CHAT categories).	Funding for recruiting willing property owners, identifying appropriate lands for enrollment, surveying for LEPC, preparing CIs, and planning for habitat conservation and management is not included in the New Mexico CCAA/CCA. Funding for habitat enhancement is provided by mitigation fees and through outside sources such as Partners for Fish and Wildlife and the NRCS.

## CHAPTER 3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

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### Introduction

This chapter describes the resources potentially impacted by the alternatives and the likely environmental consequences resulting from implementation of the alternatives. This chapter is organized by impact topics that were derived from internal scoping with the Service and WAFWA and consideration of Federal laws, regulations, and orders. Resource topics retained for analysis in this EA include soils; water resources; vegetation; listed, proposed, and candidate species; other wildlife; cultural resources; socioeconomics; land use; and prime farmland. Resource topics that were excluded from further consideration because the proposed actions would be expected to have no effect or the effects would be less than minor are described below in the *Resources and Issues Dismissed from Further Consideration* section in this chapter.

The RWP, and this Range-wide Oil and Gas CCAA, would cover all lands currently occupied or potentially occupied by the LEPC in Colorado, Kansas, Oklahoma, New Mexico, and Texas. The current estimated occupied range of the LEPC in these five states is about 19.8 million acres and with a 10-mile buffer, this encompasses an area of approximately 40.2 million acres (Van Pelt et al. 2013). While resource conditions and land uses vary widely over this large geographic area, habitat for the LEPC occurs in four primary ecoregions: Sand Shinnery Oak Prairie, Sand Sagebrush Prairie, Mixed Grass Prairie, and Shortgrass Prairie/CRP Mosaic (Figure 1). The *Affected Environment* section for each resource topic provides an overview of the current conditions and past and ongoing activities that have affected the environment in the broad Covered Area. The *Environmental Consequences* section for each resource provides analysis of the anticipated impacts on the resource under the No Action and action alternatives.

Resource impacts are discussed in terms of the context of the intensity, duration, and type of impact. The intensity and type of impact is described as negligible, minor, moderate, or major and as adverse or beneficial. Table 2 describes the impact thresholds for each resource topic used in the analysis. The duration of impacts is analyzed separately for each resource because impact duration varies for each resource. Impact duration is defined as short-term or long-term for each resource. Effects can be direct, indirect, or cumulative. Direct effects are caused by an action and occur at the same time and place as the action. Indirect effects caused by the action occur later or farther away. Cumulative effects consider the incremental effects of the action when added to other past, present, and reasonably foreseeable actions. These effects are discussed in the *Cumulative Effects* section.

**Table 2. Impact thresholds.**

Resource	INTENSITY				DURATION	
	Negligible	Minor	Moderate	Major	Short-term	Long-term
Soils	Soils would not be affected or the effects would be below or at the lower levels of detection.	The effects on soils would be detectable. The effects on soil erosion potential or productivity would be small, as would be the area affected. If mitigation were needed to offset adverse effects, it would be relatively simple to implement and would likely be successful.	The effects on soil erosion potential or productivity would be readily apparent. The resulting change to soil character would cover a relatively wide area. Mitigation measures would likely be necessary to offset adverse effects and would likely be successful.	The effects on soils productivity would be readily apparent and would substantially change the character of the soils at a landscape level (i.e., occurring across several different major land resource areas or ecological units within the Covered Area). Mitigation measures to offset adverse effects would be needed, extensive, and their success could not be guaranteed.	Impacts would last less than 2 years.	Impacts from the proposed actions would be greater than 2 years.
Water Resources	Water resources and water quality would not be affected or the effects would be below or at the lower levels of detection. Any effects on water resources and quality would be slight.	The effects on water resources and water quality would be detectable but small, as would be the area affected.	The effects on water resources and water quality would be readily apparent. The resulting change to water resources and water quality would cover a relatively wide area.	The effects on water resources and water quality would be readily apparent and would substantially change the character of water resources and quality throughout the landscape (i.e., occurring across several different major land resource areas or ecological units within the planning area).	Impacts would last less than 1 year.	Impacts from the proposed actions would occur for more than 1 year.

Resource	INTENSITY				DURATION	
	Negligible	Minor	Moderate	Major	Short-term	Long-term
Vegetation	Direct or indirect impacts would have perceptible but small changes in the size, integrity, or continuity of vegetation within the Covered Area.	Disturbance, protection, restoration, or rehabilitation of vegetation would be measureable or perceptible but limited in size. The overall viability of plant communities would not be affected and the communities would recover.	Disturbance, protection, restoration, or rehabilitation of vegetation would occur over a relatively wide area. Impacts would cause a change in plant communities (e.g., abundance, distribution, quantity, or quality), but the impacts would remain localized.	Disturbance, protection, restoration, or rehabilitation of vegetation at a landscape level (i.e., occurring across several different major land resource areas or ecological units within the Covered Area).	The physical impacts from the proposed actions would require less than one growing season for the full recovery of plant communities. Beneficial effects would be observed for one growing season.	The physical impact from the proposed actions would require more than one growing season for the full recovery of plant communities. Beneficial effects would be observed for more than one growing season.
Listed, Proposed, and Candidate Species	The proposed actions would have no measurable effects on a listed, proposed, or candidate species.	The effects on listed, proposed, or candidate species are expected to be discountable or insignificant.	The effects on a listed, proposed, or candidate species may occur as a direct or indirect result of the project activities or interrelated or interdependent actions, and the effects would not be discountable or insignificant.	The proposed project activities could jeopardize the continued existence of a listed, proposed, or candidate species or adversely modify critical habitat. A moderate benefit would also occur if the beneficial effects of the project activities would likely reduce the need for the species to be listed in its current category (i.e., delist or downlist).	Impacts would occur for less than 5 years.	Impacts would occur for more than 5 years.
Other Wildlife	The proposed actions would not affect wildlife or the effects would be so slight that they would not be of any measurable or perceptible consequence to the wildlife species' population.	Effects on wildlife populations or habitat would be measurable or perceptible but would be limited in size.	Disturbance, protection, restoration, or rehabilitation of wildlife habitat or populations would occur over a relatively wide area.	Disturbance, protection, restoration, or rehabilitation of wildlife habitat or populations would occur at a landscape level (i.e., occurring across several different major land resource areas or ecological units within the Covered Area).	Impacts would occur for less than 5 years.	Impacts would occur for more than 5 years.

Resource	INTENSITY				DURATION	
	Negligible	Minor	Moderate	Major	Short-term	Long-term
Cultural Resources	The proposed actions would not affect cultural resources or the effects would be below or at the lower levels of detection. Any effects on cultural resources would be slight.	The effects on cultural resources and the affected area would be detectable and localized.	The effects on cultural resources would be readily apparent and would substantially impact the character of a historic property.	The effects on cultural resources would be readily apparent and would significantly change the character of a historic property.	Impacts from the proposed actions would occur for less than 1 year.	Impacts from the proposed actions would occur for more than 1 year.
Socioeconomics	The proposed actions would not affect socioeconomic conditions or the effects would be below the level of detection.	The effects on socioeconomic conditions and the affected area would be detectable and small.	The effects on socioeconomic conditions would be readily apparent. Any effects would result in changes to socioeconomic conditions over a relatively wide area.	The effects on socioeconomic conditions would be readily apparent and would cause substantial changes to socioeconomic conditions in the region (i.e., occurring across several different counties).	Impacts from the proposed actions would last for less than 5 years.	Impacts from the proposed actions would last longer than 5 years.
Land Use	Land owners or users would not likely be aware of the effects associated with the proposed actions.	Land owners or users would likely be aware of the effects associated with the proposed actions; however, the effects would be slight and likely short-term.	Land owners or users would be aware of the effects associated with the proposed actions. The effects would be readily apparent. Land owners or users may be subjected to use restrictions or delays in obtaining permits or leases.	Land owners or users would be highly aware of the effects of the proposed actions and would likely be subjected to significant use restrictions or delays in obtaining permits or leases.	Impacts from the proposed actions would occur for less than 1 year.	Impacts from the proposed actions would occur for more than 1 year.

Resource	INTENSITY				DURATION	
	Negligible	Minor	Moderate	Major	Short-term	Long-term
Prime Farmland	The effects of the proposed actions would not result in the loss of prime farmland.	The effects on prime farmland would be detectable. The loss of prime farmland would affect a relatively small area.	The effects on prime farmland would be readily apparent and the resulting change would cover a relatively large area.	The effects on prime farmland would be readily apparent and would substantially change the productivity of the farmland at a landscape level (i.e., occurring across several different major land resource areas or ecological units within the Covered Area).	The effects would be less than 2 years.	The effects would be more than 2 years.

## Soils

### *Affected Environment*

Soil types and characteristics vary widely within the five-state region supporting LEPC habitat. In general, the Sand Shinnery Oak Prairie ecoregion of LEPC habitat in eastern New Mexico and northwest Texas is found on near-level plains to semi-stabilized dunes where soils are predominately sandy (Service 2012a). Sand Sagebrush Prairie habitat, common in southeastern Colorado, western Oklahoma, and southwest Kansas, is also found primarily on coarse-textured sandy soils in flat to rolling terrain. These sandy soils are typically low in fertility and are susceptible to wind erosion, particularly following surface disturbance, fires, and periods of drought. Sandy soils also are well drained, dry, and can be difficult to revegetate. Mixed Grass and Shortgrass Prairie LEPC habitat in north Texas, Oklahoma, and Kansas occurs on fine, loamy, and coarse-textured soils. Finer textured soils in the eastern portion of LEPC habitat generally have moderate water-holding capacity, higher organic matter content and fertility, and are easier to revegetate.

The soils in the Covered Area have been affected by a variety of land uses. Much of the suitable LEPC habitat is rural property used for ranching, farming, and oil and gas operations. The conversion of native prairie to agricultural lands is one of the components that has resulted in the loss of LEPC habitat. More than 2.4 million acres of native prairie (23 percent) has been converted to cropland within current LEPC focal areas and connectivity zones (Van Pelt et al. 2013). This conversion has impacted soil characteristics as a result of tillage, fertilization, irrigation, grazing, herbicide application, and other agricultural practices. Use of prescribed fire as part of vegetation management for livestock can benefit vegetation suitability for LEPC by limiting the encroachment of red cedar and woody vegetation. However, fire also can affect soil physical and chemical characteristics, water infiltration rates, and erosion. Oil and gas development impacts soils through construction of roads, well pads, processing facilities, pipelines, and ongoing operation and maintenance throughout the productive life of the well until the site is reclaimed. Wind and solar farms, transmission lines, roads, and OHV use have also contributed to short- and long-term habitat losses in the Covered Area. Across LEPC habitat types within the Covered Area, about 9.9 million acres have been impacted by oil and gas development, wind and vertical structures, transmission lines, roads, and other infrastructure. About 23 percent of the impacts are attributable to past and current oil and gas development (Van Pelt et al. 2013).

### *Environmental Consequences*

#### *Alternative A: No Action*

Under the No Action Alternative, soils would continue to be affected by ongoing land uses such as agriculture, livestock grazing, road construction, OHV use, and other land development activities similar to existing conditions. Impacts from oil and gas development are projected to impact about 2.2 to 3.2 million acres of potential LEPC habitat within the Covered Area over the 30-year period ending in 2040 (Jankowitz and Gruber 2007, Van Pelt et al. 2013). Soil management, erosion control, and protection would be governed by current land use practices and existing regulatory mechanisms.

### Implementation of RWP

For lands voluntarily enrolled by the oil and gas industry in the RWP, impacts from oil and gas operations are anticipated to be further reduced due to conservation measures that minimize the area of soil disturbance and soil impacts associated with oil and gas development. The area impacted by oil and gas development over the 30-year period under the conservation strategy of the RWP is anticipated to be less than the 2.2 to 3.2 million acres of potential LEPC habitat projected to be disturbed within the Covered Area over the next 30 years, although a value is difficult to estimate given a variety of factors, such as level of participation in RWP, degree of co-location of facilities, and other factors. Oil and gas operations within previously disturbed areas would reduce new soil disturbances and the potential for erosion and loss of soil productivity. Conservation practices, such as minimizing the number of well pads through the use of directional drilling and other technologies, placement of pipelines and transmission lines along existing disturbed corridors, controlling road access, and minimizing OHV use, would reduce adverse effects on soils. Locating oil and gas facilities to minimize and avoid new disturbances in native undisturbed prairie would all contribute to protecting soil resources and habitat for LEPC. Conservation measures that conserve and enhance existing populations and habitats, restore degraded habitat, and other activities that improve the status of the LEPC would also protect soil resources. While implementation of conservation measures would have short-term adverse impacts on soils associated with any ground-disturbing activities, the impacts would be substantially less than if those conservation measures were not implemented under the RWP.

Overall, soil impacts from direct disturbance as a result of current land management practices and earthwork under the No Action Alternative would be **long-term, minor to moderate, and adverse** on properties not enrolled in the RWP. Impacts from implementation of conservation measures that minimize soil disturbance would be **long-term, minor, and beneficial** for lands voluntarily enrolled in the RWP.

### *Alternative B: Range-wide Oil and Gas CCAA (Proposed Action)*

Under the Proposed Action, impacts on soil resources on lands enrolled under the Range-wide Oil and Gas CCAA would be similar to lands enrolled under the RWP in Alternative A. Range-wide Oil and Gas CCAA Participants would follow the same conservation measures and mitigations as those enrolled under the RWP. The regulatory assurances would likely encourage a high level of enrollment into the Range-wide Oil and Gas CCAA, thereby providing conservation benefits to a larger area than is present under the existing conservation programs (Alternative A). Short-term minor adverse impacts on soils are possible with implementation of conservation measures. Overall, implementation of conservation measures under the Proposed Action would have a **long-term, minor to moderate, and beneficial** effect on soils on properties voluntarily enrolled in the Range-wide Oil and Gas CCAA.

### *Alternative C: Range-wide Oil and Gas CCAA, Excluding New Mexico*

Impacts on soil resources under this alternative would be similar to those described for the Proposed Action. In New Mexico, the existing New Mexico CCAA/CCA contains provisions to minimize impacts on soil resources by limiting areas of new soil disturbance and restoring disturbed habitat, which would benefit soils and LEPC. However, restoration and preservation of additional habitat areas for LEPC under the WAFWA Mitigation Framework through Range-wide Oil and Gas CCAA would not be available in New Mexico. Conservation measures would primarily include avoidance and minimization measures with limited funding for habitat protection and restoration, thus protection of soil resources would likely be less under

Alternative C compared with Alternative B. Overall, conservation and mitigation measures under Alternative C would have a **long-term, minor to moderate**, and **beneficial effect** on soils.

## Water Resources

### *Affected Environment*

The Covered Area is a semiarid climatic zone with annual precipitation in the eastern portion of LEPC habitat ranging from about 20 to 25 inches compared with about 15 to 20 inches in the western portion of their range (Western Regional Climate Center 2013). Precipitation supports native plant communities adapted to the semiarid climate. Irrigation is required for much of the cropland and the most productive rangeland. The Ogallala Aquifer (also called the High Plains Aquifer) is the primary source of water for agricultural use in the Covered Area; however, ground water withdrawals are currently exceeding recharge. The Ogallala Aquifer Initiative is a NRCS program with measures to reduce aquifer use, improve water quality, and enhance the viability of croplands and rangelands in the Covered Area and beyond (NRCS 2013a).

The primary large rivers in the Covered Area include the Arkansas River, Cimarron River, Canadian River, and Red River. Numerous smaller perennial, ephemeral, and intermittent streams also provide water for irrigation, municipal use, livestock, fish, and wildlife. Population growth, agricultural, industry, and economic growth have increased the demand for ground water and surface water in the region. Hydrologic function varies with site-specific conditions, but undeveloped areas with deeper soils and established plant communities help support natural hydrologic processes. Non-Federal rangelands in most of the Covered Area have experienced less than a 10-percent change in hydrologic function from reference conditions (NRCS 2010).

Surface water quality in the Covered Area varies with adjacent land uses in the respective watersheds. Ground water quality from the Ogallala Aquifer is generally suitable for irrigation and public supply, but leakage down inactive irrigation wells has resulted in the introduction of nitrate and dissolved solids in some areas (NRCS 2009). Surface and ground water quality is affected by fertilizer, pesticides, feedlots, and other agricultural operations. Water quality near urban development is affected by municipal use, nonpoint stormwater runoff, and wastewater treatment plant discharges. Development of oil and gas requires water for drilling and fracking and often generates produced water from the well that requires storage, treatment, and discharge. Earthwork for preparation of well pads, roads, pipelines, and other infrastructure can result in erosion that contributes sediment and other pollutants to streams. Accidental discharges of produced water or drilling fluids also has the potential to introduce contaminants into water bodies.

### *Environmental Consequences*

#### *Alternative A: No Action*

Under the No Action Alternative, management of water resources would continue under current practices. Surface water and ground water withdrawals would continue to meet agricultural, municipal, and industrial uses similar to existing conditions and according to existing regulatory mechanisms. Water quality would continue to be affected by land management practices on cropland, rangeland, urban development, and other industrial activities. Ongoing and future oil and gas development impacting 2.2 to 3.2 million acres (Van Pelt et al. 2013) in the Covered

Area has the potential to impact water resources from ground disturbances, water use and discharges, and accidental spills of petroleum products or contaminants.

#### **Implementation of RWP**

For lands voluntarily enrolled by the oil and gas industry in the RWP, impacts on water resources from oil and gas operations are anticipated to be reduced compared to operations proceeding without enrollment. Conservation measures that minimize and avoid new disturbances on native prairie and undeveloped land would benefit hydrologic processes. Habitat restoration activities would enhance and restore the function and integrity of the rangeland ecosystem and contribute to minimizing runoff and erosion and, therefore, improve water quality.

Implementation of conservation measures would also contribute to maintaining natural hydrologic functions and improving water quality. Short-term minor adverse impacts on water resources are possible with implementation of conservation measures such as burying electrical lines and soil preparation for revegetation, but the impacts would be less than if the conservation strategy of the RWP was not implemented.

Overall, impacts on water resources and quality for lands managed under current practices would be **long-term, minor to moderate, and adverse**. Implementation of conservation measures that reduce ground disturbance and improve hydrologic function would have a **long-term, minor, and beneficial** effect on water resources for lands voluntarily enrolled in the RWP.

#### *Alternative B: Range-wide Oil and Gas CCAA (Proposed Action)*

Under the Proposed Action, impacts on water resources on lands enrolled under the Range-wide Oil and Gas CCAA would be similar to lands enrolled under the RWP in Alternative A. Range-wide Oil and Gas CCAA Participants would follow the same conservation measures and mitigation as those enrolled under the RWP. The regulatory assurances would likely encourage a high level of enrollment into the Range-wide Oil and Gas CCAA, thereby providing conservation benefits to a larger area than is present under the existing conservation programs (Alternative A). Short-term minor adverse impacts on water resources are possible with implementation of conservation measures. The conservation measures under the Proposed Action would have **long-term, minor to moderate, and beneficial** effects on water resources.

#### *Alternative C: Range-wide Oil and Gas CCAA, Excluding New Mexico*

Impacts on water resources under Alternative C would be similar to those described for the Proposed Action. The existing New Mexico CCAA/CCA contains provisions to minimize impacts on water resources by limiting areas of new disturbance and limited funding for restoring disturbed habitat that would benefit water resources and water quality. Less restoration and preservation of additional habitat areas for LEPC would be implemented in New Mexico as compared to the proposed action, thus beneficial effects on water resources would likely be less under Alternative C than under Alternative B. The conservation measures under this alternative would have **long-term, minor to moderate, and beneficial** effects on water resources.

## **Vegetation**

### *Affected Environment*

LEPC occupied range coincides with four habitat ecoregions: 1) Sand Shinnery Oak Prairie in the eastern New Mexico-northwest Texas panhandle; 2) Sand Sagebrush Prairie in southeastern Colorado, southwestern Kansas, and western Oklahoma; 3) Mixed Grass Prairie in the northeast

Texas panhandle, northwest Oklahoma, and south-central Kansas; and 4) Shortgrass Prairie/CRP Mosaic in northwestern Kansas and eastern Colorado.

Much of the vegetation in these ecoregions has been affected by land uses such as conversion of native habitats to agriculture and pasture uses, fire suppression, grazing practices such as overgrazing (leading to homogenous habitats), loss of native herbivores (such as prairie dogs), and oil and gas development. Crop production has resulted in replacement of the native plant communities with irrigated or nonirrigated crops in many locations. Some rangelands have been planted with nonnative species, such as Old World bluestems (*Bothriochloa* spp.). Invasive plant species have become established in much of the Covered Area, including Russian thistle (*Salsola iberica*), cheatgrass (*Bromus tectorum*), eastern red cedar (*Juniperus virginiana*), and Johnson grass (*Sorghum halepense*). CRP fields occur throughout the Covered Area and are comprised of lands previously seeded with either native or nonnative grasses.

### *Sand Shinnery Oak Prairie*

The Sand Shinnery Oak Prairie ecoregion is comprised of 49 percent grassland, 41 percent shrubland, 9 percent cropland, and 1 percent other cover types (Van Pelt et al. 2013, Appendix D). Common plant species include shinnery oak (*Quercus havardii*), sand sagebrush (*Artemisia filifolia*), little bluestem (*Schizachyrium scoparium*), sand bluestem (*Andropogon hallii*), soapweed yucca (*Yucca glauca*), purple threeawn (*Aristida purpurea*), hairy grama (*Bouteloua hirsuta*), black grama (*Bouteloua eriopoda*), fall witchgrass (*Digitaria cognata*), New Mexico needlegrass (*Stipa neomexicana*), and dropseeds (*Sporobolus* spp.). Grasslands occur throughout this ecoregion in flat and rolling plains interspersed within shinnery oak-dominated areas. The dominant shrub species in grassland areas is commonly soapweed yucca. Other common species include sand bluestem, giant dropseed (*Sporobolus giganteus*), snakeweed (*Gutierrezia*), honey mesquite (*Prosopis glandulosa*), tobosa (*Hilaria mutica*), little bluestem, sand sagebrush, catclaw mimosa (*Mimosa aculeaticarpa* var. *biuncifera*), shinnery oak, and collegethrow (*Hymenopappus flavescens*). Agricultural fields and CRP fields are also interspersed in this ecoregion. CRP fields are made up of lands previously seeded with either native or nonnative grasses.

### *Sand Sagebrush Prairie*

The Sand Sagebrush Prairie ecoregion is comprised of 46 percent grassland, 23 percent shrubland, 31 percent cropland, and less than 1 percent other cover types (Van Pelt et al. 2013, Appendix D). The vegetation of this ecoregion is characterized by a sparse to moderately dense woody layer dominated by sand sagebrush. The sand sagebrush shrubs are typically scattered within a sparse to moderately dense layer of tall, mid-, or short grasses. Associated plant species vary with geography, precipitation, disturbance, and soil texture. Grass species such as sand bluestem, sand dropseed (*Sporobolus cryptandrus*), prairie sandreed (*Calamovilfa longifolia*), giant sandreed (*Calamovilfa gigantea*), needle and thread (*Hesperostipa comata*), and grammas (*Bouteloua* spp.) are often present. Other shrub species also may occur including soapweed yucca, honey mesquite, and three-leaf sumac (*Rhus trilobata*).

### *Mixed Grass Prairie*

The Mixed Grass Prairie ecoregion is comprised of 77 percent grassland, 9 percent shrubland, 12 percent cropland, and 2 percent other cover types (Van Pelt et al. 2013, Appendix D). The vegetation is typically blue grama and buffalograss (*Buchloe dactyloides*), with blue grama as the dominant species. Other common plant species include sideoats grama (*Bouteloua*

*curtipendula*), threeawns (*Aristida* spp.), sand dropseed, vine-mesquite (*Panicum obtusum*), little bluestem, sand bluestem, Indiangrass (*Sorghastrum nutans*), switchgrass (*Panicum virgatum*), Canada wildrye (*Elymus canadensis*), and western wheatgrass (*Pascopyrum smithii*). Shrubs such as sand sage, shinnery oak, soapweed yucca, pricklypear (*Opuntia* spp.), winterfat (*Krascheninnikovia lanata*), and three-leaf sumac also occur in this plant community. CRP lands in the mixed grass prairie are often planted with mid- and tall grasses such as little bluestem, big bluestem, switchgrass, western wheatgrass, and nonnative species such as Old World bluestem.

### *Shortgrass/CRP Mosaic*

The Shortgrass/CRP Mosaic ecoregion is comprised of, less than 1 percent shrubland, 39 percent cropland, and less than 1 percent other cover types (Van Pelt Appendix D). The vegetation is a mixture of native shortgrass prairie and CRP grasslands planted with a mix of native warm season grasses. Blue grama and buffalograss are the dominant species in the shortgrass prairie. Sideoats grama, hairy grama, little bluestem, and western wheatgrass are also present. CRP lands are often planted with mid- and tall grasses such as little bluestem, big bluestem, switchgrass, western wheatgrass, and nonnative species such as Old World bluestem.

## ***Environmental Consequences***

### ***Alternative A: No Action***

Under the No Action Alternative, current vegetation management practices would continue. Brush control methods such as herbicide application and prescribed fire would continue to be implemented on non-Federal lands to improve forage for livestock and wildlife within the Covered Area. Impacts on vegetation from energy development activities, recreational use, livestock grazing, and agricultural activities would continue at current levels per existing land use practices and state and local regulations. Impacts from oil and gas activities would include direct loss of vegetation and degradation or changes to vegetation communities from introduction of noxious weeds. Existing guidelines for oil and gas activities in New Mexico include recommended mitigations to control undesirable plant species, which would reduce impacts on vegetation (Jankowitz and Gruber 2007). Based on Annual Energy Outlook projections produced by the U.S. Energy Information Administration, oil and gas activities are expected to impact 2.2 to 3.2 million acres of potential LEPC habitat (sand shinnery oak prairie, sand sagebrush prairie, mixed grass prairie, and shortgrass/CRP mosaic) in the Covered Area over the 30-year period ending in 2040 (Van Pelt et al. 2013).

Non-Federal property owners would have little incentive to voluntarily protect and manage plant communities and prevent habitat fragmentation for the benefit of the LEPC. Conservation of LEPC habitat on non-Federal lands would not necessarily be part of the considerations in any management of existing vegetation within the Covered Area. Any protection of vegetation that provides habitat for the LEPC would be incidental to existing land uses or through the desires of individual property owners.

### **Implementation of RWP**

For lands voluntarily enrolled by the oil and gas industry in the RWP, impacts on vegetation resources from oil and gas operations are anticipated to be further reduced. Implementation of the conservation measures such as brush management, prescribed grazing, range planting, prescribed burning, and grassland establishment would assist with the conservation and restoration of those plant communities preferred by the LEPC on Enrolled Properties. In addition, habitat fragmentation and the direct loss of suitable habitat would be reduced on

Enrolled Properties under the RWP or on other lands where vegetation and habitat would be restored or enhanced with contributed funds. Implementation of conservation measures would allow vegetation management from energy development activities to occur through a comprehensive landscape-level approach. Large contiguous blocks of suitable habitat would be targeted for improvement under the RWP to provide the greatest benefit to LEPC. Mitigation practices such as prescribed fire and prescribed grazing on lands included within the WAFWA Mitigation Framework would result in temporary alteration of vegetation, although the impacts would be substantially less than if these conservation measures were not implemented under the RWP, and would result in a benefit to vegetation over the long term. Participants would have an incentive to conserve and manage plant communities for the benefit of LEPC and prevent habitat fragmentation. Reclamation efforts on abandoned oil and gas facilities within the Covered Area would reduce fragmentation, restore native habitat, and promote LEPC habitat above and beyond that which are currently occurring.

Overall, impacts on vegetation managed under current practices would be **long-term, minor to moderate, and adverse**. Implementation of conservation measures that reduce ground disturbance and improve vegetative health would have a **long-term, minor, and beneficial** effect on vegetation under the No Action Alternative.

#### *Alternative B: Range-wide Oil and Gas CCAA (Proposed Action)*

Under the Proposed Action, impacts on vegetation on lands enrolled under the Range-wide Oil and Gas CCAA would be similar to lands enrolled under the RWP in Alternative A. Range-wide Oil and Gas CCAA Participants would follow the same conservation measures and mitigation as those enrolled under the RWP. The regulatory assurances would likely encourage a high level of enrollment in the Range-wide Oil and Gas CCAA, thereby providing conservation benefits to a larger area than is present under the existing conservation programs (Alternative A). Short-term minor adverse impacts on vegetation are possible with implementation of conservation measures. Overall, the conservation measures under the Proposed Action would have **long-term, moderate, and beneficial** effects on vegetation.

#### *Alternative C: Range-wide Oil and Gas CCAA, Excluding New Mexico*

Impacts on vegetation under Alternative C would be the same as under Alternative B in Colorado, Kansas, Oklahoma, and Texas. In New Mexico, restoration and preservation of additional vegetation that provides habitat for LEPC under the WAFWA Mitigation Framework would not be implemented range-wide. Mitigation measures would include only avoidance and minimization by Participants in the New Mexico CCA/CCAA (Service 2012a), thus long-term losses of vegetation could potentially be greater under Alternative C compared with Alternative B. Implementation of conservation and mitigation measures under Alternative C would have a **long-term, moderate, and beneficial** effect on vegetation.

## Listed, Proposed, and Candidate Species

### *Affected Environment*

All federally listed threatened, endangered, proposed, and candidate species (listed and candidate species) known to occur within the Covered Area (Appendix C) were reviewed to determine which species may be impacted by implementation of the alternatives. Most of these listed species have different habitat requirements than LEPC and it is unlikely that

lands occupied by these other listed and candidate species would be enrolled in the Range-wide Oil and Gas CCAA. Thus, only those species that may be impacted by the Range-wide Oil and Gas CCAA are analyzed in this chapter (Table 3). In addition, there is no critical habitat for any federally listed species in the Covered Area.

**Table 3. Listed and candidate species potentially impacted by implementation of the alternatives.**

Species	Status <sup>1</sup>	Location
Lesser prairie-chicken	C	CO, KS, NM, OK, TX
Sprague's pipit ( <i>Anthus spragueii</i> )	C	NM, TX
Northern aplomado falcon ( <i>Falco femoralis septentrionalis</i> )	E-EXP	NM
Black-footed ferret ( <i>Mustela nigripes</i> )	E, E-EXP	CO, KS, NM, OK, TX

<sup>1</sup>Status under the Endangered Species Act: E – Endangered. E-EXP - Endangered, experimental nonessential population; C - Candidate for listing (Service 2013a)

### *Lesser Prairie-Chicken (Candidate)*

The LEPC is a distinct species of North American prairie grouse that inhabits rangelands dominated primarily by shinnery oak (*Quercus havardii*), bluestem, and sand sagebrush (*Artemisia filifolia*)-bluestem vegetation types (Bent 1932; Copelin 1963; Snyder 1967; Merchant 1982; Haukos 1988; Behney et al. 2010). Major factors affecting the status of the LEPC are conversion, degradation, and fragmentation of habitat. The conversion of native sand sagebrush and shinnery oak rangeland to improved pastures and cropland has been documented as an important factor in the decline of the LEPC. A mixture of heavily, moderately, and lightly grazed and ungrazed native rangelands are all essential components of LEPC habitat, and are most beneficial when they occur in a mosaic pattern on a landscape scale. However, in many rangelands, an insufficient amount of lightly grazed or ungrazed habitat is available to support successful LEPC nesting. Livestock grazing that leaves less than adequate residual cover remaining in the spring is detrimental to LEPC populations because grass height is reduced below that necessary for nesting cover, and desirable food plants are markedly reduced (TPWD 2005).

The current EOR for LEPC is more than 19,776,000 acres with more than 41,000,000 acres within the EOR+10 (Van Pelt et al. 2013). The RWP estimates that approximately 30 percent of the area within the Covered Area is currently suitable habitat for LEPC. Based on a Maximum Entropy Lek Habitat Model developed by USGS (Jarnevich et al. 2011), the RWP estimates there are currently 12,063,048 acres of suitable habitat range-wide (Van Pelt et al. 2013). Aerial surveys in 2013 estimated 17,616 LEPCs within the five-state Covered Area, down from 34,440 in 2012 (McDonald et al. 2013).

In October 2011, the Service published a Candidate Notice of Review that determined that the LEPC is warranted for listing under the ESA but precluded by higher listing priorities. On December 11, 2012, the Service found that a number of existing and expanding threats are currently outside of the regulatory authority of the states to control the proposed listing LEPC as threatened (77 FR 73828).

*The Service (2012a) identified the following threats in their listing proposal:*

- *Habitat conversion from agriculture*
- *Livestock grazing*
- *Wind power and energy transmission development and operations*
- *Petroleum production*
- *Shrub control and eradication*
- *Altered fire regimes and invasion by woody plants*
- *Climate change and extreme weather events*
- *Collision mortality*
- *Disease and parasites*
- *Predation*
- *Hunting losses*
- *Insecticides*
- *Hybridization*
- *Competition from ring-necked pheasants*
- *Roads, pipelines, and other linear features*

### *Sprague's Pipit (Candidate)*

The Sprague's pipit is a small songbird that is endemic to the Northern Great Plains (Robbins and Dale 1999). Sprague's pipit both breeds and winters on the North American prairie. The breeding range includes parts of Montana, North Dakota, South Dakota, and Minnesota and parts of Canada, while its wintering range includes northern Mexico and parts of southern Arkansas, northwest Mississippi, southern Louisiana, southeast Arizona, Texas, and southern Oklahoma (Robbins and Dale 1999) along the southern edge of the Covered Area. Breeding bird surveys suggest the species is in steep decline (Peterjohn and Sauer 1999) with an 80-percent decrease from 1966 through 2007 in its U.S. and Canadian breeding range (Sauer et al. 2008).

In September 2010, the Service found that Sprague's pipit was warranted for listing under the ESA but precluded by other listing priorities. While improper grazing and mowing can have impacts on Sprague's pipit, overall habitat fragmentation from conversion of native prairie to other uses is likely having greater impacts on the species (75 FR 56028).

### *Northern Aplomado Falcon (Endangered; Experimental Nonessential Population)*

A reintroduced population of the northern aplomado falcon (*Falco femoralis septentrionalis*) has been designated as experimental nonessential within New Mexico and Arizona according to Section 10(j) of the ESA. In recent years, individual falcons have been observed in the western portion of the Range-wide Oil and Gas CCAA Covered Area (BLM 2008). Suitable habitat for the northern aplomado falcon includes palm and oak savannahs, various desert grassland associations, and open pine woodlands (Jonsgard 1990; Keddy-Hector 2000). The essential habitat elements appear to be open terrain with scattered trees, relatively low ground cover, an abundance of insects and small to medium-sized birds, and a supply of nest sites. It is not anticipated that northern aplomado falcons occupy lands enrolled in the Range-wide Oil and Gas CCAA due to the Covered Area being at the eastern edge of the historic range of the species and differences in habitat requirements between this species and the LEPC; however, migratory or foraging falcons could occasionally occur within the Covered Area.

### *Black-footed Ferret (Endangered; Experimental Nonessential Population)*

The black-footed ferret is an endangered carnivore and is the only ferret species native to North America. Ferrets prey primarily on prairie dogs (*Cynomys* spp.) and use prairie dog burrows for shelter and denning (Henderson et al. 1969; Hillman and Linder 1973; Forrest et al. 1985).

Because ferrets depend almost exclusively on prairie dogs for food and their burrows for shelter, and the ferret's current range directly overlaps that of certain prairie dog species (Anderson et al. 1986), it is commonly assumed that ferrets were historically endemic to the range of three prairie dog species (Gunnison's, white-tailed, and black-tailed).

Today, largely due to a number of anthropogenic factors, including land conversion, poisoning, and introduced disease, most of the prairie dog species occur in highly fragmented subpopulations (Luce 2003). The same factors that have impacted prairie dogs have also impacted ferrets. While poisoning of prairie dogs is regarded as a major factor in the historical decline of prairie dogs and black-footed ferrets (Forrest et al. 1985; Cully 1993; Forest and Luchsinger 2005), currently most poisoning is more limited in nature and is undertaken by property owners at localized locations (Service 2009). However, sylvatic plague, caused by a nonnative bacterium, can be devastating to both prairie dogs and ferrets. Since 2005, plague has been detected in prairie dogs in all 12 states throughout the historical range of the ferret (Abbot and Roche 2012).

All of these factors led to the decline in ferret populations and by 1987, the last remaining wild black-footed ferrets were taken into captivity for captive breeding purposes and released back into the wild (Hutchins et al. 1996; Garelle et al. 2006). As of 2012, about 800 ferrets exist at 19 reintroduction sites across their historical range (Service 2013b). Currently there are no known wild or introduced populations of black-footed ferrets within the Covered Area, although a potential reintroduction site has been identified in Logan County, Kansas, in the north end of the Covered Area (Black-footed Ferret Recovery Implementation Team 2013). Captive breeding and the release of surplus ferrets continues in efforts to establish more ferret populations throughout their range.

### *Environmental Consequences*

The following analyses of the environmental consequences of each alternative are focused on LEPC. Sprague's pipit and LEPC inhabit open native grasslands and Sprague's pipit and northern aplomado falcon may migrate or forage within the Covered Area. All three species are adversely affected by habitat fragmentation from conversion of native prairie to other uses. The effects on all three species, both adverse and beneficial, would be similar under all alternatives.

Both adverse and beneficial effects on black-footed ferrets would be negligible under all alternatives because there are currently no known populations of ferrets within the Covered Area and there is very little potential for future overlap of occupied ranges of ferrets and LEPC, either through reintroduction or range expansion. Any adverse or beneficial effects, either direct or indirect, of any alternative on ferrets would be negligible.

### *Introduction*

All three alternatives include conservation measures and programs that avoid, minimize, and mitigate adverse impacts of oil and gas development; however, these measures vary widely by the type of measure, level of avoidance/minimization, mitigation requirements, enforcement, and funding mechanisms. Some mitigation measures are presented as voluntary guidelines,

whereas others are regulated by state agencies (Colorado and Kansas). Some regulated conservation measures in Colorado are more voluntary in nature on private lands. Table 4 provides a comparison by alternative of some of the more pertinent conservation measures.

All of these conservation activities would positively impact LEPC and other listed and candidate species, although to varying degrees, as shown in Table 4. Some of the existing conservation measures and state guidelines and regulations are more protective or restrictive than the conservation measures of the RWP and others are less protective. Overall, the conservation measures of the RWP and the New Mexico CCAA/CCA are more comprehensive and consistently applied than the existing state programs. Additionally, because the RWP assesses impacts and establishes mitigation requirements across the entire range of LEPC, these conservation measures would likely be more effective. Because the RWP would be available to property owners under all action alternatives, the primary differences between the alternatives is the level of regulatory certainty provided to Participants and the number of acres and Participants anticipated to enroll in the Range-wide Oil and Gas CCAA or other conservation program under each alternative.

**Table 4. Existing and proposed conservation measures by alternative.**

	Alternative						
	All (No Action)						Range-wide Oil and Gas CCAA
Conservation Measure	RWP	Colorado	Kansas	Oklahoma	Texas	New Mexico CCA/CCAA	
Management Plan	Yes	Optional	No	No	No	Yes	Same as RWP
No Surface Occupancy near Leks	1.25 miles from leks	0.6 mile from leks	0.125- to 0.24-mile setback	No restriction	Voluntary: 1 to 2 miles from lek	1.5 miles from leks	Same as RWP
Avoid Sensitive Wildlife Areas	Focal areas and connectivity zones	2.2 miles from lek and focal areas		Preplanning to avoid LEPC		Avoids SDL habitat	Same as RWP
Seasonal Restrictions (dates)	1.25 miles from lek (March 1 to July 15)	2.2 miles from lek (March 15 to June 15)	None	Voluntary restriction between 3:00 and 9:00 a.m. (March 1 to May 1)	Voluntary restriction March 1 to July 31	March 15 to June 15	Same as RWP
Incentives to Co-locate Facilities and Avoid High-quality Habitat	Yes	Yes	No	Voluntary	No	Yes	Same as RWP
Well Density (maximum)	No restriction	1 per section	6 per section	No restriction	No restriction	No restriction	Same as RWP
Bury Power Lines (distance)	1.25 miles from lek	Yes	No	Voluntary	No	2 miles of a lek	Same as RWP
Mark Fences	0.25 mile from lek	No	No	Voluntary	No	2 miles of a lek	Same as RWP

	Alternative						
	All (No Action)						Range-wide Oil and Gas CCAA
Conservation Measure	RWP	Colorado	Kansas	Oklahoma	Texas	New Mexico CCA/CCAA	
Raptor Deterrents	Optional – 1.25 miles from lek	No	No	No	Voluntary	No	Same as RWP
Mitigation	Establishes Mitigation Framework and Fees	Reclaim disturbed areas	Reclaim disturbed areas	Reseed disturbed areas (voluntary)	Remediate inactive facilities; compensate for impacts (voluntary)	Reclaim disturbed areas/voluntary enhancement	Same as RWP
Enforcement	WAFWA compliance monitoring	CPW	KCC	No	No	CEHMM monitoring/enforcement	Same as RWP
Assurances Provided <sup>1</sup>	No	No	No	No	No	Yes	Yes

<sup>1</sup> So long as Participants comply with the terms of the Range-wide Oil and Gas CCAA and their CI, they will not incur additional land use restrictions on Enrolled Properties and will receive incidental take authorization for Covered Activities should the LEPC become listed.

### *Alternative A: No Action*

Under the No Action Alternative, management of listed and candidate species would continue under current practices. Those current practices include conservation measures already in place for oil and gas activities at the Federal, state, and local levels (including the RWP, New Mexico CCAA/CCA, and others), as summarized in the No Action Alternative in Chapter 2.

The conservation practices under current management, including CCAA/CCAs; voluntary guidelines (Oklahoma, New Mexico, and Texas); and regulations (Colorado and Kansas) would continue to encourage measures that avoid and minimize habitat fragmentation from oil and gas activities. Some measures are focused on habitat in general and alleviate impacts on all listed and candidate species. Other measures are intended to alleviate impacts specific to LEPC, but would also apply to the other listed and candidate species to the extent that habitat overlaps. Most recently, as of October 2013, the RWP has become an available conservation plan for voluntary management of oil and gas and other actions for the LEPC.

A variety of oil and gas development actions have the potential to adversely affect listed and candidate species and LEPC, including direct mortality from collisions, habitat loss, habitat fragmentation, and displacement from suitable habitat because the species tends to avoid developed areas, as summarized in the Service's proposed listing rule for the LEPC (Service 2012a). Several sources have documented avoidance of many types of infrastructure by nesting LEPC hens (Pitman et al. 2005; Hagen et al. 2010; Pruett et al. 2009). Beyond direct mortality, habitat loss, and reduced reproduction, OHV travel, mineral exploration, and construction activities may also disrupt lekking behavior, breeding, and nest and brood attendance. In addition, construction and maintenance activities related to oil and gas development may result in increased travel on primary and secondary roads that lead to increased disturbance beyond what is expected from these roads. As described in the *Vegetation* section in this chapter, impacts from oil and gas activities would include direct loss of vegetation and degradation or changes to vegetation communities and LEPC habitat.

Based on Annual Energy Outlook projections produced by the U.S. Energy Information Administration, oil and gas activities are expected to impact 2.2 to 3.2 million acres of potential LEPC habitat within the EOR+10 over a 30-year period (Table 5) (Van Pelt et al. 2013).

**Table 5. Estimation of the acres impacted by new wells based on an average 17.94-acre impact per well pad (under low and high oil and gas price scenarios).**

Acres of Potential Habitat Impacted						
Ecoregion	EIA Low Price Scenario*			EIA High Price Scenario*		
	10-Year	20-Year	30-Year	10-Year	20-Year	30-Year
<i>Shortgrass</i>	109,208	218,415	327,623	159,763	319,527	479,300
<i>Sand Sage</i>	125,818	251,635	377,453	184,063	368,126	552,200
<i>Mixed Grass</i>	213,457	426,914	640,371	312,273	624,546	936,838
<i>Shinnery Oak</i>	284,896	569,792	854,689	416,784	833,568	1,250,378
<b>TOTAL</b>	<b>733,379</b>	<b>1,466,756</b>	<b>2,200,136</b>	<b>1,072,883</b>	<b>2,145,767</b>	<b>3,218,716</b>

\*EIA = U.S. Energy Information Administration

This approach for estimating take of habitat includes several conservative assumptions that suggest the actual magnitude of impacts would be significantly less than represented in Table 5 (Van Pelt et al. 2013). This analysis assumes that any development action that occurs outside of preexisting impact buffers may result in habitat impacts and incidental take. However, much of

the land within the EOR is not suitable habitat, and development within those areas would not result in adverse effects (Van Pelt et al. 2013). Additionally, implementing current management and conservation practices, including regulated conservation buffers in Colorado and Kansas, would further reduce adverse effects on LEPC and other listed and candidate species. Estimating the potential take of LEPC based on the anticipated impacted acreage is difficult because of these conservative assumptions, annual LEPC population fluctuations, and limited knowledge of LEPC seasonal ranges and the future locations of oil and gas activities.

The conservation measures and regulatory authority (volunteer versus regulatory) vary widely across the states. Continued implementation of the New Mexico CCAA/CCA would include conservation measures that reduce and/or eliminate threats on Federal lands and non-Federal lands providing conservation benefits to LEPC on enrolled lands in New Mexico. Reclamation efforts on abandoned pads, roads, and caliche pits on BLM lands in New Mexico and private lands enrolled in the New Mexico CCAA/CCA would continue to address and reduce habitat fragmentation, restore native habitat, and promote LEPC conservation only in New Mexico (BLM 2008).

#### **Implementation of RWP**

The RWP applies across all the states in the LEPC range, but enrollment is voluntary. At this writing, 1,838,071 acres have been enrolled into the RWP by the oil and gas industry; however, that level enrollment is largely with industry's expectation that the enrolled lands can be transferred to the Range-wide Oil and Gas CCAA if the Permit is issued. The level of RWP enrollment is difficult to predict but it is not likely to be as high in the No Action alternative without the incentive of regulatory assurances that the Range-wide Oil and Gas CCAA would provide. Thus, oil and gas development would likely continue at current rates. Suitable habitat for listed and candidate species within the Covered Area, including LEPC focal areas and connectivity zones, would continue to be lost and fragmented range-wide, but some of those impacts may be diminished and offset and additional conservation benefits may occur, depending on the level of enrollment in the RWP. The following is a description of the type of impacts and benefits that would occur under implementation of the RWP, but does not provide a quantification of the level expected impacts and benefits.

For lands voluntarily enrolled by the oil and gas industry in the RWP, the conservation strategy is summarized as follows:

- Encourages avoidance and protection of focal areas, connectivity zones, and areas within 1.25 miles of known leks.
- Implements seasonal use restrictions to minimize harassment related to Covered Activities during key breeding, nesting, and brooding periods.
- Concentrates all development activities (e.g., roads, power lines, and facilities) within or near already altered or cultivated areas.
- Encourages development in undeveloped native grasslands and shrublands so that large areas of undisturbed wildlife habitat remain.
- Concentrates the placement of compensation actions through off-site mitigation in focal areas and connectivity zones.
- Implements practices such as directional drilling and clustering wells to reduce impacts on LEPC.

The anticipated effects on the LEPC from implementation of the RWP for oil and gas development area are as follows.

### ***Threat Removal and Minimization***

The conservation strategy set forth in the RWP for oil and gas activities includes implementing specific conservation measures to eliminate or reduce threats to LEPC. The conservation strategy promotes the avoidance of high-quality habitat (i.e., focal areas, connectivity zones, and active leks) by oil and gas development in which oil and gas operators pay higher mitigation fees for development in areas of higher quality habitat and, conversely, pay lower mitigation fees for development in areas of lower quality habitat. For example, development of a five-acre well pad in high-quality habitat in a focal area (i.e., CHAT 1) in the sand sagebrush ecoregion could result in \$41,764 in mitigation fees. A well pad larger than five acres could result in higher mitigation fees because the impact buffer would be measured at the edge of the well pad rather than the center. Conversely, development of the same well pad in low-quality habitat in a CHAT 4 area in the sand sagebrush ecoregion could result in only \$1,336 in mitigation fees. This incentivized conservation system is anticipated to result in a reduction of future adverse impacts on higher quality LEPC habitat, although actual amounts are difficult to calculate because the level of voluntary enrollment in the RWP under the No Action alternative is difficult to estimate.

The RWP conservation strategy also provides for the avoidance and minimization of disturbance of birds in occupied habitat for most operations, with the exception of during emergency situations and during necessary maintenance. During the reproductive season, active leks will be avoided by 1.25 miles; this distance is expected to encompass 85 percent of the area used by nesting females around a lek (Pitman et al. 2005). Therefore, this conservation measure will allow for the disturbance of female birds that are nesting outside the 1.25 mile avoidance buffer area, affecting an approximated 15 percent of the nesting area around an active lek. Guidance for avoidance during seismic operations and year-round noise abatement measures will further reduce the disturbance impacts on LEPC. The co-location of facilities and infrastructure such as well pads, roads, pipelines, distribution lines and other features is anticipated to further reduce the impact from habitat loss. Burying power lines and installing fence markers will reduce the threat of LEPC collisions with these structures.

The identification and subsequent conservation of habitat within the focal areas and connectivity zones will further provide for the maintenance of large blocks of habitat needed by LEPC. The habitat goal in the RWPs for focal areas and connectivity zones that limits the development impacts in the focal areas and connectivity zones to no more than 30 percent and 60 percent, respectively, further provides for the maintenance of large blocks of LEPC habitat.

The level of benefits of these conservation measures in avoiding and reducing impacts from oil and gas development is difficult to estimate because it depends on the level of voluntary enrollment in the RWP. Regardless, the level of enrollment in the RWP under the No Action alternative is anticipated to be lower than in the Range-wide Oil and Gas CCAA, because the RWP does not offer the same level of ESA regulatory certainty for activities affecting the LEPC in exchange for implementing conservation measures.

***Mitigation - Habitat Maintenance, Enhancement, and Restoration***

While this conservation strategy does allow for development in areas of high-quality habitat, it is anticipated that the differences in mitigation fees will be a disincentive to develop in high-quality habitat and result in focusing the development into areas of lower quality habitat. Furthermore, regardless where development occurs, the mitigation fees have been calculated to provide the generation of offset (mitigation) units in the same or higher quality habitat, which will further benefit the LEPC. A variety of maintenance, enhancement, and restoration activities would be implemented under the RWP and would be funded through its mitigation fees. These activities include, but are not limited to, grazing management, burning, reseeding disturbed areas, and implementing vegetation/weed control. Mitigation offset units under the RWP mitigation framework would be generated through implementation of restoration practices that include seeding previously tilled ground with an approved mix of native grasses and forbs or controlling tall woody vegetation, such as red cedar and mesquite, through an approved brush management treatment. These funds would be expended in the highest priority focal areas and connectivity zones, creating large contiguous blocks of native and restored habitats benefiting all listed and candidate species. Mitigation may occur either on the Enrolled Properties or on other lands within the Covered Area to maximize the conservation benefit. Impacts from habitat maintenance, enhancement, and restoration may include temporary or permanent abandonment of occupied habitat, short-term loss of habitat, and temporary displacement of LEPC and other wildlife species during active restoration but are expected to be minor and generally of short duration and would be offset by benefits provided by the mitigation

The mitigation framework of the RWP would ensure that all surface disturbance impacts on Enrolled Properties would be mitigated at a 2:1 offset to impact unit ratio, resulting in a long-term benefit in perpetuity. The value of 25 percent of the habitat offset units would be targeted toward permanent conservation easements to support long-term or dynamic conservation and population strongholds. The remaining 75 percent of the conservation efforts will be targeted toward short-term contracts (5 to 10 years). The inclusion of habitat conservation under long-term agreements (permanent or greater than 30-year terms) would be encouraged under this framework, further resulting in large contiguous blocks of LEPC habitat.

Mitigation offset units must be secured prior to the commencement of Impact Activities, with the exception of the oil and gas activities during the Waiver Period in the first year of implementation of the RWP. In this case, oil and gas operators will be able to conduct impact activities prior to securing offset units. During the first year of the RWP, impacts would occur to LEPC habitat; however, these impacts would need to be offset by the end of the Waiver Period (March 30, 2015). No further impacts would be allowed at the end of the Waiver Period until impacts have been offset.

Implementation of these conservation measures of the RWP would also have short-term adverse effects including short-term loss of habitat and temporary displacement of LEPC and

other wildlife species during active restoration. LEPC appear to be adaptable to changing habitat conditions (i.e., structure and grass species composition), and grassland habitats can be restored in a relatively short period of time, but could displace LEPC and other species from habitat for 2 and 8 years, respectively (Van Pelt et al. 2013). LEPC habitats with shrub species (sand sagebrush and shinnery oak) would likely take longer than grasslands to be restored and reoccupied by LEPC. LEPC exhibit strong site fidelity (Campbell 1972) and oil and gas activities within or near active leks could result in temporary displacement or complete abandonment of leks. Because of this strong site fidelity, it is also uncertain how quickly LEPC would expand into newly restored habitat, although recent range expansion in central Kansas provides a good indication that future range expansion would likely occur.

Mitigation fees are calculated, in part, by the area that would be impacted, either directly from disturbance/removal of habitat or indirectly by the area of LEPC avoidance due to the presence of a new structure; these areas are therefore known as impact buffers. A comparison of the proposed RWP impact buffers with the avoidance distances described in the existing literature (Pitman et al. 2005, Hagen et al. 2011, Pruett et al. 2009) shows that buffer distances vary somewhat, depending on the goals and methods of the studies, sample size, and site variability, but there is a general consistency with the RWP impact buffers and those described in the existing literature, as shown in Table 6. However, some of the buffers are less than literature values (e.g., primary roads) and some are greater (e.g., buildings and compressor stations). This comparison indicates that the RWP impact buffers appear to be appropriate for estimating the mitigation structure and fees.

**Table 6. Buffer distances for different types of oil and gas-related developments established under the WAFWA Mitigation Framework and avoidance distance from the literature referenced in the Proposed Rule listing LEPC.**

Type of Impact	WAFWA Buffer Distance in Feet (meters)	Avoidance Distance in the Literature in Feet (meters)
Oil and gas pads and small compressor stations*	656 (200)	262.5 <sup>1</sup> -984.2 <sup>2</sup> (80-300)
Transmission line >69 kV	1,312 (400)	1,312 <sup>1</sup> -2,625 <sup>3</sup> (400-800)
Distribution lines <69 kV	33 (10)	NA-2,297 <sup>2</sup>
Secondary roads	220 (67)	NA
Primary roads	1,640 (500)	2,600 <sup>1</sup> -2,789 <sup>2</sup> (792-850)
Industrial buildings and other compressor stations**	2,188 (667)	1,640 (500) <sup>1</sup>
Residential buildings (houses)	436 (133)	3,281 <sup>1</sup> -4,593 <sup>2</sup> (1,000-1,400)
Private roads (e.g., ranch roads)	33 (10)	29.5 (9) <sup>1</sup> -NA

\*Includes compressor stations with footprints of <5 acres that are muffled to <75 dB at 30 feet.

\*\*Includes all other compressor stations and electrical substations.

NA = Not Available.

Sources: <sup>1</sup> Pitman et al. 2005, <sup>2</sup> Hagen et al. 2011, <sup>3</sup> Pruett et al.

In summary, the RWP conservation strategy provides incentives to avoid areas of quality LEPC habitat, but also allows for impacts to occur throughout LEPC range, including focal and connectivity zones, as long as the habitat goals of no more than 30 percent development impacts in focal areas and 60 percent in connectivity zones are maintained. These adverse

effects would be counterbalanced by the long-term benefits of the conservation measures that would be mitigated at a 2:1 offset to impact unit ratio resulting in a direct net conservation benefit for LEPC and other species in LEPC habitat in perpetuity. Long-term beneficial effects of implementing the mitigation strategy and conservation measures provide a net long-term benefit to LEPC and other listed and candidate species in the following ways:

1. Concentrates limited resources for species conservation in the most important focal areas and connectivity zones, allowing for the restoration, enhancement, and maintenance of large blocks of habitat needed by LEPC.
2. Places an emphasis for conservation on focal areas, connectivity zones, and high-quality habitat.
3. Identifies areas where oil and gas development should be avoided, which also helps identify areas where development is of less concern for LEPC. This method provides oil and gas operators with the guidance they typically seek for their development planning purposes, and helps avoid conflicts over impacts on the species.
4. Provides incentives specifically for oil and gas operators to avoid, minimize, and mitigate impacts on LEPCs from their actions.
5. Where avoidance and minimization of such impacts is not possible, the framework described in Appendix A of the CCAA and Exhibit B of the CI quantifies the impacts of development, quantifies the amount of mitigation necessary to offset the impacts, and then values these offsets.
6. Provides operators with certainty as to how oil and gas exploration and development would continue in the event the LEPC is listed.

In New Mexico, most oil and gas operators who choose to voluntarily implement conservation measures for the LEPC would likely enroll in the NM CCAA/CCA rather than the RWP in the No Action alternative, because the NM CCAA/CCA includes regulatory assurances for both the LEPC and sand dune lizard. The New Mexico CCAA/CCA has some conservation measures that are more protective than the RWP. For example, active leks are avoided by up to 1.5 miles in New Mexico compared with 1.25 miles under the RWP, electrical lines are buried within 2 miles of leks compared with 1.25 miles, and markers are installed on fences within 2 miles of leks compared with 0.25 mile. Conversely, the RWP provides more conservation measures than the New Mexico CCAA/CCA by implementing seasonal restriction for an additional month (March 1 to July 15 compared with March 1 to June 15), providing a funding mechanism that ties impacts to payments and, most importantly, mitigating habitat loss at a 2:1 ratio. The impacts and benefits to the LEPC in New Mexico are described in the EA for the NM CCAA/CCA. Impacts on listed and candidate species under the No Action Alternative over the remainder of LEPC range would be variable. On lands not enrolled in an existing conservation program in many areas of Colorado, Kansas, Oklahoma, and Texas, impacts on listed and candidate species would likely be **long-term moderate adverse**. Impacts on listed and candidate species for states enrolled in an existing conservation program, including the RWP, would be **long-term, moderate, and beneficial** as a result of implementing conservation measures.

#### *Alternative B: Range-wide Oil and Gas CCAA (Proposed Action)*

Under the Proposed Action, impacts on LEPC and other listed and candidate species occurring on lands enrolled under the Range-wide Oil and Gas CCAA would be similar to lands enrolled

under the RWP described in Alternative A. Range-wide Oil and Gas CCAA Participants would follow the same conservation measures and mitigation framework as those enrolled under the RWP. The regulatory assurances would likely encourage a higher level of enrollment in the Range-wide Oil and Gas CCAA than under the No Action alternative, thereby providing conservation benefits to a larger area of LEPC habitat than is present under the existing conservation programs (Alternative A). Overall, impacts on listed and candidate species under the Proposed Action would be **long-term, moderate, and beneficial**.

### *Alternative C: Range-wide Oil and Gas CCAA, Excluding New Mexico*

Under Alternative C, non-Federal property owners in Colorado, Kansas, Oklahoma, and Texas could choose to enroll in the RWP or the Range-wide Oil and Gas CCAA, which is the same scenario as the Proposed Alternative for those states. In New Mexico, property owners would be able to enroll in the RWP or the New Mexico CCAA/CCA, which would be the same as the No Action alternative in New Mexico. New Mexico property owners who choose to enroll in the existing New Mexico CCAA/CCA for their lands commit to conservation activities similar to those under the Proposed Action; however, some differences exist (Table 1).

## Other Wildlife

### *Affected Environment*

A variety of wildlife occurs in the Covered Area. The species discussed below serve only as a representative sample of wildlife typically found within the Sand Shinnery Oak Prairie, Sand Sagebrush Prairie, Mixed Grass Prairie, and Shortgrass/CRP Mosaic Prairie plant communities. Wildlife habitat in the Covered Area has been affected by land uses including conversion of native habitats to agriculture and pasture uses; fire suppression; habitat fragmentation; grazing practices (overgrazing, which leads to homogenous habitats); and loss of native herbivores (such as prairie dogs).

Wildlife species occurring on lands to be included in the Range-wide Oil and Gas CCAA vary greatly depending on location, proximity to development, and vegetation community. Fish and wildlife agencies in the five states in the Covered Area have developed Wildlife Action Plans (WAPs) to describe the health and status of wildlife and habitat in each state, identify potential threats to wildlife, and identify actions needed to conserve wildlife and their habitats. Information on wildlife in each state within the Covered Area can be found in the WAP for each state and is summarized below.

### *Colorado*

The Colorado WAP identifies 210 Species of Greatest Conservation Need (SGCN) including 26 mammals, 87 birds, 26 fish, 9 amphibians, 48 invertebrates, and 14 reptiles. Some of these species are mountain plover, ferruginous hawk, white-tailed jackrabbit, swift fox, and black-tailed prairie dog. For a complete species list, refer to the Colorado WAP (Colorado Division of Wildlife 2006).

### *Kansas*

The Kansas WAP identifies 317 SGCN including 22 mammals, 100 birds, 67 fish, 17 amphibians, 64 invertebrates, and 47 reptiles. Some of these species are grasshopper sparrow, Eastern

meadowlark, swift fox, and various butterflies. For a complete species list, refer to the Kansas WAP (Wasson et al. 2005).

### *New Mexico*

The New Mexico WAP identifies 1,166 wildlife species across the state with more than 452 identified as SGCN including 42 mammals, 74 birds, 37 fish, 15 amphibians, 252 invertebrates, and 32 reptiles. Some of these species are prairie vole, white-tailed jackrabbit, and swift fox. For a complete species list, refer to the New Mexico WAP (NMDF 2006).

### *Oklahoma*

The Oklahoma WAP identifies more than 800 wildlife species across the state with more than 248 identified as SGCN including 26 mammals, 74 birds, 52 fish, 16 amphibians, 58 invertebrates, and 22 reptiles. Some of these species are black-tailed prairie dog, burrowing owl, logger-head shrike, and swift fox. For a complete species list, refer to the Oklahoma WAP (ODWC 2005).

### *Texas*

The Texas WAP identifies thousands of wildlife species across the state with more than 951 identified as SGCN including 91 mammals, 110 birds, 231 fish, 70 reptiles and amphibians, and 449 invertebrates. Some of these species are black-tailed prairie dog, burrowing owl, pronghorn, and American badger. For a complete species list, refer to the Texas WAP (TPWD 2005).

## ***Environmental Consequences***

### ***Alternative A: No Action***

Under the No Action Alternative, wildlife would continue to be impacted at current levels by energy development. Impacts from oil and gas activities would include habitat loss, habitat degradation, and avoidance behavior by wildlife. Existing guidelines for oil and gas activities in New Mexico include recommended mitigations to reduce impacts on big game and raptors (Jankowitz and Gruber 2007). Oil and gas activities are expected to impact 2.2 to 3.2 million acres of potential LEPC habitat in the Covered Area over the 30-year period ending in 2040 (Van Pelt et al. 2013). Impacts on LEPC habitat would also affect other wildlife habitat. Additional protection would not be afforded wildlife above and beyond what is currently provided through ongoing land management practices and Federal and state regulations, laws, and policies.

### **Implementation of RWP**

For lands voluntarily enrolled by the oil and gas industry in the RWP, impacts on wildlife resources from oil and gas operations are anticipated to be further reduced. Implementation of the conservation measures would directly benefit wildlife species occupying the shrubland and grassland habitats used by LEPC. Conservation measures such as avoiding and minimizing impacts on habitat and enhancing habitat, restoring degraded habitat, creating new habitat, limiting development, treating undesirable vegetation, minimizing traffic, avoiding activities in the early morning hours during the spring lekking and nesting season, and developing noise abatement programs would benefit all wildlife in shrubland and grassland habitats. Management practices under the RWP, such as brush management and prescribed fire on lands included within the Covered Area would result in temporary displacement of wildlife and temporary loss of wildlife habitat, but are expected to provide a long-term benefit. Overall,

impacts on wildlife would be substantially less than if these conservation measures were not implemented under the RWP. The conservation measures implemented under the RWP alternative would be above and beyond those conservation activities currently being implemented. Therefore, the RWP would result in additional conservation of wildlife species within the Covered Area, and would result in a benefit to wildlife over the long term.

Overall, impacts on wildlife under current practices would be **long-term, minor to moderate, and adverse**. Implementation of conservation measures under the RWP that improve wildlife habitat would have a **long-term, minor to moderate, and beneficial** effect on wildlife under the No Action Alternative.

*Alternative B: Range-wide Oil and Gas CCAA (Proposed Action)*

Under the Proposed Action, impacts on other wildlife species on lands enrolled under the Range-wide Oil and Gas CCAA would be similar to lands enrolled under the RWP in Alternative A. Range-wide Oil and Gas CCAA Participants would follow the same conservation measures and mitigation as those enrolled under the RWP. The regulatory assurances would likely encourage a high level of enrollment in the Range-wide Oil and Gas CCAA, thereby providing conservation benefits to a larger area than is present under the existing conservation programs (Alternative A). Overall, impacts on wildlife under the Proposed Action would be **long-term, moderate, and beneficial**.

*Alternative C: Range-wide Oil and Gas CCAA, Excluding New Mexico*

Impacts on wildlife under Alternative C would be the same as under Alternative B in Colorado, Kansas, Oklahoma, and Texas. In New Mexico, restoration and preservation of additional habitat areas for LEPC under the WAFWA Mitigation Framework would not be implemented over the EOR+10 in New Mexico. However, benefits to wildlife and LEPC habitat under Alternative C would be similar to Alternative B (Proposed Action) for participating cooperators and areas covered under the New Mexico CCAA/CAA. These property owners would have the option to participate in the New Mexico CCAA/CCA (Service 2012a). Enrolled Properties in the New Mexico CCAA/CCA would have benefits to wildlife similar to Alternative B; however, these benefits under the New Mexico CCA/CCAA would not be as extensive as those in Alternative B. The differences between the New Mexico CCAA/CCA and the Range-wide Oil and Gas CCAA include differences in the setbacks for avoidance of leks (1.25 miles for the Range-wide Oil and Gas CCAA and 1.5 miles for the New Mexico CCAA/CCA) and differences in conditions in areas where power lines must be buried (within 1.25 miles of a lek under the Range-wide Oil and Gas CCAA and within 2 miles for the New Mexico CCAA/CCA). In general, the requirements of the New Mexico CCAA/CCA for avoidance and minimization are more stringent, but the New Mexico CCAA/CCA is not as comprehensive for restoration and preservation of additional habitat areas for LEPC as the Range-wide Oil and Gas CCAA. Thus long-term losses of wildlife habitat could potentially be greater under Alternative C compared with Alternative B. Under Alternative C, impacts on wildlife would be **long-term, moderate, and beneficial**, but to a lesser extent than under Alternative B.

## Cultural Resources

### *Affected Environment*

The majority of the Covered Area is within the High Plains section of the Great Plains Province, which has been occupied since at least 11,000 years before present (B.P.) by Native Americans of the Clovis Culture, and was visited and later occupied by Euroamericans beginning in the 16th century A.D. Evidence for human habitation could date back as far as 10,000 to 40,000 years B.P. (Stout 2010; Wycoff et al. 2003), although much of the evidence for the Paleoindian Period (10300 to 8000 B.P.) occupation of the High Plains is from excavated sites in the Llano Estacado region of eastern New Mexico and the western Texas Panhandle (Holliday 1997). After approximately 8000 B.P. (Archaic Period), climate in the West became much dryer and unpredictable, and most of the large mammals that characterized the Paleoindian Period had become extinct. In response to dryer climate, humans began to rely much more on a variety of plants and a greater number of smaller animals. This is evidenced by the shift from large unnotched projectile points to a greater diversity of smaller notched forms, and a significant increase in the use of grinding stones used to process plant foods (Zier and Kalasz 1999).

The transition between the Archaic Period and the Late Prehistoric Period is best characterized in the archaeological record by the appearance of ceramic technology and the adoption of the bow and arrow (Larmore et al. 2011). After A.D. 800, the number of archaeological sites increases dramatically, suggesting that population in the Covered Area and throughout the West and Midwest was increasing as humans adapted to smaller territories and greater population densities by increased reliance on agriculture. This period is characterized in the northern portion of the Covered Area by increased reliance on agriculture and bison hunting. People affiliated with the Plains Village cultural pattern lived in permanent earth lodges organized into small hamlets and larger villages on terraces next to watercourses and tended fields of corn and beans. Contemporaries of the Plains Village people living in the southern portion of the Covered Area had more cultural affinity to the Mogollon People. Sometime between A.D. 1200 and 1400, the Athapaskan ancestors of the modern Apache and Navahoe entered the area from the north. Ancestors of the Apache were in the area by the time Spanish explorers and adventurers entered the area (Larmore et al. 2011; Stout 2010).

Francisco Vasquez de Coronado was the first documented European to enter the Covered Area, in an ultimately failed attempt to find Cibola, the city of gold. His expedition did not find gold, but it did encounter bison herds and groups of nomadic bison hunters who, prior to the introduction of the horse, used dogs as beasts of burden (Hogan 2006; Sebastian and Levine 1989). Some of the Native Americans Coronado encountered are believed to be ancestors of the Apache. Later in time, the Covered Area was part of Comanche territory, with sedentary Wichita farmers to the east. Although it is difficult to identify archaeological sites from this period, the presence of European and Mexican, and later American, manufactured trade goods such as beads and metal arrow points denotes sites dating to this period (Sebastian and Levine 1989).

The Louisiana Purchase of 1803 made most of the Covered Area under U.S. jurisdiction. Trails from the north first brought trade and then Euroamerican settlers to the area. The Santa Fe Trail entered New Mexico from Colorado west of the Canadian River and was a primary commercial route connecting Missouri to Santa Fe between 1821 and 1880. A spur of the trail, the Cimarron Route, also entered New Mexico from the east through Kansas, Oklahoma, and

Texas, passing directly through the northern portion of the Covered Area (National Park Service 2013).

Known historic properties eligible for the National Register of Historic Places (NRHP) most likely include buildings and structures within developed and urban environments and archaeological sites that meet criteria for providing the potential for significant information important to the interpretation of prehistory. Because much of the non-Federal land in the Covered Area is unlikely to have been surveyed for cultural resources, additional archaeological sites and historic properties potentially eligible for the NRHP are likely present.

## *Environmental Consequences*

### *Alternative A: No Action Alternative*

Under the No Action Alternative, effects on cultural resources would continue to be guided by existing regulatory mechanisms. Typically, protection of cultural resources is limited on private lands, which are not subject to compliance with the National Historic Preservation Act (NHPA). Thus, impacts on cultural resources in the absence of a CCAA from ongoing oil and gas development would continue at current levels and could adversely affect known or unknown cultural resources. These impacts would continue to be managed on a case-by-case basis when required by state and local regulatory requirements.

### **Implementation of RWP**

For lands voluntarily enrolled by the oil and gas industry in the RWP, implementation of the conservation measures could potentially impact known or unknown cultural resources similar to other existing management. Typically, known historic properties and structures would be avoided, but ground-disturbing activities have the potential to impact undiscovered buried cultural resources. In most cases, restoration activities would be occurring on lands previously disturbed by other land uses such as croplands, degraded rangeland, roads, and abandoned facilities, so the potential for new impacts on cultural resources is expected to be negligible with shallow surface disturbances. Impacts on any cultural or historic properties have likely already occurred from previous land disturbances. Avoidance and minimization conservation measures would reduce the potential for adverse impacts on cultural resources by concentrating new activities within areas of previous disturbance and thereby reducing the footprint of new ground disturbances.

Overall, proposed LEPC habitat management activities are expected to have limited impacts on cultural resources because most actions would involve limited surface disturbance and/or would occur within areas of previous disturbance. Direct disturbance to known historical properties would be avoided to the extent feasible. Compliance with the NHPA and consultation with the State Historic Preservation Office (SHPO) would be conducted on a case-by-case basis depending on the nature of the specific conservation measures and the potential for impacting historic properties. Should significant unrecorded cultural resources be discovered during implementation of conservation measures, participating entities would contact the SHPO to take the appropriate action per the NHPA or other regulatory mechanisms. Avoiding and minimizing new disturbances would benefit cultural resources by reducing future land disturbances.

Overall, while conservation measures would reduce the potential for impacting cultural resources through the minimization of ground disturbances, **long-term minor to moderate adverse** impacts are possible in the absence of NHPA compliance.

*Alternative B: Range-wide Oil and Gas CCAA (Proposed Action)*

Under the Proposed Action, impacts on cultural resources on lands enrolled under the Range-wide Oil and Gas CCAA would be similar to lands enrolled under the RWP in Alternative A. Range-wide Oil and Gas CCAA Participants would follow the same conservation measures and mitigation as those enrolled under the RWP.

However, specific to the Range-wide Oil and Gas CCAA, the Service would require compliance with Section 106 of the NHPA for certain activities to minimize impacts on historic properties from Participant and WAFWA actions. NHPA compliance would be required for burying new distribution lines within 1.25 miles of leks that have been active within the previous 5 years when a) ground disturbance occurs in areas that have not been previously disturbed, such as in native grassland and shrubland; or b) where a new disturbance would exceed the level of a previous disturbance (i.e., a trench for burying distribution lines in a cultivated field would still need NHPA compliance because the trench would likely exceed the depth of disturbance previously caused by the crop cultivation). For actions that would be implemented by WAFWA, NHPA compliance would be addressed on a case-by-case basis, such as conservation measures that result in ground disturbances. Some conservation practices that could be of concern for historic properties include brush management that involves removal of the roots (i.e., grubbing of mesquite), and potentially the removal of existing structures such as tank batteries, pump jacks, and turbines. Existing structures that are older than 50 years may be historic properties, the removal of which may require NHPA compliance. Planted grass management is not considered a concern since it would occur in previously tilled acreage.

Under the Proposed Action, appropriate compliance and mitigation under the NHPA would be conducted when implementing actions with the potential to impact historic properties. The regulatory assurances associated with the Range-wide Oil and Gas CCAA would likely encourage a high level of enrollment, thereby providing conservation benefits to a larger area than is present under the existing conservation programs (Alternative A). Cultural resource effects under this alternative are anticipated to be **negligible** over the long term with compliance and mitigation measures implemented under the NHPA.

*Alternative C: Range-wide Oil and Gas CCAA, Excluding New Mexico*

The effects on cultural resources under this alternative are anticipated to be **negligible** over the long term, similar to those described for the Proposed Action, with the exception of in New Mexico. Impacts on cultural resources in New Mexico would be subject to local regulatory compliance on private lands and the NHPA on public lands.

## Socioeconomic Setting

*Affected Environment*

The human population of the Covered Area is dominated by rural agricultural communities. Outside of the few larger towns and cities, the overall population density is sparse, with less than 10 people per square mile throughout most of the Covered Area (U.S. Census Bureau 2011). The racial composition is primarily white, but with a growing proportion of people of Hispanic ethnicity (greater than 25 percent) in counties in Colorado, New Mexico, Texas, and southwestern Kansas (RUPRI 2008-2009). Most of the counties within the Covered Area (except for those in New Mexico) have seen a decline in population in recent years, some with a 10-

percent or greater reduction between 2000 and 2010 (U.S. Census Bureau 2011). The estimated poverty rate in 2007 was between 13 and 20 percent, or in some cases greater in Colorado, New Mexico, and Texas and a few counties in Kansas and Oklahoma. By comparison, the poverty rate for the entire United States in 2007 was 13.2 percent (RUPRI 2008-2009).

Agricultural production is the primary economic activity in the region. Based on 2007 statistics, the crop acres per farm are among the highest in the country in the Covered Area, which contributes to the market value of products sold per farm also being among the highest (Kotkin 2012). Oklahoma, Texas, and New Mexico have seen an increase in oil and gas exploration associated with the Anadarko, Palo Duro, and Permian basins (Energy Information Administration 2011). While oil and gas development in the Covered Area is expected to expand, projections of future oil and gas development are uncertain. Section XVII of the Range-wide Oil and Gas CCAA describes oil and gas development trends and several future development scenarios. Wind energy generation has also increased, with more than a dozen large wind farms in the region (National Renewable Energy Laboratory 2009).

## ***Environmental Consequences***

### ***All Alternatives***

None of the alternatives are anticipated to affect demographic trends or the overall economic trends within the Covered Area.

### ***Alternative A: No Action***

The financial cost of the No Action Alternative is uncertain because the costs of LEPC conservation and ESA compliance would be borne by each individual Participant on a case-by-case basis. As described above in Chapter 2 and in the RWP, numerous existing programs outline regulatory guidelines and requirements and/or provide assistance available to property owners for management and conservation of LEPC. The effect of the existing programs, other than the RWP, on socioeconomic conditions within the five-state Covered Area and on regional economies is expected to be the same as current and past conditions. The overall effect of the RWP on socioeconomic conditions and regional economies is uncertain because we do not have a basis for predicting the level of voluntary enrollment that would occur in the RWP under the No Action alternative.

### **Implementation of RWP**

For lands voluntarily enrolled by the oil and gas industry in the RWP, the RWP is anticipated to benefit the Participants by providing a consistent conservation framework and fee program throughout the range of the LEPC. The RWP would also benefit technical service providers on an individual and localized scale as they assist Participants with implementation of the conservation measures. Participants in the RWP would be required to pay enrollment and mitigation fees based on the location and nature of their development impacts. In addition, some property owners would receive additional economic benefits on an individual basis by participating in the offset (mitigation) generation program, which would result in compensation for the property owner. While implementation of the RWP may result in direct costs or benefits to individual Participants, it is not expected to measurably affect overall economic trends and activity on a broader regional scale, including agriculture and energy development. This expectation is because the incremental economic costs and benefits of implementation are likely to be small in comparison with the overall regional economy.

Overall, the No Action Alternative is expected to result in **long-term negligible benefits** to socioeconomic conditions throughout the Covered Area.

*Alternative B: Range-wide Oil and Gas CCAA (Proposed Action)*

Under the Proposed Action, the effects on socioeconomic conditions within the Covered Area are expected to be similar to lands enrolled under the RWP in Alternative A. Range-wide Oil and Gas CCAA Participants would follow the same enrollment and mitigation fee structure as those enrolled under the RWP. Enrollment in the Range-wide Oil and Gas CCAA under the Proposed Action would benefit Participants by providing regulatory certainty that would help in business planning. The regulatory assurances would likely encourage a higher level of enrollment into the Range-wide Oil and Gas CCAA, thereby providing economic consistency benefits to a larger area than is present under the existing conservation programs (Alternative A). Implementation of the Range-wide Oil and Gas CCAA is also anticipated to improve the cost efficiency of LEPC conservation throughout the Covered Area. The Proposed Action is expected to result in **long-term minor benefits** to socioeconomic conditions throughout the Covered Area.

*Alternative C: Range-wide Oil and Gas CCAA, Excluding New Mexico*

Alternative C would have the same benefits to the overall socioeconomic conditions as the Proposed Action by providing Participants with the potential economic benefits and assurances associated with Range-wide Oil and Gas CCAA coverage. However, the potential individual economic benefits to some property owners are less likely to occur in Alternative C since the conservation measures of the existing New Mexico CCAA/CCA do not specifically include measures such as conservation easements that have a direct financial benefit to property owners. This distinction would not change the determination of **long-term minor benefits** to socioeconomic conditions.

## Land Use

*Affected Environment*

The Covered Area is dominated by private land, along with a mix of federally and state-owned lands. As shown in Figure 3 and Table 7, the Covered Area in Kansas and Texas is almost exclusively private while Colorado, New Mexico, and Oklahoma have a small percentage of state land. No tribal lands were located within the Covered Area (USGS 2011) and Federal lands are not covered in the Range-wide Oil and Gas CCAA because CCAAs can apply only to non-Federal lands.

**Table 7. Land ownership percentage within the Covered Area.**

	Private	State	Federal	Other
Colorado	94	3	3	< 1
Kansas	99	< 1	< 1	< 1
New Mexico	74	15	11	< 1
Oklahoma	96	4	< 1	< 1
Texas	99	< 1	< 1	n/a

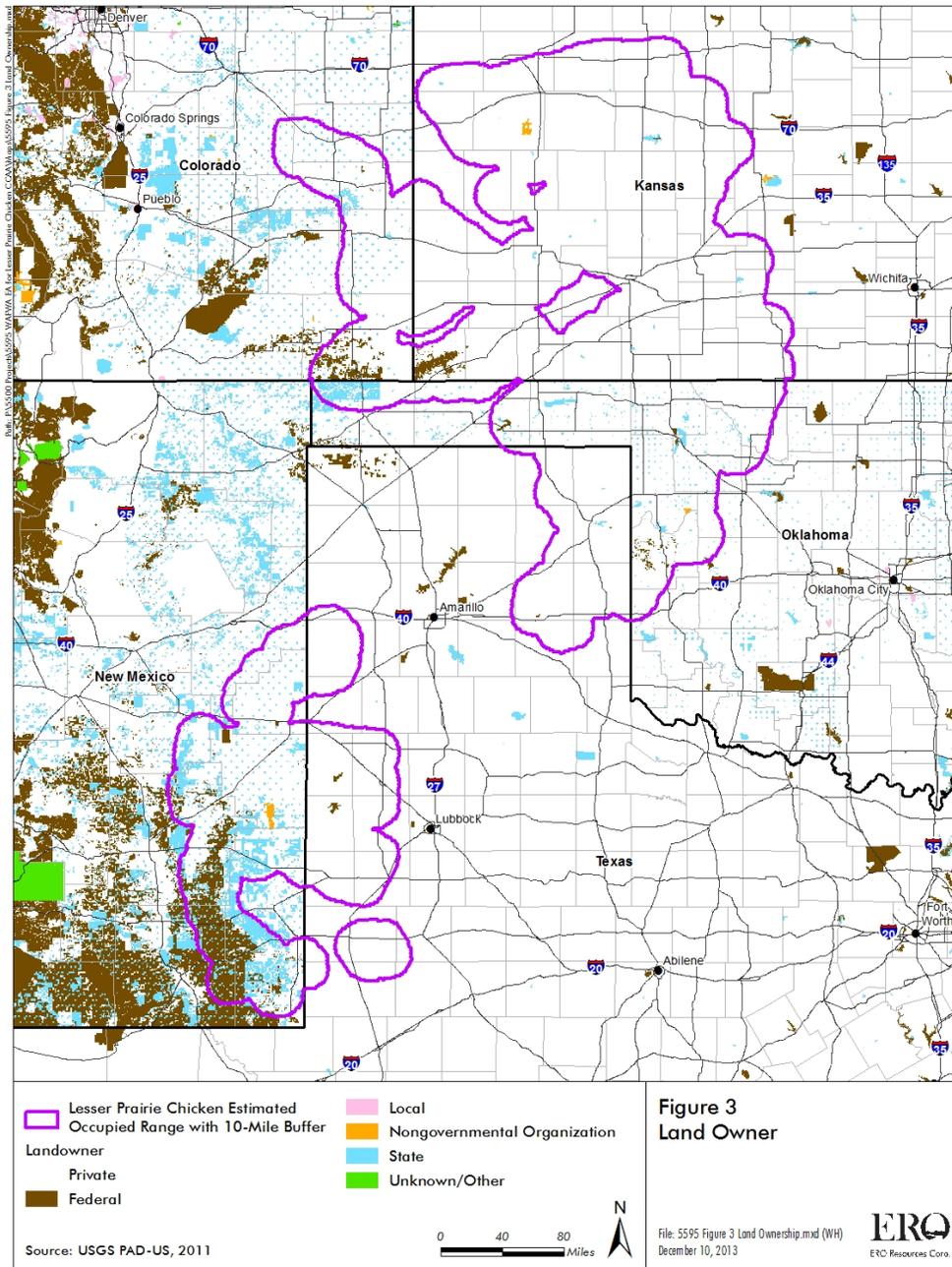
Source: USGS PAD-US 2011.

Land use throughout the Covered Area is primarily rangeland used for livestock grazing, irrigated and nonirrigated cropland, and small-scale development associated with energy development,

infrastructure, and local communities. As described in the *Vegetation* section in this chapter, cropland comprises about 21 percent of the LEPC focal areas and about 24 percent of the connectivity zones and expansion areas. The remainder of the Covered Area consists of grassland, shrubland, and other land cover types.

Farms and ranches make up nearly all of the Covered Area, although the type of agricultural production varies by region. Most of the Covered Area in Kansas and Colorado is cropland used for dry-farmed crops such as winter wheat, while other crops include grain sorghum, pinto beans, alfalfa, corn, sugar beets, and grass hay. In north Texas and Oklahoma, most of the area is used for livestock ranching on open range or improved pasture. The principal crops grown in this area are wheat, sorghum, and hay. In west Texas and New Mexico, land use is dominated by cropland to the east (in Texas) and transitions to rangeland to the west in New Mexico. The principal crops are wheat, grain sorghum, and corn in the northern part of this area and cotton, grain sorghum, and peanuts in the southern part. Beef cattle production occurs on open rangeland and improved pastures (NRCS 2013b).

Figure 3. Land Owner



## *Environmental Consequences*

### *Alternative A: No Action*

Under the No Action Alternative, existing land uses within the Covered Area, including agriculture and energy development, would continue. This alternative would not affect land use and ownership within the Covered Area.

### **Implementation of RWP**

For lands voluntarily enrolled by the oil and gas industry under the RWP, Participants would have a wide range of options for LEPC conservation. Implementation of the RWP conservation measures would require that at least 25 percent of the impact units generated by oil and gas developments would be offset with long-term habitat protection, most likely within a LEPC population stronghold using conservation easements. These easements would occur on a negotiated basis with Property owner, would benefit Participants with increased regulatory certainty, and are not expected to change the primary and existing uses of Enrolled Property.

Overall, land use and ownership would not change under current practices, but the No Action Alternative would result in **long-term minor benefits** for lands voluntarily enrolled in the RWP within the Covered Area.

### *Alternative B: Range-wide Oil and Gas CCAA (Proposed Action)*

Under the Proposed Action, impacts on land uses on lands enrolled under the Range-wide Oil and Gas CCAA would be similar to lands enrolled under the RWP in Alternative A. Range-wide Oil and Gas CCAA Participants would follow the same conservation measures and mitigation as those enrolled under the RWP. Participants would benefit from increased regulatory certainty under the Range-wide Oil and Gas CCAA as they conduct the Covered Activities without additional requirements of ESA compliance. The regulatory assurances would likely encourage a high level of enrollment in the Range-wide Oil and Gas CCAA, thereby providing conservation benefits to a larger area than is present under the existing conservation programs (Alternative A). Alternative B would result in **long-term moderate benefits** to land use and ownership.

### *Alternative C: Range-wide Oil and Gas CCAA, Excluding New Mexico*

This alternative would have similar benefits to land use and ownership as the Proposed Action. Participants in New Mexico would still have the opportunity to enroll in the existing New Mexico CCAA/CCA; however, the New Mexico CCAA/CCA does not provide a commitment or funding to create conservation easements. Benefits to land use and ownership in New Mexico would be less extensive because no other options would be available for LEPC conservation and ESA compliance. Alternative C would result in **long-term moderate benefits** to land use and ownership.

## **Prime Farmland**

### *Affected Environment*

In 1980, the Council of Environmental Quality directed Federal agencies to assess the effects of their actions on farmland soils classified as prime or unique by the United States Department of Agriculture, NRCS. Prime farmland is defined as soil that has the best combination of physical and chemical characteristics for producing crops such as common foods, forage, fiber, and oil

seed; and unique farmland produces specialty crops such as fruits, vegetables, and nuts. The Covered Area includes areas of prime farmland primarily in Kansas, Oklahoma, and the Texas Panhandle (NRCS 2000).

The majority of prime farmland is cropland, although some prime farmland is used as rangeland. Use of prime farmland as pastureland is limited in the Covered Area (NRCS 2000). Ground water from the Ogallala Aquifer is the primary source of water for irrigated prime farmland (NRCS 2006). In some areas, irrigated agricultural lands have been converted to dryland farming or nonirrigated permanent vegetation where ground water supplies have diminished or are uneconomical for use. Typically, prime farmlands are not eligible for the CRP, but some conservation priority programs, such as the Conservation Reserve Enhancement Program and SAFE program, allow for enrollment in some states. Irrigated cropland does not provide suitable habitat for LEPC; however, agricultural lands that are converted from croplands to native grasslands provide habitat for LEPC and other grassland wildlife species.

### *Environmental Consequences*

#### *Alternative A: No Action*

Under the No Action Alternative, activities on prime farmland would continue similar to existing conditions and existing regulatory programs. Property owners would continue to irrigate prime farmland for croplands, rangeland and, to a limited extent, pastureland in the Covered Area. Any conversion of prime farmland to other agricultural uses or other development would continue at current levels. Oil and gas development could potentially result in adverse impacts on prime farmland for the duration of development and production activities. Prime farmland impacts in New Mexico would be negligible because very little prime farmland is present.

#### **Implementation of RWP**

For lands voluntarily enrolled by the oil and gas industry in the RWP, impacts on prime farmland from oil and gas operations are anticipated to be further reduced because of the incentives for Participants under the RWP to minimize surface disturbance. Ongoing and future oil and gas development has the potential to occur on prime farmlands. Conservation measures under the RWP that minimize new land disturbances and that concentrate oil and gas activities in existing areas of disturbance would reduce potential impacts on prime farmland. Habitat restoration and avoidance/minimization measures as part of the RWP may result in the conversion of prime farmland currently used for crops to rangeland. While this would change prime farmland use, it would provide better long-term conservation of prime farmland soils and reduce the potential for wind and water erosion. No loss in prime farmland is anticipated as a direct result of the conservation measures in the RWP.

Overall, impacts on prime farmland under current practices would be **long-term, minor, and adverse**. The effects on prime farmland are expected to be **long-term, minor, and beneficial** with conservation measures that reduce impacts on prime farmland and allow for establishment of permanent native grasslands that benefit LEPC.

#### *Alternative B: Range-wide Oil and Gas CCAA (Proposed Action)*

Under the Proposed Action, impacts on prime farmland on lands enrolled under the Range-wide Oil and Gas CCAA would be similar to lands enrolled under the RWP in Alternative A. Range-wide Oil and Gas CCAA Participants would follow the same conservation measures and mitigation as those enrolled under the RWP. The regulatory assurances would likely encourage

a high level of enrollment into the Range-wide Oil and Gas CCAA, thereby providing conservation benefits to a larger area than is present under the existing conservation programs (Alternative A). Thus, the Proposed Action would have **long-term minor beneficial** effects on prime farmland.

### *Alternative C: Range-wide Oil and Gas CCAA, Excluding New Mexico*

The effects on prime farmland would be similar to those under Alternative B because there is very little prime farmland in New Mexico. Thus, the effects on prime farmland are expected to be **long-term, minor, and beneficial** with conservation measures that reduce impacts on prime farmland and allow for establishment of permanent native grasslands.

## Resources and Issues Dismissed from Further Evaluation

Impact topics were dismissed from further analysis if it was determined that the alternatives do not have the potential to cause a substantial change to these resources or their values. Impacts resulting from implementation of the conservation measures were evaluated as opposed to the forecasted future oil and gas development that would occur regardless of the issuance of a permit. The regulatory context and baseline conditions relevant to each impact topic were analyzed in the process of determining if a topic should be retained or dismissed from further analysis. A brief discussion of resource topics that were considered but dismissed from detailed analysis and the rationale for dismissing them from further analysis is provided below.

### *Environmental Justice*

Executive Order (EO) 12898, “General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” requires all Federal agencies to incorporate environmental justice into their missions by identifying and addressing the disproportionately high and/or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. Communities in the Covered Area contain minority and low-income populations; however, environmental justice was dismissed as an impact topic because implementation of the no action or action alternatives would not result in any identifiable adverse human health effects and would not disproportionately affect any minority or low-income populations or communities. Therefore, there would be no direct or indirect adverse effects specific to any minority or low-income population.

### *Indian Trust Resources*

Secretarial Order 3175 requires that any anticipated impacts on Indian trust resources from a proposed project or action by Department of the Interior agencies be explicitly addressed in environmental documents. The Federal Indian trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights. The order represents a duty to carry out the mandates of the Federal law with respect to American Indian and Alaska Native tribes. There are no known federally administered Indian trust resources in the Covered Area (NationalAtlas.gov 2013); therefore, Indian trust resources were dismissed as an impact topic in this EA.

### *Floodplains*

EO 11988, “Floodplain Management” requires an examination of impacts on floodplains and potential risks involved in placing facilities within floodplains. Floodplains are present along

numerous rivers and streams within the Covered Area. Conservation measures under the action alternatives, such as habitat restoration, may occur within floodplains. Typically, habitat restoration and reclamation actions within a floodplain would have a beneficial effect by contributing to the maintenance of floodplain functions and values. Because the action alternatives would not adversely impact floodplains and any effects are likely to be beneficial, floodplains were dismissed as an impact topic in this EA. Oil and gas development under the No Action Alternative would typically have minimal impacts on floodplain characteristics and placement of facilities. An active floodplain is generally avoided because of potential impacts on equipment structures and safety concerns. Therefore, floodplains were dismissed as an impact topic in this EA.

### ***Air Quality***

The Clean Air Act of 1963 (42 USC 7401 et seq.) was established to promote public health and welfare by protecting and enhancing the nation's air quality. The act establishes specific programs that provide protection for air resources and air quality-related values. Air quality varies throughout the Covered Area depending on local and regional emission sources. Contributions to air quality from the predominantly rural areas present in the Covered Area may include fugitive dust from agricultural operations and roads, power plant emissions, vehicle emissions, oil and gas operations, and urban and industrial emissions. Implementation of the action alternatives would not measurably impact local or regional air quality because oil and gas operations would occur regardless of implementation of the action alternatives. Actions that restore or rehabilitate disturbed lands to improve LEPC habitat would have beneficial impacts on air quality by reducing the potential for generating fugitive dust. Conservation measures that result in minimizing new land disturbance also would benefit air quality. Air quality and emissions under the No Action Alternative would not change from existing conditions. Because the action alternatives would not adversely impact air quality and the impacts are expected to be beneficial, this topic was dismissed from detailed discussion in the EA.

### ***Climate Change***

Climate change typically refers to changes in average climatic conditions, such as temperature and precipitation. Reports by the U.S. Climate Change Science Program, the National Academy of Sciences, and the United Nations Intergovernmental Panel on Climate Change provide evidence that climate change is occurring as a result of rising greenhouse gas (GHG) emissions and could accelerate in the coming decades. While climate change is a global phenomenon, it manifests differently depending on regional and local factors. Climate change science is a rapidly advancing field and new information is being collected and released continually. Under the No Action Alternative, GHG emissions and effects on climatic change would continue under current and future projections. GHG emissions associated with oil and gas development under the Proposed Action would likely be the same as under the No Action alternative because such development is likely to occur whether operators voluntarily enroll in the CCAA or not. Additional emissions would result from vehicle and equipment emissions associated with habitat restoration activities, which would be periodic and short-term emissions and have a negligible contribution to climate change. Conservation measures that lead to the long-term establishment of native prairie and reduced land management actions would result in a slight reduction in GHG. Because the No Action and action alternatives would have less than negligible effects on climate change, this topic was eliminated from detailed discussion in the EA.

### ***Visual Quality***

Visual quality in the Covered Area varies widely depending on the land use, topography, vegetation cover, presence of natural features, level of development, and scenic vistas. Roads, agricultural practices, ranching operations, transmission lines, oil and gas development, land development, buildings, and structures all influence the visual character of the landscape. Because oil and gas operations would occur regardless of the implementation of the action alternatives, no additional adverse effects on visual quality would occur in the Covered Area. Conservation measures that avoid and minimize surface disturbances would have a beneficial impact on visual quality, as would habitat restoration activities. Short-term minor effects on visual quality are possible from implementation of some conservation measures such as ground disturbance for habitat restoration. Because impacts under the implementation of the RWP, which is common to all alternatives, would be beneficial due to an anticipated reduction in surface disturbances, visual quality was dismissed as an impact topic in this EA.

### **Cumulative Effects**

Cumulative effects are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such actions” (40 CFR 1508.7). Cumulative effects can result from individually minor, but collectively significant, actions taking place over a period of time. This section analyzes cumulative effects of the alternatives when combined with the effects of other relevant past, present, and reasonably foreseeable future activities.

### ***Past and Present Actions***

The *Affected Environment* section provides existing information on the current condition of resources in the five-state Covered Area that are the result of past and present actions and constitute the environmental baseline for the analysis of direct, indirect, and cumulative effects. In general, many actions have occurred across the Covered Area over the last several centuries. Collectively, these activities have substantially affected the landscape. Some of the more significant past and ongoing activities include agricultural production; livestock grazing; oil, gas, mineral, and renewable energy development; utility corridors for transmission lines, pipelines, and utilities; roads; urban development; and changes in land use. Other important past and present actions that have shaped this baseline and are considered in the cumulative effects analysis are described below.

### ***LEPC Threats***

A number of past and ongoing actions have affected, or have the potential to affect, LEPC and its habitat. Threats identified by the Service (2012a) include the following:

- Habitat conversion from agriculture
- Livestock grazing
- Collision mortality
- Shrub control and eradication
- Altered fire regimes and invasion by woody plants
- Insecticides

- Wind power and energy transmission development and operations
- Petroleum production
- Roads and other linear features
- Predation
- Disease
- Hunting loss and other recreational disturbances
- Hybridization
- Competition from ring-necked pheasants (*Phasianus colchicus*)

Current levels of impacts on LEPC habitat within the Covered Area from infrastructure developments were estimated in the RWP (Van Pelt et al. 2013). The total acreage of existing impacts on the four vegetation ecoregions from oil and gas development, wind and vertical structures, transmission lines, roads, and other infrastructure (net of overlapping impacts) is about 2.8 million acres. Roads account for approximately 56 percent of the impacts, oil and gas development account for approximately 23 percent of the impacts, and transmission lines account for about 16 percent of the impacts. More than 2.4 million acres of native prairie has been converted to cropland within current LEPC focal areas and connectivity zones (Van Pelt et al. 2013). Native prairie has also been impacted by livestock grazing and associated land management practices, such as control and eradication of sand shinnery oak and sand sagebrush, altered fire regimes, and invasion of woody plants, which have affected the quality of LEPC habitat.

### *Endangered Species Act Listing Decisions*

As described in the *Listed, Proposed, and Candidate Species* section in this chapter, four species for potential Federal listing are known to occur within the Covered Area and occupy habitats that may be impacted by the Range-wide Oil and Gas CCAA alternatives. These include lesser prairie-chicken, Sprague's pipit, northern aplomado falcon, and black-footed ferret. Decisions to designate these species as candidate or endangered, nonessential experimental populations under the ESA are past actions that are part of the existing context of wildlife conservation and management for the Covered Area.

### *Reasonably Foreseeable Activities*

Reasonably foreseeable future activities are actions and activities that are independent of the action alternatives, but could result in cumulative effects when combined with the effects of the alternatives. These activities are anticipated to occur regardless of which alternative is selected. "Reasonably foreseeable future actions," as defined by the U.S. Environmental Protection Agency (EPA) (1999), are not speculative—they have been approved, are included in short- to medium-term planning and budget documents prepared by government agencies or other entities, or are likely (over the Permit term), given trends. Reasonably foreseeable future actions that could result in cumulative effects are described below.

### *Energy Development*

Previous oil and gas development has impacted more than 2.4 million acres of LEPC habitat, and future development is anticipated to continue and expand within the Covered Area. Projections of future oil and gas development from the RWP indicate about 123,000 to 179,000 new wells could be drilled over a 30-year period by 2040 (Van Pelt et al. 2013). The estimated area of impact in LEPC habitat from these new wells would range from about 2.2 to 3.2 million acres.

Wind energy farms and transmission lines have impacted about 2.3 million acres of LEPC habitat, and wind development over the next 30 years is expected to impact about 960,000 acres (2.3 percent) and transmission lines an additional 604,000 acres (1.4 percent) (Van Pelt et al. 2013).

### *Habitat Conservation Plans (HCPs)*

A HCP is a post-listing tool designed to mitigate for impacts on federally threatened or endangered species. Nineteen wind energy companies have been working with the Service on the Great Plains Wind Energy HCP to address threats related to wind industry development for federally listed species, including the LEPC. The American Habitat Center is currently preparing a HCP for the lesser prairie chicken that addresses a suite of energy development agricultural, and conservation activities within the range of the species plus Nebraska.

### *Safe Harbor Agreements*

A Safe Harbor Agreement describes the overall conservation strategy and activities that will be carried out to provide a net conservation benefit to the Covered Species. An incidental take permit for the Black-footed Ferret Programmatic Safe Harbor Agreement (SHA) was issued in October 2013 for the black-footed ferret. The scope of that agreement includes the entire range of the black-footed ferret and includes part of the Covered Area of the RWP. LEPC leks occur in areas characterized by sparse, low vegetation, including prairie dog towns. Conservation actions for prairie dogs and the black-footed ferret under the SHA could benefit LEPC conservation efforts where the species and their habitats may overlap with expansions in the future.

### *Changes in Land Use*

Future land development and changes in land use are anticipated throughout the Covered Area. Conversion of agricultural land to rangeland is possible where water supplies are diminishing. In some areas, rangeland and CRP lands are converted to cropland for economic reasons. Residential and urban development would expand primarily from existing areas of development, but may result in impacts on native prairie habitat suitable for LEPC.

### *Climate Change*

As previously described, effects from climate change are expected to occur in the future. Some model projections indicate increased temperatures, evaporation, and lower precipitation, with greater changes more likely in the southern part of the Covered Area (Union of Concerned Scientists 2009). These changes may accelerate depletion of ground water aquifers and reduce water available for irrigation of crops and rangeland. This reduced availability of water may lead to increased conversion of irrigated land to dryland farming or native plant communities. Climate change is also likely to affect native plant and animal communities and could affect the suitability of habitat for LEPC. Warmer temperatures, less precipitation, more extreme storms, and prolonged droughts in the southwest part of LEPC range may shift the composition of plant communities to those less favorable as LEPC habitat (Van Pelt et al. 2013). Prolonged drought could cause population fluctuations that threaten the persistence of fragmented populations. Intense storms during the nesting season may cause significant local reductions in reproductive success or survival.

### ***Cumulative Effects of the Alternatives***

The potential cumulative effects of the proposed alternatives, when combined with the effects of past, present, and reasonably foreseeable future actions, are described below. Impacts on resources that would not contribute substantially to cumulative effects are not discussed.

#### ***Soils, Vegetation, Water Resources, Wildlife, and Listed and Threatened Species***

Past, present, and reasonably foreseeable changes in land use, energy development, and climate change have resulted in, or are likely to result in, adverse impacts on natural resources. Existing LEPC conservation programs minimize and mitigate some of those impacts. Implementation of conservation measures under the No Action and action alternatives would contribute beneficial effects to natural resources in the Covered Area by taking actions to minimize new disturbances and restore disturbed habitat for the benefit of LEPC. Future land management practices such as vegetation and grazing management and prescribed burning under the proposed Range-wide Oil and Gas CCAA are anticipated to substantially improve LEPC habitat (Van Pelt et al. 2013). Habitat conservation and improvements for the LEPC would provide direct and indirect cumulative benefits to soils, native vegetation, water resources, and other species of wildlife, and listed and threatened species that use similar habitat. Implementation of the Range-wide Oil and Gas CCAA would decrease the overall surface disturbance attributed to oil and gas development and conservation measures would preserve, enhance, and restore LEPC habitat for the long-term benefit of LEPC. These cumulative beneficial effects would reduce threats to LEPC in the Covered Area.

While the impacts of past, present, and reasonably foreseeable activities on natural resources would be long-term and adverse, the Proposed Action would contribute minor to moderate beneficial effects, although the overall cumulative impacts would remain adverse. The No Action Alternative would contribute both adverse and beneficial effects on overall cumulative effects on natural resources. Cumulative natural resource effects under Alternative C would be similar to the Proposed Action, except in New Mexico where the effects would be the same as the No Action alternative.

#### ***Cultural Resources***

Cultural resources have been affected by a variety of past and present land development activities, including agriculture, roads, utilities, oil and gas development, and residential and urban growth. Reasonably foreseeable actions from similar activities are also likely to impact cultural resources in the future. Cultural resources would have minimal protection from oil and gas development on private property under the No Action Alternative. Under Alternatives B and C, certain ground-disturbing activities associated with implementation of conservation measures related to oil and gas development would require compliance with the NHPA. Thus, Alternatives B and C would contribute to long-term beneficial cumulative effects on cultural resources with requirements to evaluate and protect historic properties in accordance with the NHPA.

#### ***Socioeconomics and Land Use***

Past, present, and reasonably foreseeable activities have established the existing framework of agricultural land use and expanding energy development within the Covered Area. Listing decisions for sensitive species, including the LEPC, have the potential to result in minor to moderate adverse effects on some property owners as increased regulatory uncertainty may

complicate land use and economic activities. Other existing conservation and regulatory compliance programs, including NRCS programs, CCAAs, and HCPs have reduced those impacts by providing property owners with certainty as they conduct economic and land use activities. The proposed alternatives would contribute to the cumulative benefits of those programs by providing property owners with increased regulatory certainty as they conduct oil and gas-related activities. Overall, implementation of the RWP conservation strategy under the No Action Alternative and Alternative B is expected to result in long-term minor cumulative benefits to socioeconomic and land use conditions in the Covered Area. These cumulative benefits would be the same in Alternative C, excluding New Mexico where they would be the same as the No Action in that state.

### *Prime Farmland*

Prime farmlands throughout the Covered Area have been designated for cropland, rangeland, and pastures. Proposed conservation measures under the Range-wide Oil and Gas CCAA for Alternatives B and C are anticipated to benefit prime farmlands to the extent that disturbance to these lands is minimized and degraded and disturbed lands are restored. A long-term beneficial cumulative effect on prime farmlands is anticipated when the conservation measures under the No Action and action alternatives are added to ongoing prime farmland conservation measures. Cumulative beneficial effects on prime farmland would be less under the No Action Alternative than the action alternatives because fewer conservation measures would be implemented.

## CHAPTER 4. LIST OF PREPARERS

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The following individuals assisted in the preparation of this EA:

<b>Name</b>	<b>Title/Role</b>	<b>Affiliation</b>
Leslie Ellwood	Fish and Wildlife Biologist	US Fish and Wildlife Service
Ron Beane	Project Manager/Wildlife Biologist	ERO Resources Corporation
Nicole Bauman	Assistant Project Manager/Environmental Specialist	ERO Resources Corporation
Bill Mangle	Natural Resource Planner	ERO Resources Corporation
Mark DeHaven	Senior Environmental Scientist	ERO Resources Corporation
Steve Butler	Biologist	ERO Resources Corporation
Wendy Hodges	GIS and Mapping Support	ERO Resources Corporation
Kay Wall	Technical Editor	ERO Resources Corporation

## CHAPTER 5. CONSULTATION AND COORDINATION

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### Internal Scoping

Internal scoping was conducted by an interdisciplinary team of professionals from the Service, WAFWA, Oil and Gas Participants, and consultants. Team members met in August 2013 to discuss the NEPA process for the Range-wide Oil and Gas CCAA, purpose and need for the project, potential alternatives and environmental impacts, and resource protection.

### External Scoping

Public participation for the RWP was comprehensive and included several opportunities for public comment. Because the RWP is considered an umbrella document for the Range-wide Oil and Gas CCAA, no additional public scoping meetings were held for this process.

### Stakeholder Coordination

During the development of the RWP, WAFWA representatives met with stakeholder groups on numerous occasions to solicit information and feedback, disseminate information about the RWP, and develop partnerships to assist with the long-term implementation of the RWP. These meetings included multi-stakeholder forums, group presentations, and individual consultations described in *Chapter 1. Introduction, Purpose of, and Need for Action*. The following organizations were represented at the various stakeholder meetings or commented on the Draft RWP.

AWEA	Oklahoma Department of Wildlife Conservation
BLM Pecos District	Oklahoma Independent Petroleum Association
BP	Permian Basin Petroleum Association
Chesapeake	Plains Cotton Growers
Clean Line	SandRidge Energy
Colorado Parks and Wildlife	Schafer Grass Seeding
Common Ground Capital	Texas Comptroller of Public Accounts
Conoco Phillips	Texas Oil & Gas Association
Devon Energy	Texas Parks & Wildlife Department
Ecosystem Management Research Institute	Theodore Roosevelt Conservation Partnership
Environmental Defense Fund	U.S. Fish and Wildlife Service
Infinity Wind Power	USDA APHIS at the National Wildlife Research Center
Kansas Department of Wildlife, Parks, and Tourism	USDA Farm Services Agency
Kansas Farm Bureau	USDA Forest Service
Mid-Continent Oil & Gas Association of Oklahoma, Inc.	Westar Energy
Natural Resources Conservation Service, Science Advisor	Western Association of Fish and Wildlife Agencies
New Mexico Department of Game and Fish	Western Farmers Electric Cooperative
Norvento	Wildlands Inc.
OGE Energy Corp	
OIPA	

## Agency Consultation

Compliance with Section 106 of the NHPA shall be addressed on a case-by-case basis by the Participants or WAFWA, as appropriate, and would be completed prior to implementation of conservation measures with the potential to affect historic properties. The Proposed Action that may require NHPA compliance is the burying of new distribution lines within 1.25 miles of leks that have been active within the previous 5 years. Compliance would be required for a) ground disturbance in areas that have not been previously disturbed, such as in native grassland and shrubland; or b) where a new disturbance would exceed the level of a previous disturbance (i.e., a trench for burying distribution lines in a cultivated field would still need NHPA compliance since the trench would likely exceed the depth of disturbance previously caused by the crop cultivation).

For actions that would be implemented by WAFWA, NHPA compliance would be addressed on a case-by-case basis but may be required for the conservation practices that result in ground disturbances. Some conservation practices that could be of concern for historic properties include brush management that involves removal of the roots (i.e., grubbing of mesquite) and the removal of existing structures, such as tank batteries, pump jacks, and turbines. Existing structures that are older than 50 years potentially may be historic properties, the removal of which may require NHPA compliance. Planted grass management is not considered a concern since it would occur in previously tilled acreage.

The process for NHPA compliance includes a step-wise approach of identifying historic properties in the area of potential effect, which may include a file records search and/or field evaluations, and developing minimization and mitigation measures, where appropriate. The

Service would be responsible for conducting consultation with the SHPO. This process is outlined in greater detail in the Range-wide Oil and Gas CCAA for actions implemented by the Participants and in the 10(a)(1)(A) permit for actions implemented by WAFWA.

## American Indian Consultation

The Service initiated government-to-government consultation with American Indian tribes and organizations per Executive Order 13175, Secretarial Order 3206, and the Department of the Interior Policy on Consultation with Indian Tribes. Letters were sent to the 68 tribes on December 12, 2013, informing them of the proposed project and soliciting comments (see list of tribes below). The letters also provided tribes with the opportunity to be involved in the environmental compliance process.

The following Tribes received consultation letters:

### Colorado

Ute Mountain Ute

Southern Ute Indian Tribe

### Kansas

Kickapoo Tribe

Prairie Band of Potawatomi of Kansas

Iowa Tribe of Kansas and Nebraska

Sac and Fox Nation

### New Mexico

Pueblo of Acoma

Pueblo of Cochiti

Pueblo of Isleta

Pueblo of Jemez

Jicarilla Apache Nation

Pueblo of Laguna

Mescalero Apache Tribe

Pueblo of Nambe

Pueblo of Picuris

Pueblo of Pojoaque

Pueblo of Sandia

Pueblo of San Felipe

Pueblo of San Ildefonso

Ohkay Owingeh

Pueblo of Santa Ana

Pueblo of Santa Clara

Kewa Pueblo - formally Pueblo of Santo Domingo

Pueblo of Taos

Pueblo of Tesuque

Pueblo of Zia

Pueblo of Zuni

Ramah Navajo Chapter

### Oklahoma

Absentee-Shawnee Tribe

Alabama-Quassarte Tribal Town

Apache Tribe of Oklahoma

Caddo Nation

Cherokee Nation

Cheyenne-Arapaho Tribes

Chickasaw Nation

Choctaw Nation of Oklahoma

Citizen Potawatomi Nation

Comanche Nation of Oklahoma

Delaware Nation

Eastern Shawnee Tribe

Fort Sill Apache Tribe

Iowa Tribe of Oklahoma

Kaw Nation

Kialegee Tribal Town

Kickapoo Tribe of Oklahoma

Miami Tribe

Muscogee (Creek) Nation

Otoe-Missouria Tribe

Pawnee Nation

Ponca Tribe

Sac and Fox Nation

Seneca-Cayuga Tribe

Thlopthlocco Tribal Town

United Keetoowah Band of Cherokee Indians

Wyandotte Nation

Kiowa Tribe of Oklahoma

Modoc Tribe

Osage Nation

Ottawa Tribe

Peoria Tribe of Indians of Oklahoma

Quapaw Tribe

Seminole Nation of Oklahoma

Shawnee Tribe

Tonkawa Tribe of Oklahoma

Wichita and Affiliated Tribes

**Texas**

Alabama-Coushatta Tribe Of Texas

Kickapoo Traditional Tribe of Texas

Ysleta Del Sur Pueblo

## Environmental Assessment Review and List of Recipients

The Final EA will be posted on the Mountain-Prairie Region Ecological Services website at <http://www.fws.gov/coloradoes/>. The Service will provide a press release to the area media. Interested individuals may obtain a copy of the EA upon request. If you have any questions, please contact Field Supervisor, Colorado Ecological Services Field Office, 134 Union Blvd., Ste. 670, Lakewood, CO 80228; or via email to [lesserprairiechicken@fws.gov](mailto:lesserprairiechicken@fws.gov).

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**Appendix A**  
**Oil and Gas Candidate Conservation Agreement with**  
**Assurances**

*(Document is available as a combined CCAA/CI on the website)*

**Appendix B**  
**Listed and Candidate Species Known to Occur within the**  
**Covered Area**