United States Department of the Interior

FISH AND WILDLIFE SERVICE

Texas Coastal and Central Plains Ecological Services Office
Fort Worth Sub-Office
3233 Curtis Drive
Fort Worth, Texas 76116
PHONE: 817/277-1100

In Reply Refer To:
2025-0066388

March 10, 2025

Memorandum

To: Regional Director, Region 2, Albuquerque, New Mexico

Through: Assistant Regional Director, Ecological Services, Region 2, Albuquerque, New Mexico

From: Field Supervisor CATHERINE YEARGAN Digitally signed by CATHERINE YEARGAN Date: 2025.03.10 12:47:26 -05'00'

Subject: Intra-Service Section 7 Biological Opinion for the Issuance of an Amended Section 10(a)(1)(B) Permit for Incidental Take of the Northern and Southern Distinct Population Segments of the Lesser Prairie-Chicken (*Tympanuchus pallidicinctus;* LEPC) to Lesser Prairie-Chicken Conservation LLC for the Amended *Oil and Gas Habitat Conservation Plan for the Lesser Prairie-Chicken*; Colorado, Kansas, New Mexico, Oklahoma and Texas

This transmits the U.S. Fish and Wildlife Service's (USFWS) Intra-Service Section 7 Biological Opinion (also: BO or opinion) on issuance of an amended Incidental Take Permit (permit) under section 10 of the Endangered Species Act of 1973, as amended (ESA) (16 U.S.C. 1531 *et seq*.) for the proposed amendment of the *Oil and Gas Habitat Conservation Plan for the Lesser Prairie-chicken; Colorado, Kansas, New Mexico, Oklahoma and Texas* (HCP). This opinion addresses the potential effects of approving the proposed amendment and authorizing an amendment to the 2022 permit (Permit Number PER0038832) in accordance with Section 10(a)(1)(B) of the ESA held by LPC Conservation LLC (applicant) for implementation of the HCP. We have determined that this action "may affect, is likely to adversely affect" the Northern and Southern Distinct Population Segments of the LEPC which are listed under the ESA as threatened and endangered, respectively. The HCP only covers the LEPC; participants must avoid or receive separate take authorization, as necessary for other federally listed species that occur within their respective project area(s) to be eligible for enrollment in the HCP. Therefore, the LEPC is the only species addressed in this Opinion.

The proposed amendment does not change any covered activities, effects to the species, quantification of impacts, the required minimization and mitigation measures, estimation of take, or the required reporting requirements included in the original HCP, which was approved and

permitted on May 27, 2022, by the USFWS. Because the proposed amendment does not alter any of the effects evaluated in the original Conference Opinion (CO) developed in support of the approval and permitting of the HCP in 2022, this BO will reference back to that analysis as appropriate, herein after referred to the "2022 CO". A complete administrative record of this conference is on file with the Southwest Regional Office of the USFWS.

1.0 CONSULTATION HISTORY

The consultation history for the original permit issuance and HCP can be found in the 2022 CO. The USFWS received an application to amend the permit, supported by an amended HCP, on December 19, 2024. On January 14, 2025, the USFWS published a Notice of Availability (NOA) in the Federal Register which began a 30-public comment period where the USFWS accepted comments on the application for an amended permit, the amended HCP, and the draft EA.

BIOLOGICAL OPINION

2.0 DESCRIPTION OF PROPOSED ACTION

Regulations implementing the ESA (50 CFR 402.02) define "action" as "all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies of the United States or upon the high seas."

The Federal action associated with this Opinion is the issuance of an amended permit under section 10(a)(1)(B) of the ESA supported by proposed amendments to the HCP to be consistent with changes in the HCP Plan areas, as well as other administrative changes.

The HCP was approved and permitted by the USFWS on May 27, 2022. At the time of approval and permit issuance, the Plan area for the HCP was the 2013 LEPC Estimated Occupied Range (EOR) boundary plus a 10-mile buffer. In 2022, after the Service's approval of the HCP and issuance of the permit, the Lesser Prairie-Chicken Interstate Working Group revised the EOR of the LEPC to expand the range boundaries north and east to include LEPC occurrence documented in Colorado and to connect to the Kansas Shortgrass/Conservation Reserve Program Mosaic. The amendment updates the HCP and permit to incorporate the revised EOR boundary and expand the Plan area boundary in the HCP accordingly (Figure 1).

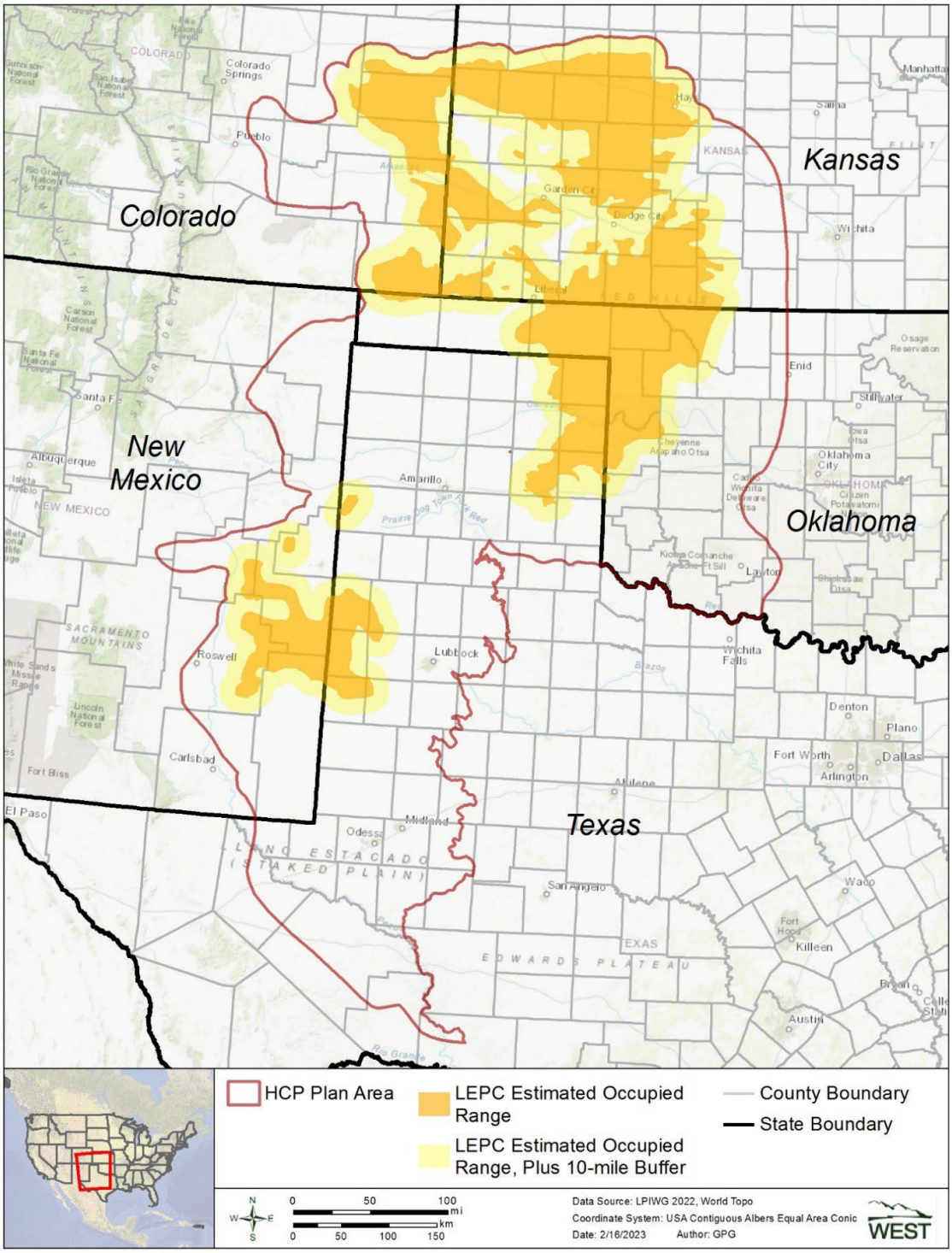

Figure 1. Updated LEPC estimated occupied range and Plan area of the LPC Conservation LLC HCP

Specifically, the amendment includes updated text, figures, and captions resulting from the update to the EOR and Plan area. In addition, the amendment includes updates to terminology used in figure legends; miscellaneous formatting, spelling, or grammatical corrections; and updates to the certificate of inclusion (CI) application found in Appendix B of the HCP. While the amendment expands the Plan area and Permit area from 92,224,490 acres to 92,957,555 acres (an increase of less than 1%), no changes were proposed to the duration of the HCP and associated permit, covered activities, effects to the LEPC, required minimization and mitigation, or original incidental take estimates and all remain consistent with the description of the HCP as reflected in Section 2.0 of the 2022 CO.

3.0 DESCRIPTION OF THE APPLICANT'S PROPOSED COVERED ACTIVITIES

The amendment does not change any of the covered activities, conservation measures, mitigation requirements or the amount or extent of the effects to the species, or the monitoring and reporting requirements. For a full description of these topics please refer to section 3 of the 2022 CO.

4.0 STATUS OF THE SPECIES

The LEPC is the only Covered Species addressed in the HCP and this opinion. This section provides a concise review of pertinent information on the species, including a species description, status and occurrence, life history, habitat requirements, population trends, and threats. For more comprehensive information regarding these subjects, refer to the USFWS' Species Status Assessment (SSA) (USFWS 2022) for the LEPC.

4.1 Species description

See section 4.1 of the 2022 CO.

4.2 Species Status and Occurrence

The LEPC has been considered for Federal listing under the ESA since 1997 (62 FR 36482 [July 8, 1997]), and was briefly listed as threatened in 2014 (79 FR 19973 [April 10, 2014], USFWS 2014a) until the ruling was overturned in court (US District Court for the Western District of Texas 2015) and Federal protection for the species was removed (81 FR 47047 [July 20, 2016]). In response to a new petition, on June 1, 2021, the USFWS proposed to list two distinct population segments of the LEPC. In 2022 the USFWS listed the Northern DPS as threatened with a 4(d) rule and the Southern DPS as endangered under the ESA (Figure 2) (87 FR 72674). While there are two distinct population segments of the LEPC, we did not break out the discussion of the basic biological needs, threats, and the effects of covered activities by DPS within this opinion because they are the same across ecoregions. During the later sections of this opinion when discussing the cumulative effects, conclusions, and incidental take statement we will include an analysis for each DPS.

For information related to species occurrence please refer to the description included in the 2022 CO and the USFWS LEPC SSA.

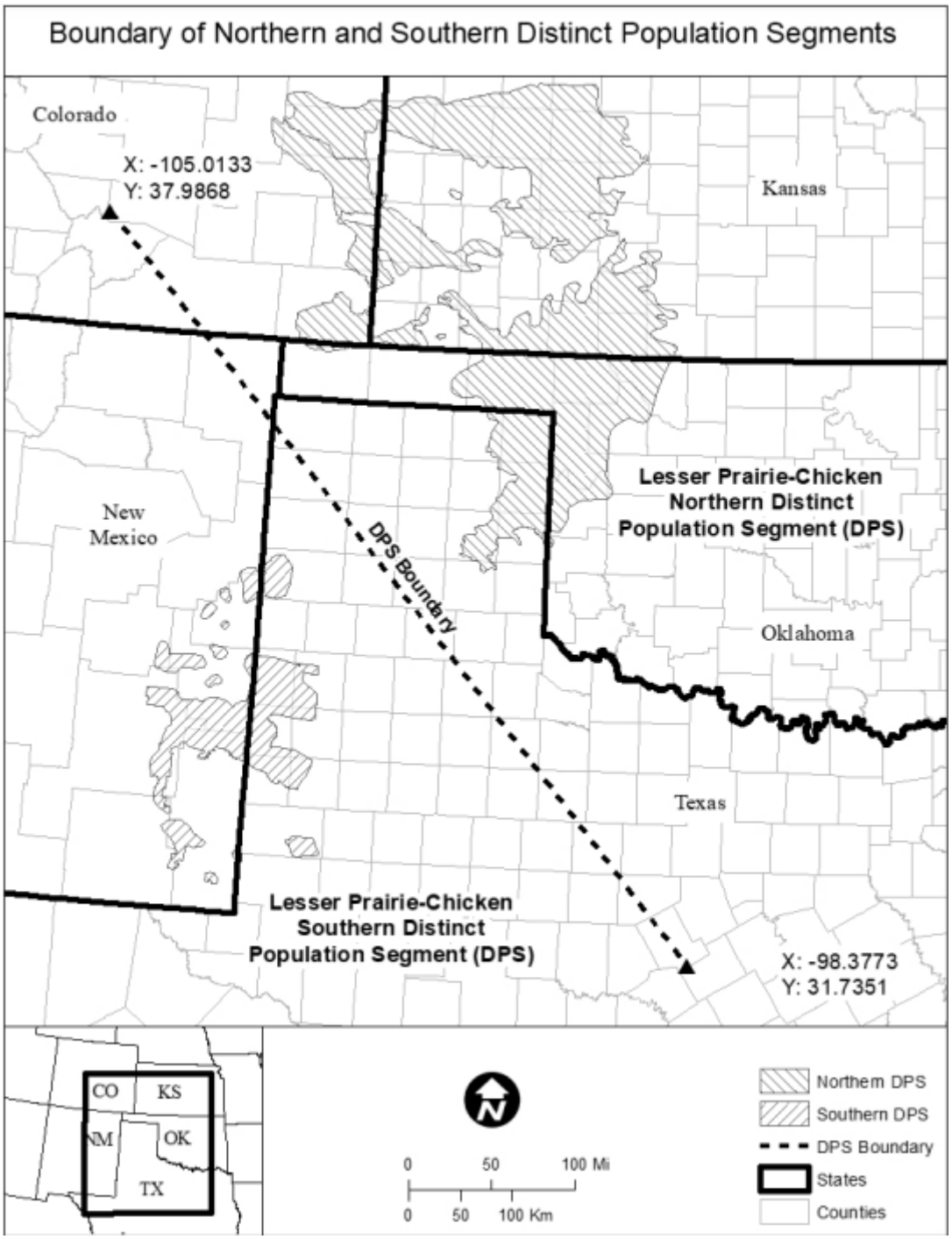

Figure 2. LEPC Distinct Population Segments

4.3 Life History and Demographics

For information related to species life history and demographics please refer to the description included in the 2022 CO and the USFWS LEPC SSA.

4.4 Habitat Characteristics

For information related to species life history and demographics please refer to the

description included in the 2022 CO and the USFWS LEPC SSA.

4.5 Current Habitat and Recent Population Trends by Ecoregion

For information related to current habitat and recent population trends by ecoregion please refer to the description included in the 2022 CO and the USFWS LEPC SSA.

4.6 Threats

For an analysis and summary of threats please refer to the 2022 CO and the USFWS LEPC SSA.

5.0 ENVIRONMENTAL BASELINE

Regulations implementing the ESA (50 CFR 402.02) define the environmental baseline as the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency's discretion to modify are part of the environmental baseline.

5.1 Status of the Species within the Action Area

The lands addressed in the HCP include the amended Plan Area and the amended Permit Area. The HCP Plan Area includes the geographic area where the Covered Activities, including conservation activities, described in the HCP can occur (USFWS and NMFS 2016). The Permit Area is a subset of the Plan Area and includes all areas where take of the Covered Species (LEPC) is reasonably certain to occur as a result of Covered Activities and is authorized under the permit. The specific areas within the Permit Area where take will be authorized is unknown at this time and will depend on the location of projects enrolled under the HCP/permit. For these reasons, the HCP Permit Area has been broadly defined to share the same outer boundary as Plan Area (Figure 1). The action requiring consultation in this opinion is the issuance of an amended permit within the expanded Plan Area; therefore, in this opinion, the terms Plan Area, Permit Area, and Action Area are interchangeable.

Within the Action Area are several Federal programs that currently provide conservation benefits to the species and directly address threats to the LEPC. Certain programs provide technical and financial assistance to landowners for habitat management for LEPC. Range-wide efforts include the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service's (NRCS) LEPC Conservation Initiative and Environmental Quality Incentives Program, and the USDA Farm Service Administration's Conservation Reserve Program. In addition, there are numerous conservation efforts being led at state and regional programs such as the USFWS Partners for Fish and Wildlife Program in all five LEPC states, the U.S. Forest Service (USFS) Cimarron and Comanche National Grasslands management, the U.S. Bureau of Land Management (BLM) Lesser Prairie-Chicken Habitat Preservation Area of Critical Environmental Concern. These existing Federal conservation programs

provide a net conservation benefit to the LEPC across its range. Additionally, there are multiple LEPC state led and private conservation efforts ongoing across the range of the of the LEPC, including, but not limited to, the Range-Wide Lesser Prairie-Chicken Conservation Plan and associated oil and gas CCAA, the Texas agricultural CCAA, the Oklahoma agriculture CCAA, the CCA/CCAA covering oil and gas as well agricultural activities in New Mexico, conservation actions by the State Wildlife Agencies, and by the Nature Conservancy. For a complete description of the current and projected future benefits of these programs please refer to the USFWS LEPC SSA (USFWS 2022).

Because the HCP Permit Area (Action Area) includes the entire range of the LEPC, refer to Status of the Species section (Section 4) of this opinion to address the Status of the Species in the Action Area.

6.0 EFFECTS OF THE ACTION

In accordance with 50 CFR 402.02, effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of all other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action (see §402.17).

6.1 Effects Resulting from Covered Activities

The Covered Activities for the HCP include all activities associated with oil and gas development, including ancillary ground disturbing activities associated with these project types within the HCP Permit Area that could impact potentially suitable LEPC habitat. In addition, the Covered Activities include grassland improvement and management activities that could occur in potential LEPC habitat on mitigation parcels in order to manage the parcel for LEPC. Adverse effects to LEPC resulting from these covered activities are described below or referenced to the 2022 CO.

6.1.1 Oil and Gas Development

For an analysis of the effects resulting from oil and gas development projects please refer to the analysis that was included in the 2022 CO. The proposed amendments do not change the effect of the Covered Activities from what was previously analyzed.

6.1.2 Mitigation Activities involving Grassland Improvement and Management

For an analysis of the effects resulting from grassland improvement and management please refer to the analysis that was included in the 2022 CO. The proposed amendments do not change the effects of the covered activities from what was previously analyzed.

6.2 Summary of Effect to the Species

For summary of effects to the species resulting from the Covered Activities please refer to the summary included in the 2022 CO. The proposed amendments do not change the effects of the covered activities from what was previously analyzed.

7.0 CUMULATIVE EFFECTS

Cumulative effects are those "effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area" considered in this Opinion (50 CFR 402.02).

The Action Area consists primarily of private and State lands interspersed with public land. Federally unregulated activities on state and private lands may adversely affect the LEPC through a variety of avenues. Many of these threats may exacerbate the normal effects of periodic drought on LEPC populations. Conversely, certain land management programs currently provide conservation benefits to the species and directly address threats to the LEPC. Major cumulative effects on LEPC populations are discussed below:

Energy Production/Transmission:

- Wind Energy Development – As discussed in Section 4.6.1.3 of the 2022 CO, the development of wind energy has the potential to impact the LEPC resulting in habitat loss and fragmentation. For a complete discussion on the of wind energy development refer to Section 4.6.1.3 of the 2022 CO. Within the LEPC SSA, the USFWS (2022) projects potential habitat loss for the LEPC from wind energy development under three separate scenarios. Those projections indicate that within the Northern DPS between 122,400 - 261,500 ac and in the Southern DPS between 41,700 - 66,500 ac of LEPC habitat may be adversely impacted over the next 25 years (USFWS 2022).
- Petroleum and Natural Gas Production – Section 4.6.1.2 of the 2022 CO describes the potential loss and fragmentation of LEPC habitat resulting from petroleum and natural gas production. Within the LEPC SSA, the USFWS (2022) projects potential habitat loss for the LEPC from petroleum and natural gas development under three separate scenarios. Those projections indicate that within the Northern DPS between 112,730 - 356,593 ac and in the Southern DPS between 136,539 - 243,749 ac of LEPC habitat may be adversely impacted over the next 25 years (USFWS 2022).
- Solar Energy Development – The development of solar energy facilities within the Plan Area also has the potential to impact the LEPC resulting in habitat loss and fragmentation. Impacts to the LEPC may be similar to those resulting from other actions which remove or fragment LEPC habitat. Although the USFWS expects new solar projects to be developed within the Plan Area, we do not have a means to project the extent of these impacts due to lack of data (USFWS 2022).
- Energy Transmission Line Development - As discussed in Section 4.6.1.5 of the 2022 CO, the development of new energy transmission line projects has the potential to impact the LEPC resulting in habitat loss and fragmentation. While the USFWS has been able to analyze the current impacts of transmission lines on the LEPC, due to the lack of information available to project the location (and thus effects to LEPC habitat), we could not quantify the future potential effect of habitat loss and fragmentation on the LEPC which could be caused by transmission line development. However, we do acknowledge potential habitat loss and fragmentation from transmission lines is likely to continue depending upon their location (USFWS 2022).

Land management practices:

- Conversion of grassland to cropland - Because much of the arable lands (lands capable of being used for row crops) have already been converted to cultivated agriculture, we do not expect future rates of conversion of grassland to cultivated agriculture to reach the level of conversion witnessed historically; however, conversion has continued to occur. Rates of future conversion of grasslands to cultivated agriculture in the Action Area will be affected by multiple variables including site-specific biotic and abiotic conditions as well as socioeconomic influences such as governmental agriculture programs, commodity prices, and the economic benefits of alternative land use practices. Within the LEPC SSA, the USFWS (2022) projects potential habitat loss for the LEPC from the conversion of grassland to cropland under three separate scenarios. Those projections indicate that within the Northern DPS between 136,469 – 378,766 ac and in the Southern DPS between 21,985 – 93,946 ac of LEPC habitat may be adversely impacted over the next 25 years (USFWS 2022).
- Livestock grazing - Grazing is expected to continue to be a primary land use on the remaining areas of grassland within the range of the LEPC in the future, and grazing has the ability to drastically influence habitat suitability for the LEPC. The USFWS' SSA for the LEPC (USFWS 2022) indicates that grazing can be an invaluable tool when managed to produce habitat conditions for the LEPC, although overutilization can have significant negative effects. Grazing management varies both spatially and temporally across the landscape. Additionally, grazing management could become more difficult in the face of a changing climate with more frequent and intense droughts. We acknowledge livestock grazing will influence LEPC populations in the future.
- Fire - As the effects of fire suppression continue to manifest throughout the Great Plains, the future impacts of wildfires on the LEPC are difficult to predict. If recent patterns continue with wildfires occurring at increasingly larger scales with less frequency and higher intensities than historical fire occurrence, there is an increasing potential of greater negative impacts on LEPC. Additionally, as climate change projections are indicating the possibility of longer and more severe droughts across the range of the LEPC, this could alter the vegetation response to fire both temporally and spatially. We are not able to quantify these impacts across the Action Area, but we acknowledge that fire (both prescribed fires and wildfire), or its absence, will continue to be an ecological driver across the range of the LEPC in the future with potentially positive and negative effects across both short-term and long-term timelines.
- Woody vegetation encroachment - Numerous studies have documented the continued increase in woody vegetation into grassland ecosystems. Due to the past encroachment trends and continued suppression of fire across the range of the LEPC, we expect this encroachment of woody vegetation into grasslands to continue, which will result in further loss of LEPC habitat. The degree of future habitat impacts will depend on land management practices and the level of conservation efforts for woody vegetation removal. Within the LEPC SSA, the USFWS (2022) projects potential habitat loss for the LEPC from the woody vegetation encroachment under three separate scenarios. Those projections indicate that within the Northern DPS between 360,512 – 875,823 ac and in the Southern DPS between 11,548 – 170,653 ac of LEPC habitat may be adversely

impacted over the next 25 years (USFWS 2022).

- Shrub control and eradication - The removal of native shrubs such as sand shinnery oak is an ongoing concern to LEPC habitat availability throughout large portions of the EOR, particularly in New Mexico, Oklahoma, and Texas. Suitable LEPC habitat historically included shrubs, and the permanently removal of shrubs may result in habitat that fails to meet the basic needs of the species, such as foraging, nesting, predator avoidance, and thermoregulation. In this portion of the range, nesting habitat primarily consists of low- growing shrubs and native grasses. In a few instances, herbicide use may aid in the restoration of LEPC habitat by allowing native grasses to increase where dense monocultures of sand shinnery oak exist. While relatively wide scale shrub eradication has occurred in the past, we do not have geospatial data to evaluate the extent to which shrub eradication may continue to contribute to habitat loss and fragmentation for the LEPC. While some Federal agencies such as BLM limit this practice in LEPC habitat, the practice still occurs through some Federal programs and on private lands. We do not have data available to project the potential scale of habitat loss likely to occur in the future due to shrub eradication.
- Collision mortality from fences - Mortality due to fence collision could have an impact on the LEPC but appears to be a function of fence density. Areas with lower fence densities (for example, New Mexico) likely have less of an impact than areas with higher fence densities (for example, Oklahoma). We do not expect fencing to have a major influence on LEPC populations in the future except for localized effects in areas with high densities of fences.

Non-federal road construction: We acknowledge that some additional habitat loss and fragmentation will occur in the future due to construction of new roads, but we do not have data available to inform projections on how much and where any potential new development would occur.

Hunting, and other recreational, educational, and scientific use: The LEPC is currently not permitted for hunting in any state, and thus we do not expect hunting to affect the LEPC in the future. Additionally, while other recreational, educational, and scientific uses have the potential to have some localized impacts, there is no evidence to suggest that these impacts will have a detectable effect on the LEPC population in the future.

Land management programs to benefit the LEPC: Within the Action Area are a number of state, and private programs that currently provide conservation benefits to the species and directly address threats to the LEPC. Certain programs provide technical and financial assistance to landowners for habitat management for LEPC. Several programs address industry siting, best management practices, and avoidance minimization and voluntary mitigation. Range-wide efforts include those identified in Section 5.1 of the opinion. Collectively these existing conservation programs provide a net conservation benefit to the LEPC across its range The USFWS' SSA (USFWS 2022) projected several of these enhancement efforts into the future at different levels of intensity (Table 1) across the four ecoregions occupied by the LEPC.

Table 1. Projected acreage of LEPC habitat enhancement from selected non-Federal sources over the next 25 years above and beyond the existing level of effort (USFWS 2022).

Enhancement Efforts	Total Level of Future Effort (Acres) at Year 25		
	Low	Continuation	High
Short-Grass/CRP Ecoregion			
KDWPT Enhancement Contract	0	6,740	17,500
Mixed-Grass Ecoregion			
WAFWA Management Plan	0	0	118,245
KDWPT Enhancement Contract	0	120	3,100
ODWC Management	1,400	3,300	6,400
ODWC Additional CCAA Enrollment	0	50,000	100,000
TPWD Additional CCAA Enrollment	0	0	55,000
Sand Sagebrush Ecoregion			
KDWPT Enhancement Contract	0	720	4,400
CPW Enhancement Contract	0	12,200	37,900
Shinnery Oak Ecoregion			
WAFWA Management Plan	0	0	8,129
NM CCAA Prescribed Fire	50,000	100,000	150,000
TPWD Additional CCAA Enrollment	0	25,000	60,000

CONCLUSION

After reviewing the current status of the LEPC in the Northern DPS, the environmental baseline, the effects of the proposed action and cumulative effects for this area, it is our biological opinion that the action, as proposed, is not likely to jeopardize the continued existence of the Northern DPS of the LEPC. We anticipate that the implementation of the proposed action will not appreciably diminish the likelihood of both the survival and recovery of the Northern DPS of the LEPC. We base this conclusion on the following, which is the same analysis that was included in the 2022 CO:

- Within the SSA for the LEPC, we estimated a maximum of approximately 3,000,000 ac of the LEPC habitat with the Northern DPS of the LEPC. While the requested 300,000 ac of take for this DPS would make up approximately 10% of the total acres of LEPC habitat, the HPC requires mitigation that when implemented will fully offset the impacts. The design of the mitigation framework established within the HCP accounts for both temporal and spatial impacts to the LEPC.
- It is required that all mitigation will be in place and meeting performance standards prior to impacts occurring to ensure there is no temporal loss for the species.
- The HCP implements a strategy that was developed in close coordination with the USFWS to ensure all effects that rise to the level of take are accounted for using the best available scientific information.
- Once take is quantified, using habitat as a proxy, that take must be mitigated for using the tiered mitigation system established within the HCP based upon the relative value of the habitat as defined by the Southern Great Plains CHAT.

Impacts to higher priority areas will require higher mitigation ratios as compared to impacts in lower priority areas. Overall, the mitigation ratios average 2 ac of mitigation for every 1 ac of impact. Additionally, all impacts must be offset using mitigation occurring in priority areas of equivalent or higher value areas as defined by the Southern Great Plains CHAT.

- After year 5, or the first 50,000 ac of mitigation are sold, for every 1 acre of impact, the HCP requires an additional minimum of 1 ac of restoration to result in no net loss of habitat. The remainder of the required mitigation can be targeted at additional restoration efforts or habitat enhancement.
- If all 300,000 ac of take for the Northern DPS are utilized for development this would result in mitigation requirements, on average, of approximately 300,000 ac of restoration actions and 300,000 ac of additional mitigation which could be targeted towards either restoration or enhancement of existing habitat. All the 600,000 total ac of mitigation would be required to be permanent. To ensure no net loss of habitat, on average, 1 ac of restoration for every 1 ac lost to development is required. An additional acre of either restoration or enhancement is required to account for the inherent uncertainties associated with the success of mitigation.
- The HCP requires that all required mitigation be permanent. A minimum of 50% of the mitigation must be provided via traditional permanent mitigation which is static on the landscape and includes a conservation easement. The HCP allows the remainder of the conservation to be provided via dynamic permanent mitigation.
- Static mitigation, including restoration and preservation of LEPC habitat, will meet all requirements set forth in the LEPC Mitigation Guidelines (USFWS 2014c). Dynamic mitigation, including restoration and preservation of LEPC habitat, will meet all requirements defined by the LEPC Mitigation Guidelines (USFWS 2014c) except for those relating to permanent conservation easement and components thereof.
- By utilizing the USFWS' LEPC Mitigation Guidelines (USFWS 2014c) while focusing on the creation of strongholds for the LEPC, the HCP will provide ecologically effective mitigation offsets for impacts and will also provide quantifiable progress toward securing additional strongholds for the LEPC.
- The HCP's measures to avoid, minimize and mitigate the impacts of taking are designed so that the mitigation ratios increase for impacts to higher quality LEPC habitat which compels developers to consider siting projects in areas where impacts from project footprints (physical habitat loss) and associated impact boundaries (function habitat loss) are minimized and/or occur within less suitable habitat. Mitigation ratios and credits are valued to create an incentive for minimizing impacts.
- The HCP incorporates adaptive management principles and processes including monitoring data to provide information about the need for, and type of, adjustments that should be made to the minimization and mitigation measures conformant with the assurances of the HCP. If it is found the mitigation (e.g., credits) does not lead to decreased fragmentation and disturbance of potentially suitable LEPC habitat, such that the majority (65%) of land cover within enrolled project footprints are intact grassland/shrubland cover, then adaptive management will be triggered to further disincentive habitat fragmentation by adjusting mitigation ratios.

After reviewing the current status of the LEPC in the Southern DPS, the environmental baseline, the effects of the proposed action and cumulative effects for this area, it is our biological opinion that the action, as proposed, is not likely to jeopardize the continued existence of the Southern DPS of the LEPC. We anticipate that the implementation of the proposed action will not appreciably diminish the likelihood of both the survival and recovery of the Southern DPS of the LEPC. We base this conclusion on the following, which is the same analysis that was included in the 2022 CO:

- Within the SSA for the LEPC we estimated that a maximum of approximately 1,000,000 ac of the LEPC habitat occurs within the Southern DPS of the LEPC. While the requested 200,000 ac of take for this DPS would make up approximately 20% of the total acres of LEPC habitat, the HCP requires mitigation that when implemented will fully offset the impacts. The design of the mitigation framework established within the HCP accounts for both temporal and spatial impacts to the LEPC.
- It is required that all mitigation be in place and meeting performance standards prior to impacts occurring to ensure there is no temporal loss for the species.
- The HCP implements a strategy that was developed in close coordination with the USFWS to ensure all effects that rise to the level of take are accounted for using the best available scientific information.
- Once take is quantified, using habitat as a proxy, that take must be mitigated for using the tiered mitigation system established within the HCP based upon the relative value of the habitat as defined by the Southern Great Plains CHAT. Impacts to higher priority areas will require higher mitigation ratios as compared to impacts in lower priority areas. Overall, the mitigation ratios average 2 ac of mitigation for every 1 ac of impact. Additionally, all impacts must be offset using mitigation occurring in priority areas of equivalent or higher value areas as defined by the Southern Great Plains CHAT.
- After year 5, or the first 50,000 ac of mitigation are sold, for every 1 ac of impact the HCP requires a minimum of 1 acre of restoration to result in no net loss of habitat. The remainder of the required mitigation can be targeted at additional restoration efforts or habitat enhancement.
- If all 200,000 ac of take for the Southern DPS are utilized for development this would result in mitigation requirements, on average, of approximately 200,000 ac of restoration actions and 200,000 ac of additional mitigation which could be targeted towards either restoration or enhancement of existing habitat. All of the 400,000 total ac of mitigation would be required to be permanent. To ensure no net loss of habitat, on average 1 ac of restoration is required for every 1 ac lost development. An additional acre of either restoration or enhancement is required to account for the inherent uncertainties associated with the success of mitigation.
- The HCP requires that all required mitigation be permanent. A minimum of 50% of the mitigation must be provided via traditional permanent mitigation which is static on the landscape and includes a conservation easement. The HCP allows the remainder of the conservation to be provided via dynamic permanent mitigation.
- Static mitigation, including restoration and preservation of LEPC habitat, will meet all requirements set forth in the LEPC Mitigation Guidelines (USFWS 2014c). Dynamic mitigation, including restoration and preservation of LEPC habitat, will meet all requirements defined by the LEPC Mitigation Guidelines

(USFWS 2014c) except for those relating to permanent conservation easement and components thereof.

- By utilizing the USFWS' LEPC Mitigation Guidelines (USFWS 2014c) while focusing on the creation of strongholds for the LEPC, the HCP will provide ecologically effective mitigation offsets for impacts and will also provide quantifiable progress toward securing additional strongholds for the LEPC.
- The HCP's measures to avoid, minimize and mitigate the impacts of taking are designed so that the mitigation ratios increase for impacts to higher quality LEPC habitat which compels developers to consider siting projects in areas where impacts from project footprints (physical habitat loss) and associated impact boundaries (function habitat loss) are minimized and/or occur within less suitable habitat. Mitigation ratios and credits are valued to create an incentive for minimizing impacts.
- The HCP incorporates adaptive management principles and processes including monitoring data to provide information about the need for, and type of, adjustments that should be made to the minimization and mitigation measures conformant with the assurances of the HCP. If it is found the mitigation (e.g., credits) does not lead to decreased fragmentation and disturbance of potentially suitable LEPC habitat, such that the majority (65%) of land cover within enrolled project footprints are intact grassland/shrubland cover, then adaptive management will be triggered to further disincentive habitat fragmentation by adjusting the mitigation ratios.

The conclusions of this BO are based on full implementation of the project as described in the Description of the Proposed Action section of the 2022 CO and Section 2.0 of this BO, including any conservation measures that were incorporated into the project design.

INCIDENTAL TAKE STATEMENT

Section 9 of the ESA and Federal regulations pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without special exemption. "Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. "Harm" is further defined (50 CFR § 17.3) to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. "Harass" is defined (50 CFR § 17.3) as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. "Incidental take" is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the ESA provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

The measures described below are non-discretionary and must be undertaken by the USFWS for the exemption in section 7(o)(2) to apply. The USFWS has a continuing duty to regulate the activity covered by this incidental take statement. If the USFWS (1) fails to assume and implement the terms and conditions or (2) fails to require the Applicant to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the grant document, the protective coverage of section 7(o)(2) may lapse. In order to monitor the

impact of incidental take, the USFWS must report the progress of the action and its impact on the species as specified in the incidental take statement. [50 CFR §402.14(i)(3)].

AMOUNT OR EXTENT OF TAKE

The proposed amendment analyzed within this BO does not alter the amount or extent of take quantified in the 2022 CO. That analysis is included below:

The estimated potential take of LEPC that could result from Covered Activities will be measured using acres of suitable LEPC habitat (as defined in Section 4.4 of the HCP) affected by individual projects participating in the HCP as a surrogate for direct take of LEPC individuals. A surrogate is required for the following reasons: 1) it is difficult to determine LEPC numbers at a site and predict how many individuals would be taken by development of oil and gas development within the Permit Area or implementation of grassland improvement and management activities; 2) the location and amount of suitable LEPC habitat can be readily quantified using geographic information systems (GIS) data; and 3) habitat loss and fragmentation is the primary threat affecting LEPC populations. Thus, because it is impracticable to express take or conservation benefits in terms of individuals, both the impacts of activities and the mitigation of those impacts are measured in acres of habitat.

There is a causal link between construction of anthropogenic features described in the covered activities and that may rise to the level of take of LEPC as these development activities as they result in habitat modification or degradation that significantly impairs the essential behavioral patterns of the LEPC. For instance, the infrastructure associated with the development of oil and gas development, including roads and powerlines, has been documented to result in avoidance of otherwise suitable habitat by grouse (USFWS 2022). Use of a surrogate for expressing take is consistent with current USFWS guidance that acknowledges that when the numerical amount of anticipated incidental take of individuals is difficult to determine, the acres of habitat affected may then be substituted for as a surrogate for take prediction, as provided in Section 8.2.2 of the HCP Handbook (USFWS and NMFS 2016).

While the HCP provides a rough estimate of all oil and gas development within the Permit Area that may impact LEPC, it is infeasible to precisely determine the acreage of impacts that could occur from project development in the Permit Area over the ITP term. In addition, it is infeasible to determine the total amount of mitigation that will be provided from sources other than a USFWS-approved bank or in-lieu fee program.

However, the requested authorized amount of take associated with the HCP is capped at 500,000 ac of potentially suitable LEPC habitat, with 300,000 ac for the Northern DPS of the LEPC and 200,000 ac of for the Southern DPS of the LEPC. Take associated with projects enrolled under the HCP will be calculated as impacts to potentially suitable LEPC habitat as defined through the project-specific Impact Assessment procedures described in Section 4.4 of the HCP, regardless of the specific type of project being constructed. Take associated with grassland improvement and management activities on mitigation parcels covered under the HCP will be calculated as the total acres of mitigation secured by means other than a USFWS-approved bank or in-lieu fee program. All LEPC take resulting from implementation of the HCP will be authorized through the associated 10(a)(1)(B) permit should the species become listed during the life of the permit.

EFFECT OF TAKE

In the accompanying BO, we have determined that the level of anticipated take is not likely to result in jeopardy to the Northern DPS of the LEPC. We have also determined that the level of anticipated take is not likely to result in jeopardy to the Southern DPS of the LEPC. Although we anticipate incidental take to occur, the implementation of the conservation measures and mitigation requirements proposed should ultimately result in minimization and offsetting of adverse effects.

REASONABLE AND PRUDENT MEASURES AND TERMS AND CONDITIONS

All conservation measures within the HCP including mechanisms to determine appropriate mitigation, mitigation effectiveness and compliance monitoring, structuring of mitigation cost to incentivize avoidance of high-quality LEPC habitats, and avoidance and minimization measures are incorporated herein by reference as reasonable and prudent measures and terms and conditions to address the incidental take of the LEPC. No additional reasonable and prudent measures were identified during the conference.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. We do not have any additional conservation recommendations at this time.

Reinitiation Notice

This concludes the consultation for the proposed issuance of an amended permit under section 10 of the ESA for the proposed amended *Oil and Gas HCP for the LEPC in Colorado, Kansas, New Mexico, Oklahoma, and Texas*. The USFWS shall re-initiate consultation if: 1) the amount or extent of incidental take for either DPS is exceeded; 2) new information reveals effects of the agency action that may affect the species in a manner or to an extent not considered in the conference opinion; 3) the agency action is subsequently modified in a manner that causes an effect to the species that was not considered in this opinion or written concurrences; or 4) a new species is listed or critical habitat designated that may be affected by the action.

If further assistance or information is required, please contact Clay Nichols at clay_nichols@fws.gov or Omar Bocanegra at omar_bocanegra@fws.gov.

Literature Cited

U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS). 2016a. Habitat Conservation Planning and Incidental Take Permit Processing Handbook. December 21, 2016. Updated January 18, 2018. Available online: https://www.fws.gov/endangered/what-we-do/hcp_handbook-chapters.html

U.S. Fish and Wildlife Service (USFWS). 2016b, entire. Analysis completed by USFWS on November 8, 2016. File name: Impact Radii examples (MD) 20161108.pdf.

U.S. Fish and Wildlife Service (USFWS). 2022. Species Status Assessment for the Lesser Prairie-chicken. (*Tympanuchus pallidicinctus*), Version 2.3. 110 pp. + Appendices.