

FINAL
Environmental Assessment for the
Renewable (Wind and Solar) Energy, Power Line, and Communication Tower
Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie-Chicken

LPC Conservation LLC
Colorado, Kansas, New Mexico, Oklahoma, and Texas



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TABLE OF CONTENTS

| | | |
|---------|--|----|
| 1 | PROJECT OVERVIEW AND BACKGROUND..... | 1 |
| 1.1 | Introduction and Background..... | 1 |
| 1.1.1 | Permit Structure | 3 |
| 1.1.2 | Plan Area and Permit Area..... | 3 |
| 1.2 | Regulatory Background | 3 |
| 1.2.1 | Endangered Species Act..... | 3 |
| 1.2.2 | National Environmental Policy Act..... | 4 |
| 2 | PURPOSE AND NEED | 5 |
| 2.1 | Purpose of the Environmental Assessment..... | 5 |
| 2.2 | Proposed Action – Issuance of an Incidental Take Permit | 5 |
| 2.3 | Need for Proposed Action..... | 6 |
| 2.4 | Decision to be Made | 6 |
| 3 | ALTERNATIVES..... | 6 |
| 3.1 | Alternative 1 (Proposed Action): Issue an Incidental Take Permit for the Applicant’s Habitat Conservation Plan..... | 7 |
| 3.1.1 | Covered Activities..... | 7 |
| 3.1.2 | Avoidance and Minimization Measures | 9 |
| 3.1.3 | Mitigation..... | 9 |
| 3.1.4 | Enrollment, Monitoring, and Reporting Processes..... | 11 |
| 3.1.4.1 | Enrollment | 11 |
| 3.1.4.2 | Monitoring and Reporting | 11 |
| 3.1.5 | Adaptive Management | 12 |
| 3.2 | Alternative 2: Issue an Enhancement of Survival Permit for a Candidate Conservation Agreement with Assurances | 13 |
| 3.3 | Alternative 3: No-Action Alternative | 14 |
| 4 | AFFECTED ENVIRONMENT | 15 |
| 4.1 | Biological Environment..... | 19 |
| 4.1.1 | Vegetation..... | 19 |
| 4.1.2 | Wildlife | 20 |
| 4.1.2.1 | General Wildlife..... | 20 |
| 4.1.2.2 | Eagles | 21 |
| 4.1.3 | Listed, Proposed, and Candidate Species..... | 21 |
| 4.2 | Physical Environment | 26 |
| 4.2.1 | Land Use | 26 |
| 4.2.2 | Noise | 26 |
| 4.2.3 | Visual Resources..... | 26 |
| 4.3 | Cultural Resources | 27 |

| | | |
|---------|--|----|
| 5 | ENVIRONMENTAL CONSEQUENCES | 27 |
| 5.1 | Biological Environment | 28 |
| 5.1.1 | Vegetation | 28 |
| 5.1.1.1 | Alternatives 1 and 2 | 29 |
| 5.1.1.2 | Alternative 3 (No-Action) | 31 |
| 5.1.2 | Wildlife | 31 |
| 5.1.2.1 | Alternatives 1 and 2 | 32 |
| 5.1.2.2 | Alternative 3 (No-Action) | 34 |
| 5.1.3 | Listed, Proposed, and Candidate Species..... | 35 |
| 5.1.3.1 | Alternatives 1 and 2 | 35 |
| 5.1.3.2 | Alternative 3 (No-Action) | 38 |
| 5.2 | Physical Environment | 38 |
| 5.2.1 | Land Use | 38 |
| 5.2.1.1 | Alternatives 1 and 2 | 39 |
| 5.2.1.2 | Alternative 3 (No-Action) | 41 |
| 5.2.2 | Noise | 41 |
| 5.2.2.1 | Alternatives 1 and 2 | 41 |
| 5.2.2.2 | Alternative 3 (No-Action) | 42 |
| 5.2.3 | Visual Resources | 42 |
| 5.2.3.1 | Alternatives 1 and 2 | 43 |
| 5.2.3.2 | Alternative 3 (No-Action) | 44 |
| 5.3 | Cultural Resources | 44 |
| 5.3.1 | Alternatives 1 and 2 | 44 |
| 5.3.2 | Alternative 3 (No-Action) | 45 |
| 5.4 | Cumulative Effects..... | 45 |
| 5.4.1 | Vegetation | 45 |
| 5.4.2 | Wildlife | 46 |
| 5.4.2.1 | General Wildlife | 46 |
| 5.4.2.2 | Eagles | 50 |
| 5.4.3 | Listed, Proposed, and Candidate Species..... | 50 |
| 5.4.4 | Land Use | 51 |
| 5.4.5 | Noise | 52 |
| 5.4.6 | Visual Resources | 52 |
| 5.4.7 | Cultural Resources | 53 |
| 6 | CONSULTATION AND COORDINATION | 53 |
| 6.1 | Agency Coordination | 53 |
| 6.2 | Distribution of the Draft Environmental Assessment | 53 |

LIST OF TABLES

| | |
|--|----|
| Table 4-1. Resources Considered and Rationale for Exclusion or Inclusion in Detailed Analysis..... | 16 |
| Table 4-2. Federally listed Species with the Potential to Occur in suitable LEPC habitat within the Plan Area for the Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken. ¹ | 23 |

LIST OF FIGURES

| | |
|---|----|
| Figure 1-1. Plan Area and estimated occupied range of lesser prairie-chicken in Colorado, Kansas, New Mexico, Oklahoma, and Texas. | 2 |
| Figure 4-1. Estimated occupied range of lesser prairie-chicken in Colorado, Kansas, New Mexico, Oklahoma, and Texas. | 25 |

LIST OF ATTACHMENTS

| | |
|---------------|--|
| Attachment A. | Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan for the Lesser Prairie-Chicken |
| Attachment B. | Federal and State-Listed, Proposed, Candidate Species, and Critical Habitats with the Potential to Occur within the Plan Area and be Impacted by the Issuance of the Incidental Take Permit for Lesser Prairie-Chickens. |
| Attachment C. | List of Preparers |
| Attachment D. | References Cited |
| Attachment E. | Response to Comments Received on the Draft Environmental Assessment for the Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie-Chicken |

ACRONYMS AND ABBREVIATIONS

| | |
|----------------------|--|
| Applicant | LPC Conservation LLC |
| AWWI | American Wind Wildlife Institute |
| BGEPA | Bald and Golden Eagle Protection Act |
| BLM | Bureau of Land Management |
| BMP | Best Management Practice |
| CCAA | Candidate Conservation Agreement with Assurances |
| CCAA Administrator | LPC Conservation LLC |
| CEQ | Council on Environmental Quality |
| CFR | Code of Federal Regulations |
| CI | Certificate of Inclusion |
| CI-holders | wind, solar, power line, and communication tower companies enrolled under the HCP or CCAA |
| Covered Activities | activities that may result in take of listed species for which LPC Conservation LLC has requested an incidental take permit |
| Covered Species | species that would be covered by the incidental take permit (lesser prairie-chicken [<i>Tympanuchus pallidicinctus</i>]) |
| Conservation Program | activities that would benefit the lesser prairie-chicken through habitat preservation and restoration |
| CRP | Conservation Reserve Program |
| CWA | Clean Water Act |
| DPS | distinct population segments |
| EA | Environmental Assessment |
| EO | Executive Order |
| ESA | Endangered Species Act of 1973 |
| ESP | Enhancement of Survival Permit |
| FR | Federal Register |
| Guidelines | <i>Guidelines for the Establishment, Management, and Operation of Permanent Lesser Prairie-Chicken Mitigation Lands</i> |
| HCP | <i>Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan for the Lesser Prairie-Chicken</i> |
| HCP Administrator | LPC Conservation LLC |
| IPaC | Information for Planning and Consultation |
| ITP | incidental take permit |
| LEPC | lesser prairie-chicken |
| LEPC habitat | herbaceous and hay/pasture land cover types |
| MLRA | Major Land Resource Area |

ACRONYMS AND ABBREVIATIONS – CONT'D.

| | |
|-----------------|--|
| MW | megawatt |
| NEPA | National Environmental Policy Act |
| NHPA | National Historic Preservation Act |
| NPDES | National Pollutant Discharge Elimination System |
| NRCS | Natural Resources Conservation Service |
| NRHP | National Register of Historic Places |
| Permit Area | the area in which Covered Activities occur |
| PV | photovoltaic |
| Plan Area | all areas affected directly and indirectly by activities associated with the Covered Activities and Conservation Program |
| Proposed Action | issuance of an incidental take permit and implementation of the <i>Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan for the Lesser Prairie-Chicken</i> |
| SEIA | Solar Energy Industries Association |
| Service | U.S. Fish and Wildlife Service |
| SGP CHAT | Southern Great Plains Crucial Habitat Assessment Tool |
| SHPO | State Historic Preservation Office |
| SWPPP | Stormwater Pollution Prevention Plan |
| THPO | Tribal Historic Preservation Office |
| U.S. | United States |
| USC | United States Code |
| USDA | U.S Department of Agriculture |
| USEPA | U.S. Environmental Protection Agency |
| WEST | Western EcoSystems Technology |
| WNS | white-nose syndrome |

1 PROJECT OVERVIEW AND BACKGROUND

1.1 Introduction and Background

The U.S. Fish and Wildlife Service (Service) received an application for a 30-year Incidental Take Permit (ITP), pursuant to the provisions of Section 10(a)(1)(B) of the Endangered Species Act of 1973, as amended (ESA; 16 United States Code [USC] §§ 1531–1544 [1973]) for the incidental take of lesser prairie-chicken (LEPC; *Tympanuchus pallidicinctus*) due to wind, solar, power line, and communication tower project development in Colorado, Kansas, New Mexico, Oklahoma, and Texas (Figure 1-1). Under Section 10 of the ESA, applicants may be authorized, through issuance of an ITP, to conduct activities that may result in take of species as long as the take is incidental to, and not the purpose of, otherwise lawful activities. In the case of non-listed species, such as LEPC, the ITP becomes effective if the species becomes listed during the life of the ITP. While the LEPC is not federally listed at this time, on June 1, 2021, the Service issued a Proposed Rule to list two distinct population segments (DPS) of the LEPC under the ESA, and requested public comments on the proposed listing (86 FR 29432). The Service proposes to list the Southern DPS as endangered, and the Northern DPS as threatened with a rule issued under ESA section 4(d), providing exceptions to ESA take prohibitions for agriculture and prescribed burning. The Service will consider public comments received as well as new data that becomes available, and will issue a Final Rule in the FR (typically within one year of the date of the Proposed Rule), which will become effective 30 days later. Based on this process, the earliest that the LEPC would be federally protected as an endangered or threatened species is July 2022.

The Applicant, LPC Conservation LLC (Applicant), has prepared the *Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan for the Lesser Prairie-Chicken* (HCP; Attachment A) that specifies, among other things, the impacts that would be likely to result from taking LEPC due to enrolled projects, and the measures the Applicant and all participants would undertake to minimize and mitigate such impacts. Due to the LEPC being proposed for federal listing, the Applicant is applying for an ITP to provide long-term assurances that no unauthorized take of LEPC would occur that could give rise to liability for the Applicant and enrolled companies. This Environmental Assessment (EA) was prepared in accordance with the National Environmental Policy Act of 1969 (NEPA; 42 USC §§ 4312–4370h [1970]) to evaluate the effects of implementing the Applicant's proposed HCP.

In the HCP, the Applicant notes that the LEPC range is within the U.S. geographic region anticipated to experience the highest projected growth in wind and solar energy generation over approximately the next 10 years (National Renewable Energy Laboratory 2012), resulting in construction and operation of additional power lines. Installation of additional communication towers is also anticipated to occur in the LEPC range over the ITP term, associated with the 5G network and other projected expansions.

RENEWABLE ENERGY, POWER LINE, AND COMMUNICATION TOWER
PROPOSED HCP AND ITP FOR LESSER PRAIRIE-CHICKEN

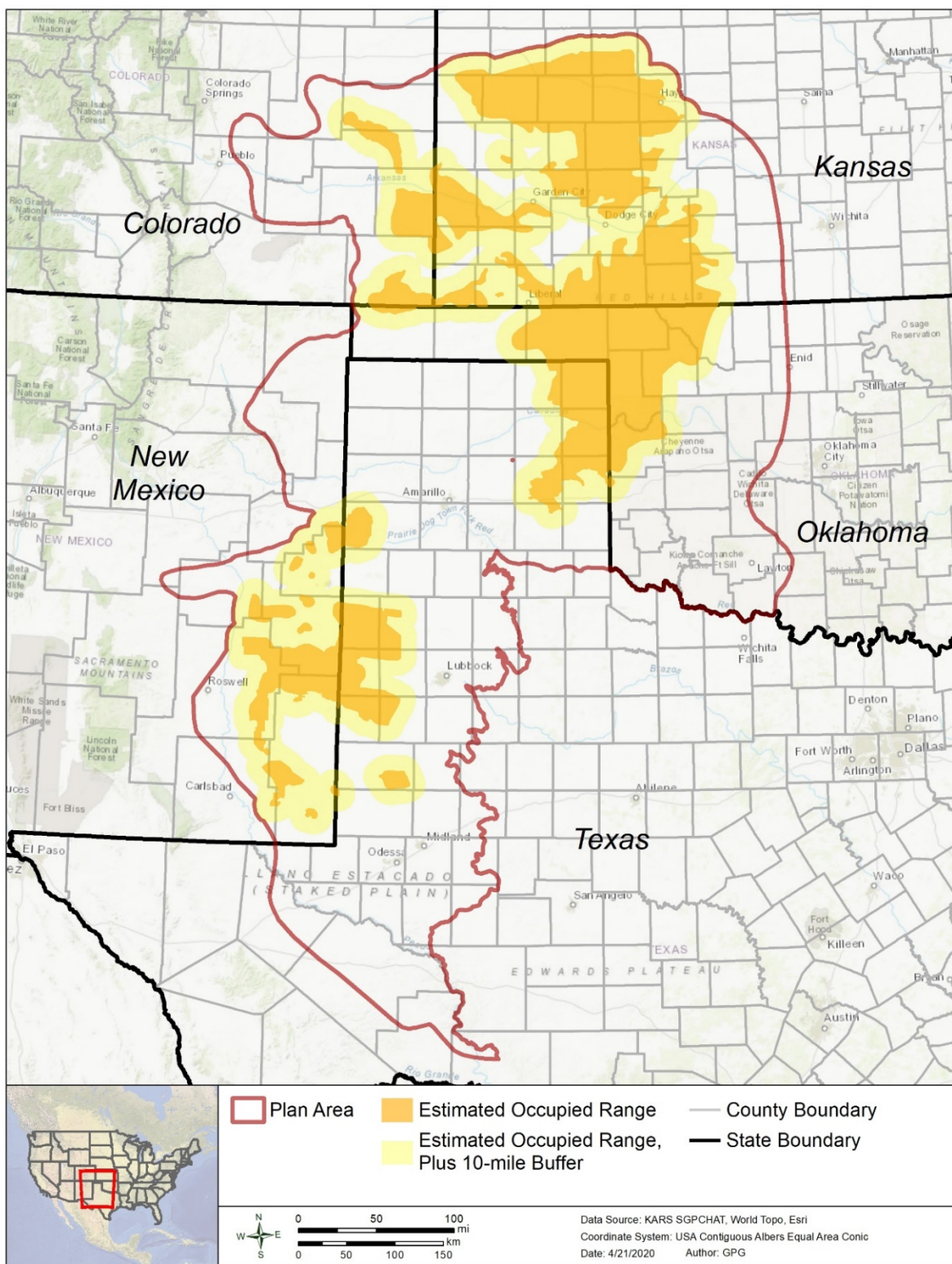


Figure 1-1. Plan Area and estimated occupied range of lesser prairie-chicken in Colorado, Kansas, New Mexico, Oklahoma, and Texas.

Implementation of the HCP would offset covered impacts by encouraging avoidance of LEPC habitat (i.e., herbaceous and hay/pasture land cover types) and, where complete avoidance is not possible, minimizing impacts to the LEPC. Remaining impacts to the LEPC would be offset by protecting stronghold habitat (important conservation areas within the species' native habitat, which have a minimum size of 25,000 acres and support multiple leks [Service 2012a]), as well as areas of high-quality habitat and suitable patch size to support viable LEPC populations, and by restoring currently unsuitable habitat.

1.1.1 Permit Structure

The ITP would follow a Programmatic structure, with LPC Conservation LLC serving as the permit holder following the terms of the HCP, under which a project could be enrolled through a Certificate of Inclusion (CI; see Section 1.3 in the HCP). Although a participant could have multiple projects enrolled in the HCP, each project would be assigned a unique CI. Enrolled projects would agree to and abide by all Applicant-committed obligations and requirements as described in Section 5 of the HCP. Should the LEPC become listed during the life of the ITP, incidental take associated with enrolled projects would be covered under the ITP as long as the CI-holders remain in compliance with the terms of the HCP. The Applicant would act as the administrator of the HCP, and thus, would oversee all HCP-related activities of enrolled projects to collectively manage HCP and CI commitments. The Applicant would also serve as the fiscal representative for the ITP and would manage endowments for funding the Conservation Program (see Section 5 of the HCP).

1.1.2 Plan Area and Permit Area

The Plan Area includes all lands that would be affected directly and indirectly by the Covered Activities (as described in Section 2 of the HCP and Section 3 of this EA) and the Conservation Program (as described in Section 5 of the HCP and Section 3.1.1 of this EA). As the geographic area where covered impacts would occur, the NEPA analysis and the ESA Section 7 intra-Service conference are focused on the Plan Area, depicted on Figure 1-1.

The Permit Area is a subset of the Plan Area and includes areas where take of LEPC may occur associated with implementation of the HCP, but excludes lands that would be used for mitigation or are otherwise protected (as described in Section 1.5 of the HCP). The specific boundaries of the Permit Area cannot be reasonably delineated at this time because they are dependent on the locations of the projects that enroll in the HCP and on the locations of exclusion areas. As such, the Permit Area shares the same boundary as the Plan Area (Figure 1-1).

1.2 Regulatory Background

1.2.1 Endangered Species Act

The Service is responsible for implementing and enforcing federal wildlife laws, including the ESA. Federally listed threatened and endangered species and designated critical habitat are governed by the ESA and its implementing regulations (50 Code of Federal Regulations [CFR] Parts 13 [1974] and 17 [1975]). The Service also maintains a list of species that are proposed for listing under the ESA. Proposed species are plant and animal species for which the Service has

sufficient information to propose them as endangered or threatened under the ESA, but the development of a proposed listing decision is precluded by other higher priority listing activities. These species are not afforded statutory protection under the ESA; however, federal agencies are required to confer with the Service on any agency action that is likely to jeopardize the continued existence of a proposed species, or result in the destruction or adverse modification of proposed critical habitat.

Section 9 of the ESA prohibits certain activities that directly or indirectly affect listed species. For the purpose of the EA and the proposed ITP, the most relevant activity is the take of wildlife species listed under the ESA. The ESA defines the term “take” to include harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect; or to attempt any of these acts (16 USC § 1532.19 [1973]). Take of listed wildlife is illegal unless otherwise authorized by the Service (or National Marine Fisheries Service in marine systems) pursuant to Section 10 of the ESA.

Section 10 of the ESA allows for exceptions to the take prohibitions described in Section 9 of the ESA. Section 10(a)(1)(B) of the ESA allows the Service and National Marine Fisheries Service to authorize the taking by non-federal entities (e.g., states, counties, local governments, private landowners) if such take is incidental to an otherwise lawful activity. To receive a permit, the applicant submits a conservation plan (also referred to as an HCP) that meets the criteria included in the ESA and its implementing regulations (50 CFR Part 17 [1975] and Part 222 [1999]).

Because issuance of an ITP under Section 10(a)(1)(B) of the ESA constitutes a federal action, the Service conducted an intra-agency conference under Section 7(a)(4) of the ESA. The intra-agency conference is between the Assistant Regional Director for Ecological Services and the field office that assisted the applicant in developing the HCP (in this instance, the Arlington Ecological Services Field Office). The Service’s internal conference on the issuance of an ITP under Section 10(a)(1)(B) represents the last internal “check” that the fundamental standard of avoiding jeopardy has been satisfied. Formal conference terminates with the preparation of a conference opinion, which provides the Service determination as to whether the Proposed Action is likely to jeopardize the continued existence of a species or result in the destruction or adverse modification of proposed critical habitat (available online: [Arlington Ecological Services Field Office - Home](#)).

Because the LEPC is currently proposed for listing under the ESA, it would also be possible for the Applicant to develop a Candidate Conservation Agreement with Assurances (CCAA) and apply for an Enhancement of Survival Permit (ESP) under Section 10(a)(1)(A) of the ESA. As described below in Section 3.2 of this EA, the Service has considered working with the Applicant on a CCAA and issuing an ESP as an alternative to the Proposed Action. Regulations for an ESP associated with a CCAA under the ESA can be found at 50 CFR 17.22(d)(1) for endangered wildlife species and 50 CFR 17.32(d)(1) for threatened wildlife species.

1.2.2 National Environmental Policy Act

NEPA is an environmental law fashioned to ensure careful decision-making with respect to the environment. NEPA also established the CEQ in the Executive Office of the President to formulate and recommend national policies to ensure that the programs of the federal

government exercise careful decision-making with respect to the environment. The CEQ set forth regulations (40 CFR Parts 1500–1508 [2019]) to provide direction to Federal agencies to determine what actions are subject to review; ensure that relevant environmental information is identified and considered early in the review process; ensure that Federal agencies conduct environmental reviews in a coordinated, consistent, predictable and timely manner; and to promote concurrent environmental reviews by federal agencies (40 CFR 1500.1(b)).

NEPA review also provides an opportunity for the public to be involved in the acting agency's decision-making process. The public had the opportunity to comment on the draft EA as well as the HCP and other application materials for 30 days, beginning on April 14, 2021. These materials were made available on the FR, the Service's Arlington Ecological Services Field Office webpage ([Arlington Ecological Services Field Office - Home](#)). The Service received several comments from state agencies, non-governmental organizations, and other interested parties. Substantive comments have been incorporated into the final EA; a summary of comments received on the draft EA and the Service's responses to those comments is included as Attachment E.

The culmination of the EA process is either a Finding of No Significant Impact or a decision to prepare an Environmental Impact Statement. This final EA and its analyses assist the Service with making an informed decision on issuance of an ITP.

2 PURPOSE AND NEED

2.1 Purpose of the Environmental Assessment

The Service's purpose in considering the Proposed Action is to fulfill our authority under the ESA, Section 10(a)(1)(B). Non-federal applicants, whose otherwise lawful activities may result in take of species, can apply to the Service for incidental take authority so that their activities may proceed without potential violations of Section 9 of the ESA. In the case of non-listed species in an ITP, the take authority becomes effective should the species become listed during the life of the ITP.

The purpose of the federal action is to address the application for an ITP to authorize take of the LEPC for Covered Activities (as described in Section 2 of the HCP and Section 3 of this EA) within the Permit Area. If the HCP meets the issuance criteria described in Section 10(a)(2)(B) of the ESA and 50 CFR 13.21 are met, then the Service shall issue an ITP for Covered Activities.

2.2 Proposed Action – Issuance of an Incidental Take Permit

The proposed federal action being evaluated by this EA is the request from LPC Conservation LLC to the Service for an ITP authorizing take of the LEPC, a species currently proposed for listing under the ESA, and the implementation of the associated HCP. The Applicant is seeking a 30-year permit term to implement its HCP with the potential for renewal pursuant to 50 CFR § 13.22. The Service's Proposed Action is to issue an ITP to the Applicant on the conditions predicated in the HCP. The purpose of issuing an ITP to the Applicant is to authorize take of LEPC associated with projects that obtain CIs through the process summarized below in Section

3.1.4, and described in detail in Section 5.4.1 of the HCP, should the species become listed during the life of the ITP and HCP.

2.3 Need for Proposed Action

Section 10 of the ESA specifically directs the Service to issue ITPs to non-federal entities when the criteria in Section 10(a)(2)(B) are satisfied by the Applicant. Once we receive an application for an ITP, we need to review the application to determine if it meets issuance criteria. We also need to ensure that issuance of the ITP and implementation of the HCP complies with other applicable federal laws and regulations. We must ensure our permit decision complies with the National Historic Preservation Act of 1966 (NHPA; 16 USC § 470 et. seq. [1966]); treaties; and Executive Order (EO) 11998 (1977), EO 11990 (1977), EO 13186 (2001), EO 12630 (1988), and EO 12962 (1995). In addition, the Service enforces other requirements of the ESA in addition to Section 10. If we issue an ITP, we may condition the permit to ensure the permittee's compliance with all ESA requirements.

In November 2020, the Service received an application from LPC Conservation LLC for an ITP for LEPC under the authority of Section 10(a)(1)(B) of the ESA. If the application is approved and the Service issues a permit, the ITP would authorize the Applicant to take the LEPC as a result of development and operation of wind, solar, power line, and communication tower projects, should the species become listed during the life of the ITP and HCP. The Service has prepared this EA to inform the public of our Proposed Action and the effects of the Proposed Action and its alternatives, seek information from the public, and to use information collected and analyzed to make better informed decisions concerning this ITP application.

2.4 Decision to be Made

The Service must decide whether to issue or deny the ITP. If the permit issuance criteria contained in Section 10(a)(1)(B) of the ESA are satisfied, the Service is required to issue the ITP to the Applicant. The Service may decide to issue an ITP conditioned on implementation of the HCP as submitted by the Applicant, or to issue an ITP conditioned on implementation of the HCP as submitted together with other measures specified by the Service. If the ESA's criteria are not satisfied, the Service is required to deny the permit request.

The Service has analyzed the impacts of the proposed Covered Activities on all elements of the natural and human environment that could be affected, including other wildlife species that occur within the covered lands. The Service has identified Alternative 1 (the proposed action, described in Section 3.1) as the selected alternative, and determined that the Applicant that the permit issuance criteria have been satisfied. Rationale for selecting this alternative is included in the findings document supporting the decision of whether to issue or deny the ITP.

3 ALTERNATIVES

Pursuant to NEPA, an environmental assessment should include a discussion of alternatives to the Proposed Action and the impacts of both the Proposed Action and alternatives considered (Section 102(2)(e) of NEPA; 40 CFR 1501.5(c)(2e) [2020]). This section describes the Proposed

Action and alternatives to that action, including an Action Alternative of Issuing an ESP for a CCAA, and the No-Action Alternative.

The alternatives described below were evaluated based on their capacity to meet the Service's purpose of and need for the action (described in Section 2). The potential effects on the human environment for each of the alternatives are described in detail in Section 5 – Environmental Consequences. As described in additional detail in Section 5.4, a substantial amount of growth in renewable energy and other development in this region is anticipated. As such, the Service assumes that a similar level of wind, solar, power line, and communication tower development would occur in a 30-year period on private lands within the Plan Area regardless of whether a programmatic ITP, programmatic ESP, or neither permitting mechanism, is available. This assumption is based on the current regulatory environment, namely, that the LEPC is proposed for listing under the ESA, and therefore neither the species nor its habitat are afforded legal protection.¹ Based on projected growth within the Plan Area associated with wind and solar energy generation over approximately the next 10 years (National Renewable Energy Laboratory 2012), as well as previous discussions with renewable energy developers and the Western Association of Fish and Wildlife Agencies (Service 2014), development within the Plan Area would likely move forward under the current regulatory environment, regardless of whether a programmatic permitting mechanism is available. If the proposed rule to list the LEPC is adopted and the LEPC is effectively protected under the ESA in 2022, this may have some influence on the rate of development in the absence of a programmatic permit; however, the extent to which LEPC listing would deter development is difficult to estimate. Based on the large estimated buildout for wind, solar, power line, and communication tower development within the Plan Area (see Table 4 of the HCP), it is unlikely that listing the LEPC would deter development enough to warrant inclusion of speculative analysis in this EA.

3.1 Alternative 1 (Proposed Action): Issue an Incidental Take Permit for the Applicant's Habitat Conservation Plan

Under Alternative 1, the Service would approve the HCP and issue a programmatic ITP with a 30-year permit term to the Applicant for the incidental take of LEPC for Covered Activities in the Permit Area. As the ITP-holder, the Applicant (in the role of HCP Administrator) would oversee enrollment of projects, and manage the requirements of the HCP and ITP, as summarized below.

3.1.1 Covered Activities

The Covered Activities would primarily include activities associated with wind, solar, power line, and communication tower development (e.g., site preparation, construction of temporary infrastructure necessary to complete construction, construction of project infrastructure) within the Plan Area. Covered Activities would include ground-disturbing activities associated with pre-

¹ In Colorado, LEPC is a Tier 1 species of greatest conservation need (Colorado Parks and Wildlife 2015), and the Colorado Oil and Gas Conservation Commission requires projects within 0.6 mile of leks active within the last 10 years to consult with Colorado Parks and Wildlife and implement best management practices to minimize impacts to LEPC. The other four states included in the Plan Area have not implemented state-specific regulatory measures to minimize impacts on LEPC (Van Pelt et al. 2013).

construction investigations; post-construction restoration; and some types of repairs required during operations and maintenance, project repowering, and project decommissioning. In addition, the Covered Activities would include grassland improvement and management activities in potential LEPC habitat on mitigation parcels in order to manage the parcel for LEPC. Both ground disturbance from initial construction and placement of infrastructure due to the Covered Activities is assumed to permanently impact LEPC habitat. Beyond initial construction of a project or grassland improvement activities on mitigation parcels, further ground-disturbing activities in those same areas would have minimal impacts to LEPC. Sections 2.1, 2.2, 2.3, 2.4, and 2.5 of the HCP provide additional detail on the types of Covered Activities that would be authorized under this Alternative.

Implementation of the HCP would use acres of suitable LEPC habitat impacted by the Covered Activities as a surrogate for exact numerical amounts of LEPC individuals taken. 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 wind, solar, power line, and communication tower projects 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 (79 FR 19973 [April 10, 2014]). 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 wind energy, including roads and powerlines, has been documented to result in avoidance of otherwise suitable habitat by grouse (USFWS 2021b). 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).

As described in the HCP, Covered Activities authorized under the ITP would be limited to maximum take of up to 500,000 acres of potentially suitable LEPC habitat within the Plan Area.

It is possible that ground disturbance (i.e., the limits of all grading and physical disturbance of soils or vegetation) and/or operational buffers of some enrolled projects may extend beyond the Plan Area boundary; for example, if an enrolled project is located adjacent to the boundary of the Plan Area, it is possible that some portions of the project footprint would extend beyond the Plan Area and that a portion of the LEPC avoidance buffer associated with aboveground facilities would also extend beyond the Plan Area. The ITP would only be applicable to lands within the Plan Area; therefore, if impacts to potentially suitable LEPC habitat would occur outside of the Plan Area, they would not be considered Covered Activities and the CI-holders would need to ensure compliance with the ESA for those impacts under different means.

3.1.2 Avoidance and Minimization Measures

Section 5.3 of the HCP provides details on measures that would be taken by CI-holders to avoid and minimize the impact of the taking associated with enrolled projects. These measures are summarized here.

During the siting of new projects, measures to minimize the amount of impacts to potentially suitable LEPC habitat would include:

- locating new project infrastructure, associated temporary impact areas, and impact buffers outside of suitable habitat, or within spaces that have existing impacts;
- co-locating new infrastructure (e.g., access roads and power lines) within the impact buffers of other proposed or existing features on the landscape; and
- burying linear facilities (e.g., power lines and transmission lines), where practicable given geographic, geotechnical, and engineering constraints.

During the LEPC breeding season (March 1 – July 15), enrolled projects would implement the following measures to minimize disturbance associated with increased noise and human activity:

- minimize noise and blasting, traffic volume and speed, and access points; and
- within three miles of leks that have been documented as active within the previous five years;
 - avoid off-road travel, where feasible, and
 - avoid non-emergency activities between 3:00 a.m. and 9:00 a.m.

3.1.3 Mitigation

Impacts to suitable habitat that cannot be avoided or remain after minimization measures would be offset by CI-holders through one of three Service-approved mechanisms: the purchase of mitigation credits from a mitigation bank, an in-lieu fee program, or permittee-responsible mitigation projects. As described in Section 5.3.3 of the HCP, mitigation fees would cover the conservation and management of mitigation lands in perpetuity, fully offsetting the impacts of CI-holder enrolled projects on LEPC habitat.

All lands used to provide mitigation for impacts from Covered Activities in this Alternative would be managed under a Service-approved mitigation plan selected by the HCP Administrator. The Service's *Guidelines for the Establishment, Management, and Operation of Permanent Lesser Prairie-Chicken Mitigation Lands* (Guidelines, Service 2014b) would be used to determine siting of conservation lands to be used in mitigation (see Section 5.3.3 of the HCP). Under the Proposed Action, the primary mitigation strategy would be to create LEPC strongholds. Mitigation lands would be managed to either preserve or restore LEPC habitat, and mitigation parcels would provide either static or dynamic LEPC mitigation (described in detail in Section 5.1 of the HCP). In each of these cases, mitigation parcels and management would be approved by the Service.

Static mitigation includes land parcels (typically banking parcels) that would be managed for LEPC and protected in perpetuity through a conservation easement. Static mitigation remains in

the same geographic location on the landscape and can include management activities to preserve (preservation: maintenance or enhancement of existing habitat) or restore (restoration: conversion of unsuitable habitat into suitable habitat) LEPC habitat. Dynamic mitigation can also serve to preserve or restore LEPC habitat in perpetuity; however, unlike static mitigation, land utilized for dynamic mitigation can be moved within the landscape. The total mitigation offset for dynamic mitigation is retained in perpetuity, though the physical location of mitigation sites may shift within the landscape over time. Because of this, lands managed to provide dynamic LEPC mitigation can move within the Plan Area, but the total offset value (total acreage) does not diminish over time or with relocation. The Applicant anticipates 95% of all mitigation provided under the HCP would be static.

Mitigation in the form of habitat preservation (which may be in the form of static and/or dynamic mitigation) would focus on protecting currently suitable LEPC stronghold habitat and would be the preferred form of mitigation until 50,000 acres of Service-approved stronghold habitat or connectivity corridors have been preserved. Some or all of these 50,000 acres may become protected through means other than implementation of the HCP, however the HCP Administrator would ensure the total 50,000 acres are prioritized over other mitigation parcels. After the initial 50,000 acres is secured, through the HCP or other means, the remaining mitigation would be balanced between preservation and restoration, with restoration of at least one acre of habitat for every one acre of LEPC habitat impacted. Restoration activities would include the removal of woody invasive species (e.g., mesquite [*Prosopis* spp.], eastern red cedar [*Juniperus virginiana*]), removal of old infrastructure such as old barns and unused roads, conversion of cultivated croplands into native grassland, and any additional restoration activities approved by the Service. Restoration activities would be implemented using the most current scientific strategies, knowledge, and expertise to ensure restoration success.

Impacts to LEPC habitat are assumed to be permanent, and due to the inherent uncertainty associated with mitigation, particularly habitat restoration parcels becoming fully functional, mitigation will be provided in perpetuity. Additionally, the mitigation is expected to fully offset the lost value of the impacted habitat because overall project impacts would be mitigated at ratio greater than 1:1, with higher mitigation ratios required for impacts to higher quality LEPC habitat. The Applicant proposes to rank the relative quality of LEPC habitat using by the Southern Great Plains Crucial Habitat Assessment Tool, version 3.0 (SGP CHAT), which is a spatial tool that helps to prioritize conservation efforts for the LEPC (Western Association of Fish and Wildlife Agencies 2020). SGP CHAT defines categorical mitigation offset requirements, based on the quality of the LEPC habitat that would be impacted. Category 1 represents the highest quality (focal) areas for LEPC, and Category 4 represents the relatively lowest quality areas, generally considered as areas as potentially suitable for future LEPC range expansion. Impacts to suitable LEPC habitat for each enrolled project would be determined through a project-specific impact assessment, and offset at a mitigation ratio determined according to the SGP CHAT category in which the impacts occur (see SGP CHAT categories and mitigation ratios in Section 5.3.3.1 of the HCP). If an updated version of SGP CHAT becomes available during the ITP term, it may be adopted into the HCP if agreed upon by the Service and HCP Administrator. Section 5.3.3.1 of the HCP provides a detailed description of the approach that would be followed to determine the exact amount of required mitigation acreage for a given enrolled project.

Mitigation provided to offset impacts would be of an equivalent or higher SGP CHAT category than the impacted areas. If mitigation is unavailable within an equivalent or higher SGP CHAT category and cannot be secured, coordination between the HCP Administrator, potential CI-holders, and the Service would occur to determine an agreed-upon solution.

As described above, impacts to suitable habitat would be offset through the purchase of mitigation credits from a Service-approved mitigation bank, in-lieu fee program, or permittee-responsible mitigation project. A project-specific Conservation Plan for Mitigation Parcels would be developed for all permittee-responsible mitigation projects, to ensure grassland improvement and maintenance activities would be appropriately executed and timed to minimize risks to any LEPC occupying the parcel at the time of the activities (see Section 9.2 of the HCP). The Applicant anticipates approximately 50,000 acres of mitigation would be from permittee-responsible mitigation projects (i.e., from a source other than a Service-approved mitigation bank or in-lieu fee program), which would be subject to Service approval during the CI application review process. However, the requested take of up to 500,000 acres of LEPC habitat could be flexibly allocated among all Covered Activities, including permittee-responsible mitigation.

3.1.4 Enrollment, Monitoring, and Reporting Processes

3.1.4.1 Enrollment

A potentially eligible project seeking to obtain a CI would coordinate with the HCP Administrator and develop the required application materials; the application process is described in Section 8.4 of the HCP, with a sample application form provided as Appendix B to the HCP. Each project would complete the six-step impact assessment process (described in detail in Section 4.4 of the HCP) to determine the anticipated project-specific impacts to LEPC. Project-specific terms and conditions would be documented within a Participation Agreement, and the applicant for the CI would be required to submit an applicable enrollment fee (Section 7.2.2 of the HCP), administration fee (Section 7.2.3 of the HCP), and proof of funding assurances (Section 7.1 of the HCP). Once the required fees and funding assurances have been received, the HCP Administrator would issue the project a CI, following the process and terms described in Sections 8.5 and 8.6 of the HCP.

3.1.4.2 Monitoring and Reporting

Throughout the ITP term, the HCP Administrator would be required to conduct both compliance and effectiveness monitoring for all enrolled projects. Compliance monitoring would occur to ensure Covered Activities are conducted in accordance with the terms of the CIs, HCP, and ITP. Effectiveness monitoring would ensure that minimization and mitigation measures are implemented and are having the intended effect. In addition, mitigation monitoring and reporting would be required for enrolled projects; although monitoring and reporting would be the responsibility of the provider of the mitigation (e.g., a bank, in-lieu fee program, or permittee-responsible mitigation), the HCP Administrator would provide the Service with a combined mitigation monitoring report for the enrolled projects. The following sections summarize monitoring and reporting that would occur under Alternative 1, which are described in detail in Section 5.4 of the HCP.

Compliance Monitoring and Reporting

The HCP Administrator would submit a draft annual compliance monitoring report to the Service on or before March 15 of each year following ITP issuance. A detailed list of the items that would be monitored within the Plan Area both annually and cumulatively over the ITP term and included in the annual compliance monitoring report are provided in Section 5.4.2 of the HCP. CI-holders would be obligated to provide the HCP Administrator with documentation of project-specific compliance (documentation of project-specific impacts and mitigation offsets). Documentation of compliance from the CI-holders would be appended to the annual compliance monitoring report and provided to the Service.

Effectiveness Monitoring and Reporting

The HCP Administrator would be responsible for monitoring the progress made towards achieving the HCP's biological goals and objectives, which would be documented in an effectiveness monitoring report and provided to the Service annually (Section 5.4.3 of the HCP). The reporting timeline and general reporting methods described above for compliance monitoring would apply to the effectiveness monitoring report. Similarly, CI-holders would provide documentation to the HCP Administrator for project-specific minimization measures implemented to reduce impacts to suitable LEPC habitat, which would be appended to the effectiveness monitoring report. This report would also include a summary of the types and category of mitigation implemented, both for the reporting period and cumulatively.

Mitigation Monitoring and Reporting

Mitigation monitoring would be designed to demonstrate the conservation of relatively large tracts of un-fragmented LEPC habitat. The requirements for mitigation monitoring include interim and long-term management and monitoring, as well as reporting. Mitigation monitoring reports would be submitted by the mitigation entities to the HCP Administrator annually. Each report submitted by the mitigation entities would include itemized accounts of the management tasks conducted during the reporting period in accordance with the project-specific mitigation contracts and management plans, as described in Section 5.4.4 of the HCP. The HCP Administrator would then compile the received mitigation monitoring reports and submit the reports to the Service using the same reporting timeline and general reporting methods as the annual compliance monitoring report described above.

3.1.5 Adaptive Management

Implementation of the HCP has been designed to allow for adaptive management throughout the 30-year ITP term. As Section 5.5 of the HCP describes in more detail, the annual monitoring and reporting process would be used as a regular check to determine whether the HCP is being implemented correctly, and if progression is occurring towards the goals and objectives of the HCP. The Service would work with the HCP Administrator to determine whether and what kind of adaptive management measures may be warranted, as well as the appropriate monitoring approach to refine any resulting adjustments to minimization and/or mitigation measures.

Over the 30-year ITP term, there is uncertainty in the extent of take by Covered Activities (although impacts to suitable LEPC habitat would be limited to 500,000 acres), and in the overall

risk to LEPC due to changes in the availability and/or quality of habitat. This, in turn, could affect the distribution and/or number of LEPC individuals within the Plan Area. Because of these uncertainties, changes in conservation measures would be evaluated in relation to impacts to habitat, and, as needed, addressed through adaptive management responses. Specific adaptive management measures and responses are described in detail in Section 5.5 of the HCP.

3.2 Alternative 2: Issue an Enhancement of Survival Permit for a Candidate Conservation Agreement with Assurances

Under Alternative 2, instead of issuing an ITP, the Service would issue an ESP to the Applicant for the Covered Activities described above in Section 3.1.1. The permit term for the ITP (Alternative 1) and ESP (Alternative 2) would be the same, at 30 years. Under this alternative, it is assumed the Applicant (in the role of CCAA Administrator) would require enrolled projects to implement all the avoidance, minimization, mitigation, monitoring, adaptive management, and reporting processes described in the HCP, which would be technically termed a CCAA under this alternative. Therefore, the description of the HCP as described in Sections 3.1.1 through 3.1.5 for Alternative 1 would also apply to Alternative 2, with the exceptions of the time period available for enrollment in the programmatic permit, and the ability to enroll large tracts of land, providing coverage for multiple projects.

Under Alternative 2, qualifying landowners or developers could obtain a CI under the programmatic ESP only until the effective date of the final rule listing the LEPC. This differs from Alternative 1, under which individual qualifying projects would be able to apply for a CI under the process as described in Section 3.1.4 for the entire permit term, regardless of whether and when the LEPC is listed under the ESA. Any CIs issued under Alternative 2 prior to the official listing date would receive take coverage under Section 10 of the ESA for the remaining portion of the 30-year ESP term, but no additional CIs would be issued after the effective date of the listing.

Under Alternative 2, landowners or developers could obtain a CI that includes all of their property interests and may include more than one project (referred to as “all activities” enrollment option), as long as the application materials include all of the information needed to quantify the impact to LEPC habitat and the resulting mitigation requirement (i.e., the site-specific impact assessment has been conducted for lands where take coverage is requested, allowing the required mitigation ratio to be determined according to the SGP CHAT category in which the impacts would occur). In this way, a project that is planned, but not constructed, prior to listing the LEPC could be enrolled in the CCAA. However, after the effective date of the final rule listing the LEPC, wind, solar, power line, and communication tower projects within the Plan Area on land that was not previously enrolled in the CCAA would need to pursue other avenues (avoid take, or apply for separate individual or programmatic ITPs under Section 10(a)(1)(B) of the ESA) to maintain compliance with the ESA.

It is unknown exactly when potential participating landowners or developers would enroll during the 30-year permit term; it is also unknown when and if the LEPC will be officially listed under the ESA. For purposes of the analysis in this EA, the Service assumes that the LEPC would be listed as early as May 2022 with an effective date in July 2022, providing a minimum time period of approximately 6 months for eligible landowners or developers to enroll in the CCAA

under the programmatic ESP. Under Alternative 2, the Service assumes that landowners or developers would likely enroll larger areas of land under the CCAA, through an “all activities” enrollment option, relatively soon after issuance of an ESP, prior to an LEPC listing decision, in order to take advantage of the legal certainties associated with the take authorization for any Covered Activities on those lands that occur after the listing decision. Under this assumption, it is likely that a similar amount of projects would effectively be enrolled under both Alternatives 1 and 2.

Because it is anticipated that a similar level of wind, solar, power line, and communication tower development within the Plan Area would occur regardless of whether a programmatic ITP or a programmatic ESP is available, it is likely that Alternative 2 would result in a similar amount of overall acres of impacts associated with these types of development being enrolled in conservation plans (with associated mitigation) as Alternative 1. Early in the permit term, it is likely that many landowners and developers would enroll larger areas in the CCAA, through an “all activities” enrollment option in order to ensure take associated with the Covered Activities would be authorized if the LEPC is listed. If the LEPC is listed, wind, solar, power line, and communication tower projects within the Plan Area on land that was not previously enrolled in the CCAA would need to pursue other avenues to maintain compliance with the ESA, which would likely include implementation of conservation and mitigation plans for unavoidable impacts to LEPC.

3.3 Alternative 3: No-Action Alternative

Under the No-Action Alternative, the Service would not issue an ITP or an ESP, and therefore a programmatic permitting structure would not be available for willing participants to apply for CIs. While the LEPC remains unlisted, these otherwise potentially participating entities (i.e., wind, solar, power line, and communication tower companies) would have little economic or legal incentive to voluntarily initiate conservation or management activities to benefit the species. Therefore, conservation measures above and beyond those directed by existing Federal, State, and local laws, policies, or regulations likely would not be implemented, and the Covered Species would not gain additional protections over what currently exists. On private lands, where the state or federal government has no authority to protect or direct the management of LEPC habitat, the Conservation Programs would continue to be implemented entirely at the discretion of the landowners and private developers.

The Service assumes that many of the activities that would continue under the No-Action Alternative include the Covered Activities described above in Section 3.1.1. While the LEPC remains unlisted, individual projects would incorporate varying voluntary amounts of LEPC risk assessment, avoidance, and minimization measures in the design, construction, and operation of their projects. Further, it is assumed that little to no mitigation would occur associated with these projects on private lands while the LEPC is unlisted under the No-Action Alternative, because it would not be required.

If in the future the LEPC becomes federally listed, wind, solar, power line, and communication tower projects would need to modify their design and/or operations under the No-Action Alternative to avoid take; alternatively, projects could seek to obtain an individual or programmatic ITP under Section 10(a)(1)(B) of the ESA. As described in Section 1.1, the

Service issued a Proposed Rule to list two DPSs of the LEPC under the ESA on June 1, 2021 (86 FR 29432). The Service will consider public comments received as well as new data that becomes available, and will issue a Final Rule in the FR (typically within one year of the date of the Proposed Rule), which will become effective 30 days later. Based on this timeline, the earliest the LEPC would be federally protected as an endangered or threatened species is July 2022. Based on the large estimated buildout for wind, solar, power line, and communication tower development within the Plan Area (see Table 4 of the HCP); the unpredictability of whether the LEPC will be listed under the ESA; and because the time of listing (if it occurs) is unknown, anticipating that project development would decline or that a reduced amount of LEPC habitat would be impacted if the LEPC becomes listed would be speculative and is not analyzed further in this EA.

Issuance of a programmatic ITP under Alternative 1, and to a lesser extent a programmatic ESP under Alternative 2, would allow for a greater number of projects to utilize a standardized enrollment process if the LEPC is listed. It is likely that issuance of a programmatic ITP under Alternative 1 or the issuance of a programmatic ESP under Alternative 2 would result in many more enrolled projects that would commit to following the avoidance, minimization, mitigation, monitoring, and adaptive management processes described above in Section 3.1, than the voluntary and individual approach to LEPC protection that would occur under the No-Action Alternative.

4 AFFECTED ENVIRONMENT

The affected environment is the area and its resources (e.g., biological, physical, cultural) potentially impacted by the Proposed Action and alternatives. The affected environment includes portions of the Plan Area and includes all areas where the Covered Activities and Conservation Program (described in Section 3.1.3 of this EA and Chapter 5 of the HCP [Attachment A]) would occur. Because the Applicant is requesting authorization for incidental take of LEPC associated with Covered Activities, our assessment focuses on areas where LEPC take may occur within the Plan Area.

A summary of our assessment of the affected environment is provided in Table 4-1, below. This EA presents a detailed analysis of those resources that would be subject to short- or long-term effects if a programmatic ITP or ESP is issued authorizing take of LEPC, which include the biological environment (vegetation; wildlife; and listed, proposed, and candidate species), the physical environment (land use, noise, visual resources), and cultural resources. Potential impacts to other resources (i.e., geology and soils, water resources, air quality, hazardous materials/waste, recreation, socioeconomic resources, and transportation) would be both minor and similar under the three alternatives being considered; therefore, they are not discussed further.

RENEWABLE ENERGY, POWER LINE, AND COMMUNICATION TOWER
PROPOSED HCP AND ITP FOR LESSER PRAIRIE-CHICKEN

Table 4-1. Resources Considered and Rationale for Exclusion or Inclusion in Detailed Analysis.

| Resource | Not Present | Present, Excluded from Detailed Analysis | Present, Included in Detailed Analysis | Rationale |
|---|-------------|--|--|---|
| Biological Environment | | | | |
| Vegetation | | | X | Each of the three alternatives ¹ would result in both temporary and permanent impacts to vegetation (see Section 4.1.1). |
| Wildlife | | | X | Each of the three alternatives would affect locally occurring wildlife, likely resulting in both temporary and permanent impacts to wildlife (see Section 4.1.2). |
| Listed, Proposed, and Candidate Species | | | X | Each of the three alternatives may affect state- and/or federally listed, proposed, or candidate species, including the LEPC (see Section 4.1.3). |
| Physical Environment | | | | |
| Air Quality | | X | | Each of the three alternatives would have limited temporary effects on air quality; these impacts would occur during construction, maintenance, repowering, and decommissioning of enrolled projects, and during grassland improvement and management activities associated with the Conservation Program. These activities would be conducted in accordance with federal, state, and local air permit requirements; air quality impacts would primarily be associated with construction emissions and increased fugitive dust levels, which would not likely result in a violation of ambient air quality standards. These temporary and minor effects would be distributed throughout the Plan Area and the 30-year permit term, spreading out impacts over time and space. As such, air quality is excluded from further analysis. |
| Geology | | X | | Each of the three alternatives would result in minor effects to geology during ground disturbance associated with enrolled projects and restoration activities. Impacts would primarily be limited to the physical footprint of aboveground facilities (e.g., wind turbines, solar arrays, poles, and substations associated with transmission projects, and communication towers). Further, with the exception of wind projects, impacts to bedrock would not be expected to occur during construction of many of the enrolled projects. Therefore, impacts to geology would be minor, localized, and spread throughout the Plan Area. As such, impacts to geological resources are excluded from further analysis. |
| Hazardous Materials/Waste | | X | | Limited quantities of hazardous materials would be associated with construction and maintenance activities for each of the three alternatives. Their use would be temporary and controlled by required management plans and project documents. As such, hazardous materials/waste are excluded from further analysis. |
| Land Use | | | X | Each of the three alternatives would result in both temporary and permanent impacts to land use (including potential impacts to areas classified as prime farmlands or farmland of statewide importance) within the Plan Area (see Section 4.2.1). |

RENEWABLE ENERGY, POWER LINE, AND COMMUNICATION TOWER
PROPOSED HCP AND ITP FOR LESSER PRAIRIE-CHICKEN

Table 4-1. Resources Considered and Rationale for Exclusion or Inclusion in Detailed Analysis.

| Resource | Not Present | Present, Excluded from Detailed Analysis | Present, Included in Detailed Analysis | Rationale |
|------------------------|-------------|--|--|--|
| Noise | | | X | Each of the three alternatives would result in both short-term and long-term impacts to noise levels within the Plan Area (see Section 4.2.2). |
| Soils | | X | | Impacts to soils from each of the three alternatives would primarily be associated with ground disturbance during construction, maintenance, repowering, decommissioning, and restoration, and with the conversion of soils classified as prime farmlands to non-agricultural use within solar farms and restoration lands. Potential compaction of soils and the resulting impacts to vegetation are discussed in our vegetation analysis (see Sections 4.1.1 and 5.1.1). The conversion of soils classified as prime farmlands to non-agricultural use is discussed in our land use analysis (see Sections 4.2.1 and 5.2.1). |
| | | | | Under the three alternatives being considered, impacts to soils would be minimized by implementing industry standard best management practices; project-specific Spill Prevention, Control, and Countermeasure Plans; and Stormwater Pollution Prevention Plans in accordance with permit requirements. As such, soil erosion, runoff, and contamination would be temporary and minor, and soils are excluded from further analysis. |
| Visual Resources | | | X | Each of the three alternatives would result in both short-term and long-term impacts to visual resources within the Plan Area (see Section 4.2.3). |
| | | | | The LEPC is an upland grassland species, and as such, the three alternatives would not result in measurable impacts to either groundwater or surface water resources. |
| Water Resources | | X | | Implementation of the Conservation Program under Alternatives 1 and 2 would result in preservation or restoration of LEPC habitat in lands that would not be impacted under the No-Action Alternative; the resulting impacts to water resources would primarily be limited to a decrease in sediment or nutrient inputs to surface waters from runoff associated with croplands that would be converted to LEPC habitat. These impacts would be minor, beneficial, and distributed throughout the Plan Area. As such, water resources are excluded from further analysis. |
| Other Resources | | | | |
| Cultural Resources | | | X | LEPC habitat within the Plan Area likely includes both known and unknown cultural resources. Implementation of each of the three alternatives could result in impacts to cultural resources (see Section 4.3). |

RENEWABLE ENERGY, POWER LINE, AND COMMUNICATION TOWER
PROPOSED HCP AND ITP FOR LESSER PRAIRIE-CHICKEN

Table 4-1. Resources Considered and Rationale for Exclusion or Inclusion in Detailed Analysis.

| Resource | Not Present | Present, Excluded from Detailed Analysis | Present, Included in Detailed Analysis | Rationale |
|---|-------------|--|--|---|
| Recreation | X | | | Publicly accessible recreational areas are generally managed by state or federal agencies, which would preclude them from being impacted by the Covered Activities under Alternatives 1 and 2 (see Section 1.5 of the HCP), and likely to be avoided during project development under Alternative 3 (No-Action). As such, impacts to recreation are not anticipated. |
| Socioeconomics | | X | | <p>Each of the three alternatives would likely have both short- and long-term beneficial socioeconomic impacts. During construction, socioeconomic impacts would primarily be associated with an increased number of local construction jobs and the purchase of goods and materials in the communities where construction activities occur. Because these impacts would be temporary, minor, spread throughout the Plan Area and the permit term, and they would be similar under each of the alternatives considered, they are excluded from further analysis.</p> <p>Long-term impacts to the economy would primarily be associated with state, county, and local tax payments associated with operation of the enrolled projects. However, operation of enrolled projects is not a Covered Activity. As such, long-term socioeconomic impacts are beyond the scope of this assessment and excluded from further analysis.</p> |
| Transportation | | X | | <p>Each of the three alternatives would have limited temporary effects on transportation during construction of enrolled projects and restoration activities, respectively. Impacts to transportation associated with construction would typically be limited to temporary increases in traffic levels on roads in the vicinity of construction activities and increased wear on roads due to construction vehicle traffic (primarily due to vehicle weight). Construction and restoration activities would be conducted in accordance with road permit requirements, which typically include conditions to both minimize impacts to local traffic and to repair damage to roadways. Because these impacts would be temporary, minor, spread throughout the Plan Area and the permit term, and they would be similar under each of the alternatives considered, they are excluded from further analysis.</p> <p>Long-term impacts to transportation could occur in association with operation of enrolled projects; however, the operation of enrolled projects is not a Covered Activity. As such, long-term impacts to transportation are beyond the scope of this assessment and excluded from further analysis.</p> |
| ¹ Implementation of Alternative 1 (Proposed Action) and Alternative 2 (Issue and ESP for a CCAA) would include the Covered Activities (described in Section 3.1.1) and mitigation (described in Section 3.1.3). Implementation of Alternative 3 (No-Action Alternative) would include the same types of activities associated with wind, solar, power line, and communication tower development described in Section 3.1.1, but because no permit would be issued, they are not referred to as Covered Activities. | | | | |

4.1 Biological Environment

4.1.1 Vegetation

This section describes vegetation types within the Plan Area that could be impacted by the Covered Activities and the Conservation Program, focusing on the vegetation communities that support LEPC occupancy (i.e., herbaceous and hay/pasture land cover types [approximately 32% and less than 1% of the Plan Area, respectively; Table 2 in the HCP]). Other prominent vegetation communities within the Plan Area include cultivated cropland (33%) and shrub/scrub (29%), with the remaining vegetation communities each accounting for less than 1% of the Plan Area. While cultivated croplands may be converted to LEPC habitat as mitigation, this is not considered a natural vegetation community, so our analysis regarding cultivated croplands is focused more on land use implications (see Section 4.2.1).

The Plan Area lies primarily within the South-Central Semi-Arid Prairies Level II Ecoregion, with a small portion extending into the Warm Deserts Level II Ecoregion in the southwest. Within the South-Central Semi-Arid Prairies Ecoregion, the Plan Area is subdivided into the High Plains, Southwestern Tablelands, and Central Great Plains Level III Ecoregions. The southwestern portion of the Plan Area that extends into the Warm Deserts Ecoregion is further classified as the Chihuahuan Desert Level III Ecoregion (U.S. Environmental Protection Agency [USEPA] 2017). Characteristics of each of the ecoregions within the Plan Area are described briefly below (USEPA 2013).

- **High Plains Ecoregion** is characterized by smooth to slightly irregular plains with a large percentage of the ecoregion planted in cropland. Portions of the Plan Area in eastern Colorado, western Kansas, the Oklahoma panhandle, eastern New Mexico, and western Texas are within this ecoregion.
- **Southwestern Tablelands Ecoregion** surrounds the High Plains ecoregion and are composed of several canyons, badlands, mesas, and dissected river banks that preclude the area from being used as cultivated croplands. Most of the Southwestern Tablelands are sub-humid grasslands and semiarid rangelands. Within the Plan Area, the Southwestern Tablelands fall adjacent to the High Plains in eastern Colorado, southwestern Kansas, the Oklahoma panhandle, eastern New Mexico, and northwest Texas.
- **Central Great Plains Ecoregion** occurs at lower elevations within the Plan Area, receive more precipitation, and are now mostly cropland for winter wheat. The remainder of the Plan Area in central Kansas, central Oklahoma, and small areas of land in northwest Texas are within this ecoregion.
- **Chihuahuan Desert Ecoregion** is characterized by vast expanses of desert grassland and arid shrubland due to desertification and over-grazing, with islands of oak, juniper, and pinyon pine woodland at higher elevations. Within the Plan Area, this ecoregion only occurs in southeast New Mexico and southwest Texas.

The Plan Area occurs primarily within three Major Land Resource Areas (MLRA), as defined by the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS).

For each MLRA, the NRCS has defined the dominant physical and biological characteristics, including plant species that the area can support. Given the large scale of the Plan Area, which includes portions of five states, MLRA data was used to describe the primary vegetation communities present that could be affected by implementation of the HCP.

The western portion of the Plan Area is within the Western Great Plains Range and Irrigation Region, which primarily overlaps the High Plains and Southwestern Tablelands ecoregions. This MLRA supports short or mid prairie grasses such as sand bluestem (*Andropogon hallii*), needle and thread (*Hesperostipa comata*), prairie junegrass (*Koeleria macrantha*), blue grama (*Bouteloua gracilis*), sideoats grama (*Bouteloua curtipendula*), galleta (*Pleuraphis* spp.), threeawn (*Aristida* spp.), ring muhly (*Muhlenbergia torreyi*), alkali sacaton (*Sporobolus airoides*), and western wheatgrass (*Pascopyrum smithii*). (NRCS 2006)

The central and eastern portions of the Project area are within the Central Great Plains Winter Wheat and Range Region, which primarily overlaps the Central Great Plains ecoregion, but also includes some area within the High Plains and Southwestern Tablelands. This MLRA supports mixed grass prairies such as buffalograss (*Bouteloua dactyloides*), blue grama, sideoats grama, hairy grama (*Bouteloua hirsuta*), sand bluestem, and little bluestem (*Schizachyrium scoparium*). Woody shrubs such as *Yucca* spp., catclaw (*Senegalia* spp.), sand sage (*Artemisia filifolia*), shin oak (*Quercus havardii*), and skunkbush (*Rhus trilobata*) are also present as a smaller proportion of the natural vegetation throughout the region. (NRCS 2006)

The portion of the Plan Area that extends into the Chihuahuan Desert ecoregion falls primarily within the Southwest Plateaus and Plains Range and Cotton Region MLRA. This MLRA supports a shrub and short-grass plant community, with juniper (*Juniperus* spp.), mesquite (*Prosopis* spp.), lotebush (*Ziziphus obtusifolia*), shin oak, sumac (*Rhus* spp.), Texas pricklypear (*Opuntia engelmannii*), tasajillo (*Cylindropuntia leptocaulis*), kidneywood (*Eysenhardtia* spp.), agarito (*Mahonia trifoliolata*), yucca, eggleaf silktassel (*Garrya ovata*), catclaw, Texas persimmon (*Diospyros texana*), sideoats grama, threeawn, Texas grama (*Bouteloua rigidiseta*), hairy grama, curly-mesquite (*Hilaria belangeri*), buffalograss, and hairy woolygrass (*Erioneuron pilosum*). (NRCS 2006)

4.1.2 Wildlife

4.1.2.1 General Wildlife

This section describes those wildlife species that are considered common within the Plan Area, and are not identified by federal or state agencies as at-risk species that require special management. As stated above (see Section 4.2.1), LEPC habitat, shrub-scrub, and cultivated croplands compose over 90% of the Plan Area, with other habitat types not occupying more than 1% of the Plan Area. Therefore, this discussion focuses on wildlife species that utilize these habitats.

The High Plains, Southwestern Tablelands, and Central Great Plains ecoregions support a variety of common wildlife species. Mammals that may occur include mule deer (*Odocoileus hemionus*), white-tailed deer (*Odocoileus virginianus*), pronghorn antelope (*Antilocapra americana*), coyote

(*Canis latrans*), jackrabbit (*Lepus townsendii, californicus*), cottontail (*Sylvilagus floridanus*), American badger (*Taxidea taxus*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and black-tailed prairie dog (*Cynomys ludovicianus*). Common bird species include wild turkey (*Meleagris gallopavo*), ring-necked pheasant (*Phasianus colchicus*), Canada goose (*Branta canadensis*), scaled quail (*Callipepla squamata*), bobwhite quail (*Colinus virginianus*), and mourning dove (*Zenaida macroura*). Common bird groups in the region include songbirds, corvids (jays and crows), waterfowl, waterbirds, and raptors. Additional species that are more common in the Chihuahuan Desert ecoregion are collared peccary (*Pecari tajacu*), gray fox (*Urocyon cinereoargenteus*), bobcat (*Lynx rufus*), opossum (*Didelphis virginiana*), and white-winged dove (*Zenaida asiatica*; NRCS 2006). A wide variety of snakes, lizards, frogs, and toads also commonly occur throughout the Plan Area (NatureServe 2020).

There are several protected lands within the Plan Area, including national wildlife refuges, national forests, state wildlife management areas, conservation easements, and public lands managed by the Bureau of Land Management (BLM). These areas are precluded from the Covered Activities under the HCP (see Section 1.5 of Attachment A).

4.1.2.2 Eagles

Bald eagles occur throughout the Plan Area year-round (eBird 2020). Golden eagles, while less common than bald eagles, also occur throughout the Plan Area year-round, but are more common in the western portion of the Plan Area (i.e., portions of the Plan Area in Colorado, New Mexico, and western Texas; National Eagle Center 2020; Service 2016a).

Both bald and golden eagles are more common in the Plan Area from early fall through late spring (eBird 2020). This period corresponds with the nonbreeding migration season and the increase of bald and golden eagles beginning in the fall is likely attributed to the influx of nonbreeding migratory individuals. Bald and golden eagles often migrate along major river systems, which are largely absent from the Plan Area. Suitable stopover habitat for bald eagles may exist within the Plan Area. For bald eagles, this would be primarily within herbaceous and wetland areas or cultivated croplands that attracts migrating waterfowl (Mersmann 1989, McClelland et al. 1996). For golden eagles, suitable stopover habitat would be primarily within herbaceous and shrubland areas, with avoidance of fragmented areas or cultivated croplands (Marzluff et al. 1997).

Although bald and golden eagles are not expected to use LEPC habitat frequently, both species may forage within LEPC habitat. Additionally, it is possible that both species could potentially nest in scattered trees within LEPC habitat; however, this would be more likely for bald eagles than golden eagles.

4.1.3 Listed, Proposed, and Candidate Species

Covered Activities and the Conservation Program described in Chapters 2 and 5 of the HCP, respectively would not occur in aquatic or forested habitats, and therefore direct or indirect effects to species dependent upon those habitats are not anticipated. A total of 59 federally listed, proposed, or candidate species may occur within the Plan Area (see Attachment B). Of these,

16 species occur within suitable LEPC habitat (defined in the HCP as land cover types classified as herbaceous or hay/pasture by the National Land Cover Database [Yang et al. 2018, Multi-Resolution Land Characteristics 2019), shrub-scrub habitat, or cultivated croplands (see Table 4-2). An additional 38 state-listed endangered and threatened species have the potential to occur in the Plan Area within these habitats (see Attachment B). These include five mammals, 14 birds, three amphibians, seven reptiles, one invertebrate, and eight plants (Attachment B).

Critical habitat has been designated for 15 species (one bird, four fish, eight aquatic invertebrates, and two flowering plants) within the Plan Area (see Attachment B). Of these, only designated critical habitat for the whooping crane includes LEPC habitat, shrub-scrub, or cultivated croplands, and each of the three critical habitat units within the Plan Area is located within lands managed by a state or federal agency (e.g., Waterfowl Management Areas, National Wildlife Refuges), which are precluded from the Covered Activities under the HCP.

As discussed in Section 3 of this EA and Section 1.7 of the HCP, the issuance of an ITP or ESP would only authorize incidental take of LEPC associated with otherwise lawful activities. Projects seeking to enroll in the HCP or CCAA and obtain coverage would be required to provide documentation of ESA compliance for species not covered under the programmatic permit as part of the application package, which would be reviewed by both the Applicant and the Service (see Section 8.4 of the HCP). Similarly, enrolled projects would be required to adhere to state regulations relating to state-listed endangered and threatened species (see Attachment B). Therefore, remainder of this section focuses on the affected environment as it relates to the LEPC.

The LEPC requires large parcels (1,200 – 25,000 acres) of undisturbed, high quality native grassland and shrubland to maintain self-sustaining populations (Bidwell 2002, Van Pelt et al. 2013, Sullins et al. 2019). Preferred habitats include short and mixed grass prairies with grass species such as sand bluestem, little bluestem, buffalograss, various dropseeds (*Sporobolus* spp.), and various gramas. Sand sagebrush or shin oak make up the dominant shrub types in ideal LEPC habitats to provide summer and winter protection and act as a supplemental food source (Service 2010). Within an individual's home range, sufficient lekking/breeding habitat, nesting habitat, brood habitat, and autumn/winter habitat must be available to support a sustainable LEPC population. Additional details regarding the specific habitat characteristics required to fulfill the LEPC life history needs can be found in Section 3.4 of Attachment A.

LEPC populations have drastically declined within the past 200 years and the species currently only occupies 16% of its historical range. Population declines are attributable to habitat loss, degradation, and fragmentation primarily due to native prairies being converted to cultivated croplands and, to a lesser extent, human population growth and energy development (Service 2014a, Evans and Li 2017). Studies have shown that LEPC will avoid tall structures on the landscape, such as wind turbines, communication towers, and transmission lines, and appear to be displaced by many forms of energy development (see Section 3.6.3 of the HCP [Attachment A]). Additional details regarding population trends and threats to the LEPC can be found in Sections 3.5 and 3.6 of Attachment A.

RENEWABLE ENERGY, POWER LINE, AND COMMUNICATION TOWER
PROPOSED HCP AND ITP FOR LESSER PRAIRIE-CHICKENTable 4-2. Federally listed Species with the Potential to Occur in suitable LEPC habitat within the Plan Area for the Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.¹

| Species Name | Federal Status | State Status | Habitat/Notes |
|--|----------------|---------------------|---|
| Mammals | | | |
| Black-footed ferret <i>Mustela nigripes</i> | FE | SE – CO, KS | Limited to open habitat such as semi-arid grasslands, steppe, and shrub steppe. Black-footed ferrets are limited by prairie dog occurrence, as they depend on prairie dogs for food and prairie dog burrows for shelter (Service 2013b). |
| New Mexico meadow jumping mouse <i>Zapus hudsonius luteus</i> | FE | SE – NM | Riparian communities and adjacent uplands in grassland and shrub-scrub habitats with tall, emergent herbaceous forbs and sedges (Service 2014c). |
| Penasco least chipmunk <i>Tamias minimus atristriatus</i> | FC | SE – NM | Subalpine Thurber's fescue meadow with deciduous shrubs or upper montane coniferous forest (Frey and McKibben 2018). |
| Preble's meadow jumping mouse <i>Zapus hudsonius preblei</i> | FT | ST – CO | Dense, herbaceous riparian habitat and adjacent upland grasslands (Service 2018). |
| Birds | | | |
| Northern Aplomado falcon <i>Falco femoralis septentrionalis</i> | FE, EXPN | SE – NM, TX | Open terrain with scattered trees or shrubs such as yucca-covered sand ridges in coastal prairies, riparian areas adjacent to grasslands, and in desert grasslands with scattered mesquite and yucca (Service 1990). |
| Southwestern willow flycatcher <i>Empidonax traillii exermis</i> | FE | SE – CO, NM, TX | Dense, forested riparian habitats are required for nesting; however, migration and foraging habitat includes old field, shrubland/chaparral, and mixed hardwood forest (NatureServe 2020). |
| Whooping Crane <i>Grus Americana</i> | FE, EXPN, DCH | SE – CO, KS, NM, TX | Coastal marshes and estuaries, inland marshes, lakes, ponds, riparian areas, wet meadows and rivers, and agricultural fields (NatureServe 2020). |
| Invertebrates | | | |
| American Burying Beetle ² <i>Nicrophorus americanus</i> | FT, EXPN | SE – KS | Occurs in a variety of habitats, such as grassland, shrubland, and hardwood forests. May occur in areas with mowed or grazed fields to dense shrub areas. Adults typically live aboveground, but may overwinter in soil and lay eggs in soil next to buried carcasses. (NatureServe 2020) |
| Monarch Butterfly ² <i>Danaus plexippus</i> | FC | NL | Adult monarch butterflies feed on nectar from a wide variety of flowers, but larvae only feed on milkweed (<i>Asclepias</i> spp.). Adults feed in fields, along roads, open areas, wet areas, and gardens on milkweeds and other flowering plants. Breeding only occurs where there are milkweed plants (U.S. Forest Service 2021) |
| Flowering Plants | | | |
| Bunched cory cactus <i>Coryphantha ramillosa</i> | FT | ST – TX | Chihuahuan Desert succulent scrub on rocky slopes, ledges, and gravelly limestone flats (NatureServe 2020). |
| Gypsum wild-buckwheat <i>Eriogonum gypsophilum</i> | FT | SE – NM | Semi-arid open grassland dominated by grama species and creosote bush (<i>Larrea tridentata</i>) communities (NatureServe 2020). |
| Kuenzler hedgehog cactus <i>Echinocereus fendleri</i> var. <i>kuenzleri</i> | FT | SE – NM | Grassland and herbaceous habitat on the fringes of pinyon-juniper savannah (NatureServe 2020). |
| Lloyd's mariposa cactus <i>Echinomastus mariposensis</i> | FT | ST – TX | Arid desert and shrubland/chaparral habitats with gravelly, limestone-derived soils on gentle slopes (NatureServe 2020). |

RENEWABLE ENERGY, POWER LINE, AND COMMUNICATION TOWER
PROPOSED HCP AND ITP FOR LESSER PRAIRIE-CHICKENTable 4-2. Federally listed Species with the Potential to Occur in suitable LEPC habitat within the Plan Area for the Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.¹

| Species Name | Federal Status | State Status | Habitat/Notes |
|---|----------------|--------------|--|
| Sneed pincushion cactus <i>Coryphantha sneedii</i> var. <i>sneedii</i> | FE | SE – NM, TX | Desert and desert grassland habitats with limestone ledges and slopes dominated by creosote bush, yucca species, and grama species (NatureServe 2020). |
| Texas poppy-mallow <i>Callirhoe scabriuscula</i> | FE | SE – TX | Grasslands, shin oak shrublands, and mesquite woodlands with deep, loose sandy soil from alluvial deposits of the Colorado River (NatureServe 2020). |
| Tobusch fishhook cactus <i>Sclerocactus brevihamatus</i> ssp. <i>Tobuschii</i> | FT | SE – TX | Riparian areas and adjacent shortgrass grasslands and semi-desert shrublands interspersed with oak-juniper woodlands (NatureServe 2020). |

FE = federally endangered, FT = federally threatened, FC = candidate for federal listing, DCH = designated critical habitat, SE = state endangered, ST = state threatened, EXPN = population is experimental, non-essential in survival of the overall species

¹ Federally listed species with the potential to occur within the Plan Area, but that are not expected to occur in similar habitat as the LEPC are considered unlikely to be affected by the issuance of an ITP or ESP; therefore, these species are not included in Table 4-2 and have been dismissed from detailed analysis. A list of each of the federally listed species with potential to occur within the Plan Area is included in Attachment B.

² Identified through our state-level threatened and endangered species analysis as potentially occurring within the Plan Area but not identified through the Information for Planning and Consultation Tool (IPaC; Service 2021a)

The LEPC occupies 27,259 square miles of grassland/shrubland communities in portions of Colorado, Kansas, New Mexico, Oklahoma, and Texas (Figure 4-1; Service 2013a, Van Pelt et al. 2013). The LEPC range is divided into four regions based on the dominant vegetation communities utilized by LEPC: Shinnery Oak Prairie, Sand Sagebrush Prairie, Mixed Grass Prairie, and Shortgrass/Conservation Reserve Program (CRP) Mosaic (Figure 4-1). Each of these regions is targeted for LEPC habitat restoration and conservation in the HCP (Attachment A).

A focused, large-scale survey effort for LEPC began in 2012 to estimate and track population size and assess population trends across the species range. Aerial surveys for leks throughout the region and the use of improved models has resulted in an increased estimated detection probability of larger clusters of LEPC. Annual population size was estimated from 2012 through 2018, and again in 2020 (see Table 1 in the HCP; Service 2021b based on Nasman et al. 2020); averaged over the most recent five years of surveys (2015-2020, surveys were not conducted in 2019; Service 2021b), the population was estimated at 27,384 individuals range-wide (see Section 3.5 of the HCP [Attachment A]). Population distribution was estimated for each of the four LEPC habitat regions shown on Figure 4-1: Shinnery Oak Prairie (11% of the LEPC population), Sand Sagebrush Prairie (4%), Mixed Grass Prairie (22%), and Shortgrass/CRP Mosaic (62%; Nasman et al. 2020, Service 2021b). The 2021 *Species Status Assessment for the Lesser Prairie Chicken (Tympanuchus pallidicinctus)* provides the most relevant and best available science regarding the LEPC (Service 2021b).



4.2 Physical Environment

4.2.1 Land Use

The dominant land cover types within the Plan Area are cultivated croplands (33% of the Plan Area), suitable LEPC habitat (herbaceous lands [32%] and hay/pasture [0.6%]), and shrub-scrub (29%); of the remaining 8% of the Plan Area, only developed, open space (e.g., roads) accounts for more than 1% of the Plan Area. Portions of the Plan Area are also designated as either prime farmland (38%) or farmland of statewide importance (13%; NRCS 2020). Prime farmlands are designated as such because of soils having the ideal combination of both physical and chemical characteristics for food, feed, forage, fiber, and oilseed crop production (NRCS 2020). Farmland of statewide importance is generally land that does not meet the requirements for prime farmland but produces an economically similar crop yield (NRCS 2020).

Within the Western Great Plains Range and Irrigated Region, approximately 88% of the land is privately owned and is primarily used for rangeland for cattle grazing and some sheep. Where irrigation is possible, crops such as alfalfa, sugar beets, grain sorghum, melons, seed crops, corn, small grains, onions, and other vegetables are the main crop types. About 99% of the land in the Central Great Plains Winter Wheat and Range Region is privately owned, with farms and ranches making up nearly all of the private land in this area. Winter wheat is the principal crop, but soybeans, corn, alfalfa, grain sorghum, cotton, and peanuts are also commonly grown. The grassland in the area is used mainly as rangeland for beef cattle. Similarly, the Southwest Plateaus and Plains Range and Cotton Region is primarily comprised of ranches for livestock grazing and wildlife habitat. (NRCS 2006)

4.2.2 Noise

The level of ambient noise represents the total amount of background noise in an area and can be used to estimate the impacts of a new noise source relative to existing conditions. Ambient noise levels in high density urban areas are typically much higher than noise levels in lower density residential or rural areas (California Department of Transportation 2013). The Plan Area is made up primarily of rural communities (U.S. Census Bureau 2018), and therefore most of the Plan Area likely has low levels of ambient noise. New noise sources may be more discernable in rural areas with low existing ambient noise levels than in urban areas with high ambient noise levels.

Areas that are considered sensitive to noise impacts are often referred to as “noise sensitive areas” (Federal Aviation Administration 2013, U.S. Department of Agriculture 2016, Federal Energy Regulatory Commission 2017). These include, but are not limited to, private residences, libraries, schools, hospitals, and other care facilities. Given the lower population density (U.S. Census Bureau 2020), rural settings are likely to have fewer noise sensitive areas that would potentially be affected by noise than urban settings.

4.2.3 Visual Resources

Visual resources or “aesthetics” refer to the human perception of natural beauty on the landscape and the scenic qualities of an area. Attempting to measure aesthetics is subjective and differs from person to person. Visual resources can be measured by their uniqueness and the emotion or feeling they can invoke.

While specific visual resources for the enrolled projects are not available at this time, the landscapes within the proposed Plan Area are generally not considered unique within the region and represent the typical landscapes associated with the High Plains, Southwestern Tablelands, Central Great Plains, and Chihuahuan Desert ecoregions. As stated above, there are several protected lands within the Plan Area that could be considered unique or scenic vistas (e.g., national wildlife refuges, national forests); however, these areas are precluded from the Covered Activities under the HCP (see Section 1.5 of Attachment A). The Plan Area represents relatively large, undeveloped, open areas with dispersed rural communities. Based on the large size of the Plan Area, enrolled projects would likely be located in areas considered a background view for most observers. The number of viewers is expected to be relatively low, as enrolled projects would likely be located within rural portions of the Plan Area.

4.3 Cultural Resources

Cultural resources include prehistoric or historic districts, sites, buildings, structures, objects, or properties of traditional religious and cultural importance that meet the requirements for the National Register of Historic Places (NRHP); sacred sites; and lands or sites of contemporary cultural importance.

While site-specific information for enrolled projects is unavailable at this time, it is likely that both identified and unidentified cultural resources are present within the Plan Area. As stated in the HCP, lands registered on the NRHP are precluded from the Covered Activities under the HCP (see Section 1.7 of Attachment A). As described in detail in Appendix B, Worksheet 8 of the HCP (see Attachment A), prospective CI-holders would work with a cultural resources professional who meets the Secretary of Interior's Professional Qualifications Standards (36 CFR Part 61), to assist the Service in fulfilling the requirements of Section 106 of the NHPA and its implementing regulations. Prospective CI-holders, with the assistance of their cultural resource professional, would coordinate with the appropriate Service Ecological Services Field Office, State Historic Preservation Office (SHPO), and Tribal Historic Preservation Office (THPO) to support consultation between the Service and the SHPO under Section 106 of the NHPA (see Appendix B, Worksheet 8 of the HCP).

5 ENVIRONMENTAL CONSEQUENCES

NEPA requires federal agencies to consider whether the effects of the proposed action are significant and the degree of the effects of the action, including connecting actions (40 CFR 1501.3(b) and 40 CFR 1501.9(e)(1)). NEPA requires that in considering effects to the potentially affected environment, agencies should consider the affected area (national, regional, or local) and its resources (40 CFR 1501.3(b)(1)). To determine the degree of the effects of the action, federal agencies "should consider the following, as appropriate to the specific action: (i) Both short- and long-term effects. (ii) Both beneficial and adverse effects. (iii) Effects on public health and safety. (iv) Effects that would violate Federal, State, Tribal, or local law protecting the environment" (40 CFR 1501.3(b)(2)). A description of the Plan Area setting is provided below, to put the Plan Area in context for analyzing the biological, physical, and cultural resources discussed in this section.

The Plan Area overlaps five U.S. states, all within the southern Great Plains, including portions of Colorado, Kansas, New Mexico, Oklahoma, and Texas (Figure 1-1). In Colorado, the Plan Area overlaps 11 of 64 counties in the southeastern portion of the state (17%). In Kansas, the Plan Area overlaps 44 of 105 counties (42%), encompassing most of the western half of the state. The Plan

Area overlaps 13 of 33 counties in eastern New Mexico (39%). Within Oklahoma, 30 of 77 counties overlap the Plan Area (39%), including the panhandle and other western areas. In Texas, the Plan Area overlaps 65 of 254 counties (26%) in the northwest portion of the state. The Plan Area encompasses the estimated occupied LEPC range plus a 10-mile buffer (Figure 1-1), and an additional 51,865,976 acres of land not currently within the occupied LEPC range or 10-mile buffer. In other words, the LEPC estimated occupied range plus a 10-mile buffer makes up 44% of the Plan Area, while 56% of the Plan Area falls outside of the LEPC range and buffer areas. The impacts associated with wind, solar, power line, and communication tower development would be localized in nature and distributed throughout the Plan Area and the 30-year permit term, dispersing the total impacts over time and space.

This section describes the environmental effects of each of the alternatives retained for detailed analysis. Each of the alternatives would include a similar level of wind, solar, power line, and communication tower development over a 30-year period within the Plan Area. The three alternatives differ with respect to whether a programmatic ITP, programmatic ESP, or neither programmatic permitting mechanism is granted, along with the associated level of commitment to minimizing and mitigating effects to the LEPC and its habitat. As described in Section 3.2, above, the Covered Activities and the Conservation Program described in the HCP would apply to both Alternatives 1 and 2. Therefore, the environmental consequences associated with Alternatives 1 and 2 are expected to be the same and are analyzed together, below.

5.1 Biological Environment

5.1.1 Vegetation

Similar to the focus of the Affected Environment (see Section 4, above), the analysis of effects to vegetation focuses on the vegetation communities that support LEPC occupancy (i.e., herbaceous and hay/pasture land cover types), because both the Covered Activities and much of the conservation/mitigation activities would occur within these communities. While cultivated croplands may be converted to LEPC habitat as mitigation, this is not considered a natural vegetation community that would support the life history requirements of the LEPC, so our impact analysis regarding cultivated croplands is focused more on land use implications (see Section 5.2.1). Vegetation can be impacted at the individual, population, or community level. Substantial impacts to vegetation can occur when any of the following result:

- acreages of natural vegetation communities are reduced below the levels required to maintain plant species population viability at a local or regional level;
- loss or degradation of soil stability due to a reduction in native plant communities, which typically provide more robust root systems leading to increased soil regeneration capabilities (e.g., nutrients, fungi);
- increased soil compaction can reduce suitability of the habitat for some plant species;
- loss or degradation of habitat for a rare, threatened, or endangered animal species; or
- introduction of invasive species that results in replacement of native species.

5.1.1.1 Alternatives 1 and 2

Implementation of the HCP under Alternative 1 or CCAA under Alternative 2, including both the Covered Activities and the Conservation Program, would have an impact on vegetation within the Plan Area during pre-construction investigations; construction; post-construction restoration; repairs associated with wind, solar, power line, and communication tower development; and during grassland improvement and management. Three vegetation communities account for more than 90% of the Plan Area, including LEPC habitat (slightly less than 33% of the land cover, including both herbaceous and hay/pasture), cultivated croplands (33%), and shrub/scrub (29%; see Section 4.2.1 of this EA and Table 2 of the HCP). The remaining vegetation communities each account for less than 1% of the Plan Area.

Under Alternatives 1 and 2, the Applicant would receive authorization to impact up to 500,000 acres of suitable LEPC habitat, which would be distributed throughout the 92,224,490-acre Plan Area over the 30-year permit term. Within the Plan Area, this would equate to 1.7% of the 30,178,085 acres of potentially suitable LEPC habitat, and approximately 29% of the 1,707,916 acres of suitable LEPC habitat expected to be impacted by overall wind, solar, power line, and communication tower development during the permit term (see Table 4 in the HCP). Implementation of the Conservation Program would also affect approximately 1,000,000 acres of vegetation, either through preservation or restoration of LEPC habitat. Of this, at least 50,000 acres of existing LEPC habitat would be preserved and placed into LEPC strongholds or connectivity corridors, with the remaining acreage being a combination of preserving existing LEPC habitat and restoring suitable LEPC habitat through the conversion of cultivated croplands, removal of invasive woody species, removal of infrastructure, or other land management activities approved by the Service.

Impacts to vegetation communities anticipated from implementation of the HCP or CCAA would be both adverse and beneficial. Adverse impacts to vegetation would include both disturbance and removal, and degradation of vegetation communities could occur if plant growth is reduced as a result of soil compaction or if invasive plant communities establish and outcompete native communities. Beneficial impacts to vegetation would be primarily associated with implementation of the Conservation Program, which would result in the preservation of vegetation communities that are suitable for LEPC, restoration of degraded grasslands, conversion of cultivated croplands to LEPC habitat, and removal of woody invasive species.

Construction activities (Covered Activities under both Alternatives 1 and 2) would temporarily disturb or permanently convert vegetation communities in discrete areas associated with proposed facilities, including buildings, turbine sites, solar arrays, fencing, access roads, laydown yards, and other work areas. The acreage of vegetation disturbed would vary for each project enrolled under the HCP or CCAA; however, the vegetation impacted is expected to be substantially less than the 500,000 acres of LEPC habitat impacts authorized under the ITP/ESP because a large percentage of those acres would be associated with LEPC impact buffers (see Table 3 in Section 4.3 of the HCP), where vegetation clearing is not proposed.

Covered Activities would be conducted in accordance with federal, state, and local regulations and appropriate best management practices (BMPs) would be followed to avoid and/or minimize adverse impacts to vegetation communities. Appropriate BMPs could include, but are not limited to, minimizing the clearing of vegetation in temporary work areas and restricting construction vehicles to approved access roads and work spaces. Post-construction restoration, a Covered Activity under both Alternative 1 and Alternative 2, would reduce the impacts of vegetation disturbance and

removal through the revegetation of temporarily impacted areas. Through the application process, each enrolled project would describe project actions, estimated acreages of both biological and physical features within the project area, and the specific BMPs that would be implemented to avoid and minimize impacts. This would include quantifying the acres of vegetation that would be cleared or disturbed, and the proposed post-construction restoration plan. Each enrolled project would be monitored for ITP or ESP compliance through annual compliance monitoring reports submitted to the HCP or CCAA Administrator.

Soil compaction has the potential to impact existing vegetation and revegetation efforts. Impacts associated with soil compaction would be minimized in accordance with construction stormwater permit requirements (required under Section 402 of the Clean Water Act [CWA]), and with the successful implementation of BMPs, such as limiting construction vehicles to approved access roads and decompacting soils during restoration.

Invasive species may occur within the vegetation communities impacted by Covered Activities; however, the proportion of communities containing invasive species would vary for each enrolled project. Invasive species control measures would be implemented in accordance with state and local regulations. Further, implementation of the Conservation Program would result in the removal of woody invasive species on mitigation lands where LEPC habitat is restored (discussed in Section 3.1.3 of this EA and in Section 5.3.3 of the HCP).

Implementation of the Conservation Program would result in temporary impacts to vegetation during efforts to improve or maintain LEPC habitat on mitigation parcels (e.g., controlled burning, erosion control, mechanical brush control, herbicide treatment, grazing management, range planting, forage harvest management, fence installation); however, both preservation and restoration of LEPC habitat are expected to result in beneficial impacts to vegetation communities. Impacts to higher quality vegetation communities considered suitable for LEPC (i.e., SGP CHAT categories 1 and 2) would be avoided through project siting to the extent feasible, and offsite restoration of degraded grasslands or conversion of cropland to restored grasslands would occur to mitigate the impacts to LEPC habitat. Under Alternatives 1 and 2, an estimated 1,000,000 acres of LEPC habitat would be preserved or restored to fully offset the impacts of the take,² as habitat would be mitigated at ratios ranging between 1.25:1 and 2.5:1 (see SGP CHAT categories and mitigation ratios in Section 5.3.3.1 of the HCP). Monitoring for effectiveness and compliance, required as part of ITP/ESP reporting under both Alternative 1 and Alternative 2 (see Section 3.1.4.2 of this EA), would ensure the Conservation Program is successful in offsetting adverse impacts.

Although some permanent conversion of vegetation would occur associated with buildings, turbine sites, solar arrays, fencing, and permanent access roads, which would vary in size by project, the majority of vegetation impacts would be temporary. Short-term impacts to vegetation would be minimized and vegetation would be restored in temporary workspaces for each enrolled project, resulting in minimal overall changes in the local plant community composition or health. Further, both temporary impacts and permanent conversion of vegetation would be more than fully offset through the preservation or restoration of approximately 1,000,000 acres of LEPC habitat, which would include a reduction in woody invasive species, resulting in overall beneficial impacts to

² The Applicant and Service assume that impacts to LEPC habitat would be equally distributed among SGP CHAT categories 1–4 and the associated mitigation ratios (see Section 5.3.3.1 and Table 6 in the HCP and Section 3.1.3 of this EA) throughout the Plan Area and over the 30-year permit term.

herbaceous and hay/pasture vegetation communities in the Plan Area. The degree of both short- and long-term vegetation impacts would be localized for each enrolled Project, and low in overall severity due to being fully offset by the habitat preservation and restoration measures described above. The long-term composition and function of vegetation communities would be expected to remain intact and effective.

5.1.1.2 Alternative 3 (No-Action)

Under the No-Action Alternative, a similar level of wind, solar, power line, and communication tower development as what is expected under Alternative 1 and Alternative 2 would likely occur over a 30-year period within the Plan Area. As such, impacts to vegetation due to the Covered Activities would be similar to what is described above in Section 5.1.1.1 (with the exception of grassland improvement and maintenance associated with mitigation, which would not occur under the No-Action Alternative). It is expected that projects would implement BMPs during construction in order to avoid and/or minimize adverse impacts to vegetation communities where required by federal, state, or local regulations. Projects would likely take reasonable steps to minimize impacts to higher quality upland vegetation communities (e.g., forest, native grasslands) to the extent feasible during project planning; however, avoidance of these communities would be voluntary. Further, offsite restoration of degraded grasslands, conversion of cropland to restored grasslands, and removal of woody invasive species to offset impacts; monitoring; adaptive management; and reporting would not be required, which would result in less certainty over long-term effects to vegetation communities under the No-Action Alternative when compared to Alternative 1 and Alternative 2.

If the proposed rule to list the LEPC is adopted and the LEPC is afforded legal protection under the ESA in 2022, it is possible that individual HCPs would be developed for some wind, solar, power line, and communication tower projects under the No-Action Alternative. It is likely that higher quality grassland habitats considered suitable for LEPC would be avoided and offsite mitigation would occur based on individual project requirements and coordination with appropriate agencies if the LEPC is listed. However, because projects would be authorized under individual HCPs rather than a programmatic HCP, it is expected that the mitigation ratio, monitoring requirements, and adaptive management strategy would be determined on a project-specific basis, making it more difficult to track overall impacts to vegetation communities. In addition, because some projects may not develop HCPs, there would be greater uncertainty in the amount and effectiveness of avoidance and mitigation across the Plan Area.

5.1.2 Wildlife

Impacts to wildlife may occur when any of the following result:

- disturbance, injury, or mortality of individuals;
- habitat loss, degradation, or alteration;
- a change or reduction in resources used by wildlife in different life stages (e.g., alterations to habitat composition); or
- the creation of habitat edges and openings that favor a different mix of species, and may increase predation pressure and/or cause displacement or avoidance.

Substantial impacts to wildlife are those that affect a species' population (locally, regionally, or range-wide) or reduce its habitat quality or quantity to the point where population viability would be affected.

5.1.2.1 Alternatives 1 and 2

General Wildlife

Similar to the Affected Environment section above, the analysis of environmental impacts to wildlife focuses on those species that are considered common within the Plan Area, occur in similar habitats as the LEPC, and are not identified by federal or state agencies as at-risk species that require special management. Implementation of the Covered Activities described in the HCP under Alternative 1 or CCAA under Alternative 2 would impact wildlife habitat within the Plan Area during pre-construction investigations; construction; post-construction restoration; repairs associated with wind, solar, power line, and communication tower development; and grassland improvement and maintenance. As described in Section 4.2.1, LEPC habitat, cultivated croplands, and shrub/scrub habitat make up over 90% of the Plan Area, with other habitat types each accounting for less than 1% of the Plan Area.

As described in Section 5.1.1.1, under Alternatives 1 and 2, the Applicant would receive authorization to conduct Covered Activities that would affect up to 500,000 acres of suitable LEPC habitat. Implementation of the Conservation Program that would preserve or restore approximately 1,000,000 acres of LEPC habitat.

Implementation of the Covered Activities under either Alternative 1 or Alternative 2 has the potential to impact general wildlife species by removing, fragmenting, or degrading habitat; increasing disturbance associated with human activity; increasing risk of entrapment, physical injury, or mortality from vehicles or machinery. These impacts are discussed further below, with the understanding that the Covered Activities would be conducted for enrolled projects and as part of the Conservation Program in accordance with federal, state, and local regulations.

Implementation of the Covered Activities under both Alternative 1 and Alternative 2 would result in removal, degradation, and fragmentation of habitats that support general wildlife species. The acreage of wildlife habitat disturbed would vary for each project enrolled under the HCP or CCAA, which would be quantified and described in the CI application; however, as described in Section 5.1.1.1, the acreage is expected to be substantially less than the 500,000 acres of LEPC habitat impacts authorized under the ITP/ESP because a large percentage of those acres would be associated with LEPC impact buffers (see Table 3 in Section 4.3 of the HCP), where vegetation clearing and ground disturbance is not proposed. Furthermore, the impact buffers for LEPC do not apply to all general wildlife species, as these more common species are not expected to avoid anthropogenic structures on the landscape to the same level as LEPC. Implementation of the Covered Activities associated with the Conservation Program would affect approximately 1,000,000 acres of habitat within mitigation parcels, either through preservation or restoration and maintenance of suitable LEPC habitat. Activities within mitigation parcels would include the conversion of cultivated croplands, removal of invasive woody species, removal of infrastructure, or other land management activities approved by the Service.

Impacts to general wildlife habitat associated with the Covered Activities could displace individuals and have the potential to impact individual health and survivorship. The habitats that would be affected by the Covered Activities occur throughout the Plan Area and generally are already fragmented by existing features on the landscape (e.g., houses, roads, fences, power lines). Additionally, the HCP is designed to encourage CI-holders to avoid and/or greatly minimize impacts

to larger intact LEPC habitats (i.e., SGP CHAT categories 1 and 2) because offsetting mitigation requirements would be substantially higher in those areas (see SGP CHAT categories and mitigation ratios in Section 5.3.3.1 of the HCP). Each enrolled project would be monitored for ITP compliance through annual compliance monitoring reports submitted to the HCP administrator. These efforts would help to minimize and offset habitat impacts for general wildlife species, and would ensure long-term success of habitat restoration associated with the Conservation Program.

Implementation of the Covered Activities would involve localized, short-term increases in human activity during construction at enrolled project sites and during grassland improvement and maintenance activities on mitigation parcels. Increased human activity, including human presence, noise, artificial light, and potential for wildfire, can cause disturbance to normal wildlife activities and behaviors. For example, such disturbances, particularly for nesting birds, may cause adult bird species to alter their nest/egg tending activities, which can lead to increased nest predation and reduced nest success (Stein and Ims 2016, Rodrigues et al. 2019). Displacement and disturbance impacts associated with increases in human activity during site preparation, construction, and repairs are characterized as short-term and of low intensity.

Through implementation of the Covered Activities, wildlife could be injured or killed from collisions with vehicles and machinery and possibly entrapped during soil disturbing activities. Ground-dwelling wildlife such as reptiles, amphibians, and small mammals are particularly susceptible to mortality from vehicle collision and entrapment in trenches and post-holes created during construction and grassland improvement activities. Injury and mortality impacts are characterized as short-term and limited to the duration of construction activities and intermittent repairs throughout the life of the projects, and to the duration of grassland improvement and management activities. Injury and mortality impacts are unlikely to be substantial enough to detrimentally impact general wildlife populations.

Based on the relatively localized nature of the Covered Activities associated with each enrolled project, and the implementation of both post-construction restoration and offsite habitat mitigation, adverse impacts to wildlife are expected to be minor. Short-term impacts to wildlife populations may include injury or mortality of individuals, disturbance, and displacement resulting from construction activities, but project-specific BMPs would likely minimize the intensity of these short-term impacts. As stated above, higher quality grassland habitat considered suitable for LEPC (i.e., SGP CHAT categories 1 and 2) would be avoided through project siting, to the extent feasible, and fully mitigated through preservation, restoration of degraded grasslands, or conversion of cultivated croplands to restored grasslands as part of the Conservation Program proposed in the HCP. Long-term impacts to wildlife may include avoidance of suitable habitat in the vicinity of aboveground facilities; however, common wildlife species are not expected to avoid anthropogenic structures on the landscape to the same level as LEPC. Additionally, impacts would be distributed throughout the Plan Area over the 30-year permit term, spreading out impacts to wildlife over time and space. Though some habitats would be permanently lost or fragmented due to wind, solar, power line, and communication tower development, after completion of the proposed construction activities, normal wildlife activities and behaviors would be expected to resume. Therefore, the degree of intensity of both short- and long-term impacts to general wildlife would be characterized as low.

Eagles

In addition to the impacts to general wildlife described above, implementation of the proposed Covered Activities has the potential to impact bald and golden eagles. Increased human activity and noise levels associated with construction activities could disturb nearby nesting eagles. However, projects enrolled under the HCP must be in compliance with all federal, state, and local regulations. Specifically, as part of the application process, project proponents must provide a brief description of the planned approach to comply with the Bald and Golden Eagle Protection Act of 1940 (BGEPA; 16 USC 668-668d). As part of the BGEPA compliance approach, CI-holders would likely work in good faith with the Service to pursue a nest disturbance permit or eagle take permit for enrolled projects, if warranted. The permit process would identify what the potential impacts to eagles would be and, depending on species and size of the local area population, would determine if mitigation is necessary to offset the short-term disturbance and/or long-term production effects of removing/disturbing the nest. Therefore, the degree of intensity of both short- and long-term effects to eagles from implementation of the HCP or CCAA under Alternative 1 or Alternative 2 would be low.

5.1.2.2 Alternative 3 (No-Action)

General Wildlife

Under the No-Action Alternative, a similar level of wind, solar, power line, and communication tower development as what is expected under Alternative 1 and Alternative 2 would likely occur over a 30-year period within the Plan Area. As such, impacts to wildlife due to the Covered Activities would be similar as what is described above in Section 5.1.2.1 (with the exception of grassland improvement and maintenance, which would not occur under the No-Action Alternative). It is expected that projects would implement BMPs during construction in order to avoid and/or minimize adverse impacts to wildlife where required by federal, state, or local regulations. Projects would likely take reasonable steps to minimize impacts to higher quality habitat (e.g., forest, native grasslands) to the extent feasible during project planning; however, avoidance of these habitats would be voluntary. As described in additional detail in Section 5.1.1.2, projects would not be required to offset impacts, and the absence of monitoring, adaptive management, and reporting under the No-Action Alternative would result in less certainty over long-term effects to wildlife compared to Alternative 1 and Alternative 2.

If the proposed rule to list the LEPC is adopted and the LEPC is afforded legal protection under the ESA in 2022, it is possible that individual HCPs would be developed for some wind, solar, power line, and communication tower projects under the No-Action Alternative. However, similar to the discussion in Section 5.1.1.2, mitigation, monitoring and adaptive management would be determined on a project-specific basis, making it more difficult to track overall impacts. In addition, because some projects may not develop HCPs, there would be greater uncertainty in the amount and effectiveness of avoidance and mitigation across the Plan Area.

Eagles

Short- and long-term effects to eagles under the No-Action Alternative are expected to be similar to what is described above for Alternative 1 and Alternative 2. Project proponents may work in good faith with the Service to pursue and obtain a nest disturbance permit if construction activities associated with an individual project would be likely to disturb or displace eagles or an eagle take

permit, regardless of whether an ITP or ESP for LEPC is granted. However, unlike Alternatives 1 and 2, there would be no requirement to develop a plan for BGEPA compliance, which would likely result in fewer projects voluntarily pursuing eagle permits. Therefore, both short- and long-term effects to eagles are expected to be minor, albeit more uncertain under the No-Action Alternative.

5.1.3 Listed, Proposed, and Candidate Species

In accordance with Section 7 of the ESA of 1973 (16 USC 1531–1599), actions that have a federal nexus such as involvement of federal land, federal funding, or a federal action (e.g., the decision on whether to issue an ITP) necessitate conference with the Service if the federal action is likely to jeopardize the proposed species or adversely modify proposed critical habitat, and is designed to help federal agencies identify and resolve potential conflicts between an action and species conservation early in the planning process. Because the Service is the lead agency in the review of the permit application for the Project, an Intra-Service Section 7 conference was being completed; the Service's Intra-Service Section 7 conference opinion documents how issuance of the permit (and associated implementation of the HCP or CCAA and permit conditions) and/or denial of the permit would affect the LEPC and/or federally listed species.

As described above, projects seeking to enroll in the HCP or CCAA would be required to provide documentation of ESA compliance for species not covered under the programmatic permit. Similarly, enrolled projects would be required to adhere to state regulations relating to state-listed endangered and threatened species (see Attachment B). Therefore, only impacts to the LEPC are discussed further in this section.

Impacts to LEPC may occur when any of the following result:

- disturbance, injury, or mortality of LEPC individuals;
- loss, degradation, or alteration of LEPC habitats or resources used to fulfill different life history needs (i.e., leks, nesting habitat, brood habitat, autumn/winter habitat) resulting in reduced survivorship or reproductive success; or
- the creation of features on the landscape that may cause LEPC displacement or avoidance.

Similar to general wildlife, substantial impacts to LEPC are those that substantially affect the population (locally, regionally, or range-wide) or reduce LEPC habitat quality or quantity.

5.1.3.1 Alternatives 1 and 2

Implementation of the Covered Activities under Alternative 1 or Alternative 2 has the potential to impact the LEPC throughout the species' annual cycle (i.e., wintering, lekking/breeding season, nesting, and early and late brood rearing). While direct impacts such as disturbance, injury, or mortality of LEPC are possible due to implementation of the Covered Activities, the primary reason for LEPC population declines is the loss of suitable habitat and the subsequent displacement of individuals (Service 2014a). Consequently, habitat loss and displacement are the primary impacts that would result from wind, solar, power line, and communication tower development under both Alternative 1 and Alternative 2 and the implementation of the HCP or CCAA. As such, acres of suitable LEPC habitat are used as a surrogate for measuring impacts and direct take of LEPC individuals.

Impact Assessment and Take Prediction

As described in Section 4.1.1, potentially suitable LEPC habitat within the Plan Area was quantified using land cover classes, including herbaceous and hay/pasture, which account for approximately 32% and less than 1%, respectively, of the land cover types within the Plan Area (a total of 30,178,084 acres). For this analysis, and as described in additional detail in Section 4.1 of the HCP, LEPC take that could result from wind, solar, power line, and communication tower projects and from grassland improvement and maintenance activities covered under the HCP were estimated using acres of potentially suitable LEPC habitat as a surrogate for direct take of LEPC individuals.

Estimated LEPC take includes both acres where ground disturbance and construction activities associated with project development would occur; adjacent spaces where LEPC occurrence is altered in response to wind, solar, power line, and communication tower project components is expected; and where grassland improvement and maintenance activities would occur (see Section 4.3 and Table 4 in the HCP). This estimate identified a total of 1,707,916 acres of potentially impacted land within the Plan Area that may be suitable for LEPC (see Table 4 in the HCP); of this, the Applicant is requesting authorization for take of up to 500,000 acres of suitable LEPC habitat.³

Projects enrolled in the HCP would quantify actual impacts to LEPC habitat using a six-step process, which is described in detail in Section 4.4 of the HCP. This process includes both desktop and field-based review, and would culminate in an LEPC take calculation for each project. CI applicants would prepare and submit the assessment to the HCP Administrator, and ultimately the Service, for review as part of the CI application process.

Conservation Program

Under the Conservation Program (summarized in Section 3.1 of this EA and described in detail in Section 5 of the HCP), enrolled projects would implement measures to avoid and minimize impacts to LEPC habitat. For select projects, it is possible that impacts could be fully avoided by strategic siting so that both the project facilities and the associated buffers occur within areas that are not considered suitable LEPC habitat.⁴ It is expected that most enrolled projects would not be able to fully avoid LEPC habitat; in these instances, impacts to LEPC would be minimized by siting projects and associated impact boundaries in lower-quality habitat (determined during the six-step habitat impact assessment described above), areas with existing impacts or features (e.g., buildings, roads, or other structures) on the landscape, and burying linear facilities. The proposed mitigation ratios (discussed further in Section 5.1.1.1 and in Section 5.3.3 of the HCP) are designed to incentivize the minimization of impacts to suitable habitat. Projects impacting smaller amounts of LEPC habitat

³ Note that the Applicant is requesting authorization to take up to 500,000 acres of suitable LEPC habitat, which is approximately 29% of the 1,707,916 acres expected to be impacted by overall wind, solar, power line, and communication tower development, as well as grassland improvement and maintenance activities during the permit term. Cumulative effects associated with development not included in the Applicant's request are discussed in Section 5.4.3, below.

⁴ Typically, a project that entirely avoids impacts to LEPC habitat would not be expected to enroll in the HCP because the project would not require take coverage. However, in certain instances, a project may choose to enroll in the HCP in order to provide regulatory certainty that coverage for take would not be required at a later date if adjacent lands (that are within the buffers LEPC are expected to avoid) are modified such that they become suitable LEPC habitat at a later date.

and/or lower habitat quality would require fewer mitigation credits to offset those impacts, and thus pose less of a financial burden to the developer.

Enrolled projects would also implement measures to reduce impacts to LEPC during the breeding season (March 1 – July 15). During the breeding season, noise and blasting, traffic volume and speed, and access points would be minimized to reduce LEPC disturbance. In addition, enrolled projects would avoid off-road travel, where feasible,⁵ within three miles of leks that have been recorded as active within the previous five years, as described in Section 3.1.2 of this EA and Section 5.3 of the HCP.

Impacts to suitable LEPC habitat that remain after avoidance and minimization measures have been implemented would be offset for each enrolled project through habitat mitigation. As described in Section 5.3.3 of the HCP, mitigation fees would cover the conservation and management of mitigation lands in perpetuity, fully offsetting the impacts of enrolled projects on LEPC habitat.

Grassland improvement and management activities that occur in potential LEPC habitat on mitigation parcels could also result in take of LEPC. As described in Section 3.1.3, mitigation would be secured through a Service-approved mitigation bank, in-lieu fee program, or permittee-responsible mitigation project. Take of LEPC associated with grassland improvement and management activities on mitigation secured through a Service-approved bank or in-lieu fee program would be authorized under the existing banking or in-lieu fee program agreement between the mitigation provider and the Service. The Applicant anticipates approximately 50,000 acres of take would be associated with permittee-responsible mitigation projects (i.e., from a source other than a Service-approved mitigation bank or in-lieu fee program), which would be subject to Service approval. Take associated with permittee-approved mitigation projects would be covered under the HCP, and subject to approval by the Service (see Section 9.2 of the HCP).

Once initial improvement activities have occurred, maintenance activities within mitigation parcels would have minimal impacts to LEPC. Take of LEPC resulting from the temporary loss of habitat or impacts to individual LEPC occupying mitigation parcels during maintenance activities are relatively minor on a landscape level and would be more than offset by the net benefit to the species provided by these activities. As such, additional mitigation to offset take of LEPC that could occur on mitigation parcels during management activities would not be required.

Through the payment of mitigation fees, effectiveness and compliance monitoring, and the adaptive management approach described in Sections 3.1.3–3.1.5, above, implementation of the HCP or CCAA under Alternative 1 and Alternative 2, respectively, would ensure that the take of LEPC habitat is fully mitigated throughout the permit term.

Summary of Impacts to LEPC

Implementation of the Covered Activities would result in both temporary and permanent impacts to LEPC within the proposed Plan Area. The Covered Activities associated with each of the enrolled projects would result in relatively localized impacts that would be minimized by post-construction restoration. The overall loss of 500,000 acres of LEPC habitat would be of moderate intensity, but

⁵ Although enrolled projects would commit to avoiding off-road travel during the breeding season, where feasible (Section 5.3.2.2 of the HCP), whether each project is able to completely avoid off-road travel during the breeding would not necessarily be provided in the application package.

would be fully offset by implementation of the Conservation Program. Short-term impacts to LEPC may include injury or mortality of individuals, disturbance, and displacement resulting from construction activities and grassland improvement and maintenance activities, but the avoidance and minimization measures described above and in Section 3.1.2 would minimize the intensity of these short-term impacts. Though some suitable LEPC habitat would be permanently lost or fragmented due to wind, solar, power line, and communication tower development, the habitat mitigation that would occur under the proposed HCP or CCAA would fully offset these impacts. Therefore, the degree of intensity of both short- and long-term effects to LEPC is characterized as low.

5.1.3.2 Alternative 3 (No-Action)

Under the No-Action Alternative, the Service assumes a similar level of wind, solar, power line, and communication tower development as what is expected under Alternative 1 and Alternative 2 would likely occur over a 30-year period within the Plan Area. While the LEPC remains proposed for listing, individual projects would incorporate varying voluntary amounts of LEPC risk assessment, avoidance, and minimization measures in the design, construction, and operation of their project. Mitigation for impacts to LEPC habitat would not be required under the No-Action Alternative, nor would there be requirements for effectiveness and compliance monitoring to ensure minimization of impacts to LEPC that exist under Alternatives 1 and 2. Further, there would be no impact cap of 500,000 acres of LEPC habitat. Given the absence of mitigation requirements or an impact cap, it is anticipated that impacts to LEPC habitat due to wind, solar, power line, and communication tower development under the No-Action Alternative would likely meet or potentially exceed the predicted levels of 1,657,916 acres⁶ of suitable LEPC habitat over 30 years. This would equate to slightly over 5% of the 30,178,085 acres of land cover that is potentially suitable for LEPC within the Plan Area.

If the proposed rule to list the LEPC is adopted and the LEPC is afforded legal protection under the ESA in 2022, it is possible that individual HCPs would be developed for some wind, solar, power line, and communication tower projects under the No-Action Alternative. However, similar to the discussion in Section 5.1.1.2, mitigation, monitoring and adaptive management would be determined on a project-specific basis, making it more difficult to track overall impacts. In addition, because some projects may not develop HCPs, both short- and long-term adverse effects to LEPC are expected to be higher under the No-Action Alternative than under Alternative 1 or Alternative 2.

5.2 Physical Environment

5.2.1 Land Use

Land use drives the regional economy and utilization of resources, and as such determines the regional environmental quality, ecosystem services provided (e.g., regeneration of soil nutrients, provision of pollinator habitat), and socioeconomic systems. Land use can be impacted at the local or regional level and substantial impacts to land use can occur when any of the following result:

- rapid, unsustainable development or urbanization;
- substantial increase or decrease in the regeneration of soil nutrients;

⁶ The 1,657,916 acres of potentially impacted LEPC habitat from wind, solar, power line, and communication tower development is derived from Table 4 of the HCP, but does not include the 50,000 acres of permittee-responsible mitigation that would not occur under the No-Action Alternative.

- substantial increase in available pollinator habitat to support the pollination of both crops and natural vegetation; or
- substantial change in socioeconomic stability (e.g., jobs, food production, housing).

5.2.1.1 Alternatives 1 and 2

The implementation of the Covered Activities and associated wind, solar, power line, and communication tower development, as well as grassland improvement and maintenance activities would have an impact on land use within the Plan Area. As discussed in Section 4.2.1, above, the dominant land cover types in the Plan Area are cultivated croplands (33%), herbaceous (32%), and shrub/scrub (29%), with over 90% of the land being privately owned and used for rangeland or agriculture (NRCS 2006). Anticipated land use impacts resulting from the Covered Activities would likely occur primarily within these dominant land use types. With the exception of developed, open space (e.g., roads), which occupies 2.4% of the Plan Area, other land use types each occupy less than 1% of the Plan Area.

Wind, power line, and communication tower development allow for dual land use, as after the construction phase the surrounding areas can return to previous land use activities. Solar development is more limited in the potential land uses that could occur beneath the panels, and implementation of the Conservation Program would result in the conversion of cultivated croplands and shrub/scrub land use to herbaceous lands. Solar development and implementation of the Conservation Program are the Covered Activities most likely to result in more substantial land use change during the operational life of enrolled projects.

Solar projects can cover large expanses of land, averaging between 5 and 10 acres of land per megawatt (MW) of generating capacity (Solar Energy Industries Association [SEIA] 2020). The Conservation Program proposed by the Applicant would provide incentives for minimizing impacts to LEPC habitat (see Section 5.3 of the HCP); therefore, we anticipate that land use effects would be primarily within cultivated croplands and shrub/scrub cover types. As described in Table 4 of the HCP, approximately 3,651 MW of solar development is anticipated in the Plan Area during the 30-year permit term, which would require between 18,255 – 36,510 acres of land, equating to a change in land use less than 0.1% of either cultivated croplands or shrub/scrub lands in the Plan Area.⁷

During the operational life of enrolled solar projects, the land would be taken out of crop and rangeland production; however, the soils, and in some cases the vegetation, under the panels would be mostly undisturbed and would likely return to previous land uses after the project is decommissioned. Therefore, permanent impacts would not be anticipated. While the development of solar projects would change the existing land use for the operational life of the projects, these land use impacts would be spread over the 30-year permit term, and located throughout the Plan Area. Further, private landowners would be compensated for participating in solar development; therefore,

⁷ It is unlikely that solar facilities would be located entirely within either cultivated croplands or shrub/scrub lands; however, because actual project locations are unknown at this time, we conservatively assumed that solar facilities would be located within one of these two land cover types in order to determine the maximum potential land conversion. Calculation is based on the assumption that 3,651 MW of solar development occurs within the Plan Area during the permit term (Table 4 of the HCP), which would convert up to 36,510 acres of land (SEIA 2020) within either cultivated croplands or shrub/scrub lands, which occupy 30,317,391 acres and 27,096,738 acres, respectively within the Plan Area (Yang et al. 2018, Multi-Resolution Land Characteristics 2019). This represents less than 0.1% of either the existing cultivated croplands or shrub/scrub land.

no adverse socioeconomic impacts would be anticipated. Wind, solar, power line, and communication tower development under Alternatives 1 and 2 would be conducted in accordance with all federal, state, and local regulations and is not anticipated to result in substantial unsustainable development or substantial changes to soil nutrient regeneration, available pollinator habitat, or socioeconomic stability. Overall, both short- and long-term effects to land use resulting from the Covered Activities are expected to be minor.

Habitat mitigation that would occur as part of the Conservation Program under the HCP or CCAA would result in the conversion of cultivated croplands, herbaceous, and shrub/scrub lands to restored LEPC habitat, with the goal of creating LEPC strongholds and to ensuring connectivity between strongholds. As summarized in Section 3.1.3 of this EA and described in detail in Section 5.3.3 of the HCP, a total of 1,000,000 acres of habitat mitigation would occur through implementation of the HCP. The initial 50,000 acres would preserve currently suitable LEPC stronghold habitat. After the initial 50,000 acres has been secured, mitigation is assumed to be balanced equally between preservation and restoration activities. This would result in the preservation of 525,000 acres of existing LEPC habitat and the restoration of 475,000 acres of LEPC habitat that is currently cultivated croplands, herbaceous lands, or shrub/scrub lands.

We assume that mitigation parcels would be within areas representative of existing land use in the Plan Area, thus 33% of the 475,000 acres (156,750 acres) would be composed of cultivated croplands. This would represent conversion of 0.5% of the existing cultivated croplands in the Plan Area over the 30-year permit term, which would have a negligible impact on food supply. The remaining parcels of land where restoration of LEPC habitat would occur would include 152,000 acres of herbaceous land and 137,750 acres of shrub/scrub land. Herbaceous lands selected for restoration would not change land use type, and shrub/scrub habitat would either maintain its current land use classification or be converted to herbaceous land, depending on the restoration activities that would be implemented. Within these land use types, the suitability of the habitat for LEPC would be improved upon through the removal of woody invasive species, removal of old infrastructure (e.g., barns and unused roads), or additional restoration activities approved by the Service.

From an ecological perspective, converting the vegetation from cultivated croplands and shrub/scrub lands to herbaceous lands that provide strongholds or connectivity corridors for LEPC would result in restoration of native plant communities with increased species diversity. This form of land use change could increase the regeneration of soil nutrients and would provide habitat for many species that pollinate both cultivated croplands and natural vegetation. Overall, effects to land use resulting from implementation of the Conservation Program would be minor.

Implementation of the Covered Activities and the Conservation Program would result in both short- and long-term impacts to land use within the proposed Plan Area. Wind, power line, and communication tower development would result in primarily short-term changes to land use, while solar development would result in long-term changes. However, the long-term impacts from solar development would not be permanent, as previous land use would likely resume after decommissioning. Though some cultivated croplands and shrub/scrub habitat would be permanently converted to herbaceous lands from the habitat mitigation that would occur under the proposed HCP or CCAA, the amount of converted land would be a negligible portion of the overall coverage of these land cover types in the Plan Area. Additionally, land use change would be distributed throughout the Plan Area over the 30-year permit term, spreading out impacts to land use over time

and space. Therefore, the degree of intensity of both short- and long-term effects to land use is characterized as low.

5.2.1.2 Alternative 3 (No-Action)

Under the No-Action Alternative, a similar level of wind, solar, power line, and communication tower development would likely occur over a 30-year period within the Plan Area. As such, impacts to land use would be minor and would be similar to those described for Alternatives 1 and 2 as projects would be developed in accordance with federal, state, and local regulations. Some long-term land use conversion would occur due to wind, solar, power line, and communication tower facility development; however, after completion of the proposed construction activities, the majority of normal land use activities would be expected to resume. However, because there would be no incentives to avoid or minimize impacts within herbaceous or hay/pasture (LEPC habitat), long-term impacts to these land cover types would be expected to be somewhat higher than they would be under Alternative 1 or Alternative 2. In addition, the No-Action Alternative would not require habitat mitigation; therefore, no permanent conversion of either cultivated croplands or shrub/scrub land types would occur.

5.2.2 Noise

Implementation of the Covered Activities and associated wind, solar, power line, and communication tower development would have an impact on noise levels within the Plan Area. Potential impacts to wildlife and listed species associated with increased noise levels are discussed above (see Sections 5.1.2 and 5.1.3, respectively). Human response to noise is highly subjective and varies from person to person. However, increases in ambient noise levels can cause adverse impacts when any of the following result:

- interference with human speech and sleep;
- adverse health effects (e.g., hearing loss, psychological effects); or
- disproportionate impacts to noise sensitive areas (e.g., schools, residences, hospitals).

5.2.2.1 Alternatives 1 and 2

Increased noise levels associated with the Covered Activities and Conservation Program would occur during construction, maintenance, repowering, and decommissioning of enrolled projects, and during restoration activities. These increased noise levels would be short-term and would have a varying level of impact on the landscape based on topography, land use, and human population. Increases in ambient noise levels would primarily be limited to the immediate area surrounding activities associated with enrolled projects or restoration activities, which would occur primarily within LEPC habitat, cultivated croplands, and shrub/scrub. While increased noise levels from the Covered Activities would be above the ambient noise levels associated with a rural setting, because population density is lower in residential or rural areas (see Section 4.2.2), it is expected there would be few noise sensitive areas within the impacted areas.

Under Alternatives 1 and 2, the Applicant would receive authorization to impact up to 500,000 acres of suitable LEPC habitat and to preserve or restore 1,000,000 acres as habitat mitigation, which would be distributed throughout the 92,224,490 acre Plan Area over the 30-year permit term. The noise-impacted area would vary for each project enrolled under the HCP or CCAA; however, the

area impacted by increased noise levels associated with the Covered Activities is expected to be substantially less than the 500,000 acres of LEPC habitat impacts authorized under the ITP/ESP because a large percentage of those acres would be associated with LEPC impact buffers (see Table 3 in Section 4.3 of the HCP), where ground disturbance and other construction activities are not proposed. Nevertheless, at most, 1.6% of the Plan Area would be subjected to temporary increased noise levels at some point during the 30-year permit term (see Table 4 in Section 4.3 of the HCP).

State and local regulations would be expected to take noise impacts into account for each enrolled project. The regulatory processes for wind, solar, power line, and communication tower development vary across the five-state area, and are often regulated at the county level. Specific regulations for enrolled projects are not known at this time; however, special permits (e.g., special use permits, conditional use permits) are often required and involve some level of noise impact analysis. Covered Activities would be conducted in accordance with federal, state, and local regulations and appropriate BMPs would be developed and followed to avoid and/or minimize adverse impacts from increased noise levels.

Long-term impacts to noise could occur in association with general operation of enrolled projects; however, with the exception of maintenance, repowering, and decommissioning, which would be expected to result in temporary increases in noise levels that would be similar to construction activities because similar equipment would be required, the operation of enrolled projects is not a Covered Activity. As such, long-term impacts due to noise are discussed in the context of cumulative effects in Section 5.4.5, below.

Impacts from increased noise due to Covered Activities would be temporary, localized, and spread throughout the Plan Area over time and space. As such, the implementation of the Covered Activities and Conservation Program under Alternatives 1 and 2 would not be expected to result in adverse impacts to the human environment in relation to noise. The degree of noise impacts would be localized for each enrolled Project, and low in overall severity due to the short-term duration, adherence to state and local noise requirements, and low number of noise sensitive areas in the primarily rural areas enrolled projects would be located.

5.2.2.2 Alternative 3 (No-Action)

Under the No-Action Alternative, a similar level of wind, solar, power line, and communication tower development would likely occur over a 30-year period within the Plan Area. As such, impacts to noise levels would be similar to those described for Alternatives 1 and 2 as projects would be developed in accordance with federal, state, and local regulations. However, the No-Action Alternative would not require habitat mitigation; therefore, noise associated with restoration activities on mitigation lands would not occur. Under the No-Action Alternative, the degree of noise impacts would be localized for each enrolled Project, and low in overall severity for the same reasons described above for Alternatives 1 and 2.

5.2.3 Visual Resources

Implementation of the Covered Activities and associated wind, solar, power line, and communication tower development would have an impact on visual resources within the Plan Area. Potential impacts

to wildlife and listed species associated with visual impacts are discussed above (see Sections 5.1.2 and 5.1.3, respectively).

As they relate to the human environment, impacts to visual resources are highly subjective and can vary from person to person. However, impacts to visual resources can occur when any of the following result:

- obstruction of or substantial damage to a unique or scenic vista or resource;
- degradation of the existing visual character or quality of an area; or
- creation of a new source of light creating glare that could affect day or nighttime views in an area.

5.2.3.1 Alternatives 1 and 2

Impacts to visual resources associated with the Covered Activities and Conservation Program would occur during construction, maintenance, repowering, and decommissioning of enrolled projects, and during restoration activities. During construction, impacts would primarily be associated with construction of vertical structures (e.g., wind turbines, power poles, solar power towers, communication towers, and other aboveground facilities). Structures taller than 200 feet would also be marked with FAA-approved lighting, potentially affecting day or nighttime views.

Under Alternatives 1 and 2, the Applicant would receive authorization to impact up to 500,000 acres of suitable LEPC habitat and to preserve or restore 1,000,000 acres as habitat mitigation, which would be distributed throughout the 92,224,490 acre Plan Area over the 30-year permit term. The impacted viewshed would vary for each project enrolled under the HCP or CCAA based on the type of aboveground structures being constructed, local topography, vegetation present, and surrounding facilities. Because over 90% of the Plan Area is composed of cultivated croplands, herbaceous, and shrub/scrub lands (each of which is associated with a relatively open viewshed) in a rural setting, the taller features (e.g., wind turbines, solar power towers) would be a distinctive change to the viewshed in some areas, resulting in moderate adverse impacts to visual resources. Although the construction, maintenance, repowering, and decommissioning of project facilities are Covered Activities, which would result in long-term impacts to visual resources, general operation of enrolled projects is not a Covered Activity. As such, impacts to visual resources associated with operation (e.g., shadow flicker from wind turbines, glare from solar PV panels and power towers) are discussed in the context of cumulative effects in Section 5.4.6, below.

State and local regulations would be expected to take impacts to visual resources into account for each enrolled project. As with noise (see Section 5.2.2), the regulatory processes for wind, solar, power line, and communication tower development vary across the five-state area, and are often regulated at the county level. Specific regulations for enrolled projects are not known at this time; however, special permits (e.g., special use permits, conditional use permits) are often required and involve some level of visual resources impact analysis. Covered Activities would be conducted in accordance with federal, state, and local regulations and appropriate BMPs would be developed and followed to avoid and/or minimize adverse impacts to visual resources.

Impacts to visual resources due to the Covered Activities would be localized and spread throughout the Plan Area over time and space. The degree of impacts to visual resources would be localized for each enrolled Project, and moderate in overall severity; impacts may be partially offset in some areas

by beneficial impacts from an increase in preserved natural landscapes associated with the Conservation Program.

5.2.3.2 Alternative 3 (No-Action)

Under the No-Action Alternative, a similar level of wind, solar, power line, and communication tower development would likely occur over a 30-year period within the Plan Area. As such, impacts to visual resources would be similar to those described for Alternatives 1 and 2 as projects would be developed in accordance with federal, state, and local regulations. However, the No-Action Alternative would not require habitat mitigation; therefore, no beneficial impacts to visual resources would occur through the increase in preserved natural landscapes. Under the No-Action Alternative, the degree of impacts to visual resources would be localized for each enrolled Project, and moderate in overall severity for the same reasons described above for Alternatives 1 and 2.

5.3 Cultural Resources

5.3.1 Alternatives 1 and 2

Compliance with Section 106 of the NHPA, as amended, is required by law for all Federal undertakings. This includes issuance of Section 10(a)(1)(B) ITPs for activities covered in an HCP. Under Alternatives 1 and 2, prospective CI-holders, with the assistance of their cultural resource professional, would coordinate with the Service, SHPO(s), and THPO(s) to fulfill the requirements of Section 106 of the NHPA (16 USC 470f [1966], and its implementing regulations at 36 CFR part 800 [2000]). As described in detail in Appendix B, Worksheet 8 of the HCP (see Attachment A), for the portion of each project for which an ITP is being requested, prospective CI-holders would coordinate with the Service, SHPO(s), and THPO(s) to identify the area of potential effects (APE), which is the geographic area within which a project may directly or indirectly cause changes in the character or use of historic properties. In addition, prospective CI-holders would identify the efforts taken to identify historic properties within the APE, and the results of those efforts (e.g., information from the pre-project review; information from any cultural/historical resources field studies; and the procedure that would be followed to address inadvertent discoveries of human remains, burials, funerary items, sacred objects, or objects of cultural patrimony found during project implementation). Enrolled projects would be required to implement site-specific BMPs and impact buffers during ground disturbance activities to avoid and minimize impacts to cultural resources identified during site-specific cultural resource surveys.

Covered Activities would not be conducted on lands registered on the NRHP (see Section 1.5 of the HCP). In addition, Alternative 1 and Alternative 2 would accommodate access to and ceremonial use of Tribal sacred sites by Native American religious practitioners and avoid adversely affecting the physical integrity of such sacred sites (see Section 1.7 of the HCP).

Habitat mitigation that would occur as part of the Conservation Program under the HCP or CCAA would result in the preservation of existing grasslands and conversion of cultivated croplands to restored grasslands, potentially protecting existing cultural resources from future development. Therefore, the degree of intensity of both short- and long-term effects to cultural resources is characterized as low.

5.3.2 Alternative 3 (No-Action)

Under the No-Action Alternative, a similar level of wind, solar, power line, and communication tower development would likely occur over a 30-year period within the Plan Area. As such, impacts to cultural resources would be similar as what is described for Alternatives 1 and 2 as projects would be developed in accordance with federal, state, and local regulations. Therefore, both short- and long-term effects to cultural resources are expected to be minor.

5.4 Cumulative Effects

Cumulative effects are those resulting from “the incremental environmental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions” (40 CFR 1508.7). The CEQ guidelines acknowledge, “... in a broad sense all the impacts on affected resources are probably cumulative.” Nonetheless, it is important to “count what counts” and narrow the focus of the analysis to important national, regional, and local issues (CEQ 1997). The CEQ recommends the NEPA analysis should include those potential cumulative effects with direct influence on the agency’s action and decision-making. Thus, as per the CEQ guidelines, resources that would not be impacted by the Proposed Action or action alternatives, have beneficial effects, or are only subject to temporary effects were excluded from this analysis (CEQ 1997).

Past and present actions within the Plan Area include conversion of native habitats to cultivated croplands or grazing lands, energy generation, transmission projects and, to a lesser extent, urban and rural development. Reasonably foreseeable future actions within the Plan Area include 6,143 MW of wind development, 3,651 MW of solar development, 1,000 miles of power lines, and 1,134 new communication towers (see Table 4 in the HCP). While some of this development would be covered under the HCP or CCAA through enrolled projects, there would still likely be substantial wind, solar, power line, and communication tower development beyond what is associated with the programmatic permit. Oil and gas pipeline projects and associated surface exploration, exploratory drilling, field development, facility construction, and operation and maintenance would also be reasonably foreseeable actions within the Plan Area. The Plan Area is made up primarily of rural counties and the U.S. Census Bureau (2018) indicates relatively low or negative population growth for most counties within the Plan Area. As such, urban growth and development is not expected to be a substantial source of impacts to the LEPC or other human or natural resources in the Plan Area.

5.4.1 Vegetation

Past and present actions have resulted in changes to the vegetation communities within the Plan Area and surrounding region. Most notable is the conversion of native communities to support agricultural crop production and livestock grazing, which collectively make up over 90% of the Plan Area (NRCS 2006). Other activities, including rural development, transportation, oil and gas pipelines, wind energy generation, and electrical transmission lines have, to a lesser degree, also caused changes in the vegetation communities. These past and present actions have resulted in temporary and permanent loss of native plant communities, fragmentation of contiguous communities, and the introduction and spread of invasive plant species.

Reasonably foreseeable actions are likely to cause similar changes to native plant communities within and surrounding the Plan Area. Wind, solar, power line, communication tower, and oil and

gas development not covered under the HCP or CCAA would likely result in further loss, fragmentation, and degradation of vegetation communities. However, this development would be conducted in compliance with Section 402 of the CWA, which requires that construction activities disturbing at least one acre of land, and that discharge stormwater into surface waters obtain a National Pollutant Discharge Elimination System (NPDES) permit. As part of the NPDES permit, each project would be required to restore vegetation communities as part of its Stormwater Pollution Prevention Plan (SWPPP) and other industry-standard BMPs would likely be implemented, such as the avoidance of higher quality vegetation communities. Because of this, we assume most disturbance to vegetation communities from reasonably foreseeable future actions would likely occur within previously disturbed areas. Therefore, the issuance of an ITP for LEPC is not expected to result in significant cumulative effects to vegetation.

5.4.2 Wildlife

5.4.2.1 General Wildlife

Past and present actions have impacted wildlife and their habitats within the Plan Area. Actions that have resulted in the loss, fragmentation, and alteration of wildlife habitats have likely reduced species richness and abundance and shifted naturally occurring species community assemblages. Impacts to wildlife from past, present, and reasonably foreseeable future actions likely include direct injury and mortality to individuals, wildlife displacement and disturbance, and alteration and loss of suitable habitats.

Direct Mortality

Past, present, and reasonably foreseeable future actions within the Plan Area have the potential to cause direct mortality to wildlife. Direct mortality from both the Covered Activities and future oil and gas development is largely limited to the construction period and intermittent repairs throughout the life of the projects. Wildlife could be injured or killed from collisions with vehicles and machinery and possibly entrapped during soil disturbing activities associated with construction. Direct mortality from these activities would be short-term in duration and unlikely to be substantial enough to detrimentally impact general wildlife populations. However, reasonably foreseeable future actions within the Plan Area include the long-term operation of wind and solar projects, power lines, and communication towers, all of which have the potential to directly injure or kill birds and bats. The following sections evaluate the cumulative impacts from direct mortality to birds and bats due to the long-term operation of wind, solar, power line, and communication tower projects within the Plan Area.

Birds

Operation of wind projects (including both enrolled projects and non-enrolled projects) would result in bird collisions with turbine blades, causing cumulative mortality across the Plan Area. Estimates of bird mortality from wind turbine collisions in the U.S. range from 34,000 to 690,000 birds per year (Manville 2016). Passerines or songbirds are the most abundant bird group in the U.S. and also account for the most common species found as fatalities at wind projects (Erickson et al. 2014). Horned lark (*Eremophila alpestris*), black-throated blue warbler (*Setophaga caerulescens*) and tree swallow (*Tachycineta bicolor*) are some of the species most commonly found as fatalities at wind facilities (Erickson et al. 2014, Western EcoSystems Technology, Inc. [WEST] 2019). However, it is

estimated that less than 1% of passerine populations are killed as a result of wind turbine collisions annually, resulting in minimal population-level effects (Erickson et al. 2014).

Solar project operation would contribute to cumulative mortality within the Plan Area. Direct bird mortality from utility-scale solar operations has not been widely studied, and most fatality estimates are from projects in the desert southwest. While estimates of annual bird fatalities associated with solar projects in the U.S. are not available, direct mortality can occur at solar facilities due to collisions with solar panels or overhead lines, burning or being singed by the heat from solar power towers, increased predation, or stranding of water obligate birds unable to take off after landing (Manville 2016, Kosciuch et al. 2020). Of the various types of solar-generating facilities, solar power towers appear to pose the greatest mortality risk to birds (Manville 2016); however, these facilities are expected to be relatively rare in the Plan Area (see Section 4.3 of the HCP). A recent study reviewed fatality data from photovoltaic (PV) solar facilities in desert and grassland habitats of California and Nevada and concluded that the average annual fatality rate at PV solar facilities is 1.82 bird fatalities/MW/year, with most fatalities being from unknown causes (Kosciuch et al. 2020). Bird mortality at PV solar facilities appears to be partially attributable to background mortality and collisions with solar panels appear to be relatively uncommon (Kosciuch et al. 2020). Mourning dove (*Zenaidura macroura*), horned lark, western meadowlark (*Sturnella neglecta*), and house finch (*Haemorrhous mexicanus*) were the most common species found as fatalities at the PV solar sites (Kosciuch et al. 2020).

Birds may be injured or killed as the result of collisions or electrocutions when striking above-ground power lines and support structures, contributing to cumulative mortality within the Plan Area. Estimates of bird mortality from power lines in the U.S. range from nine million to 130 million birds per year (Erickson et al. 2005, Manville 2009, Loss et al. 2014). Bird species appear to have different vulnerabilities to both collision and electrocution with power lines due to several factors (e.g., morphology, flight height, and behavior; Martin 2011, 2014); however, further research is still needed to determine the most at-risk species (Manville 2016). A review of power line collisions presented raw counts of bird species found as fatalities during six power line collision studies in the U.S. (Loss et al. 2014). Eared grebe (*Podiceps nigricollis*), blue-winged teal (*Anas discors*), and American coot (*Fulica americana*) were the three species with the highest fatality counts (Loss et al. 2014).

Bird mortality can occur due to collisions with communication towers, contributing to cumulative mortality within the Plan Area. Estimates of bird mortality from collisions with communication towers in the U.S. range from 4 million to 50 million birds per year (Erickson et al. 2005, Manville 2009). Around 350 different species of birds have been documented as fatalities at communication towers (Manville 2016). Lapland longspurs (*Calcarius lapponicus*), golden-crowned kinglets (*Regulus satrapa*), and ruby-crowned kinglets (*Regulus calendula*) are examples of species that have been found as fatalities in large numbers at communication towers (Erickson et al. 2005, Manville 2009). Similar to wind, passerines appear to be more commonly found as fatalities at communication towers than other bird groups, likely resulting in minimal population-level effects (Arnold and Zink 2011).

Cat predation is considered the most significant anthropogenic source of bird mortality in the US (100 million to 2.4 billion bird fatalities per year; Dauphiné and Cooper 2011, Loss et al. 2013a), followed by collisions with buildings (304 million to 550 million bird fatalities per year; Loss et al. 2013b). It is estimated that anywhere from 500 million to several billion birds are killed annually in the US from anthropogenic causes (Erickson et al. 2005, Loss et al. 2012, Manville 2016). Compared

to other sources of anthropogenic bird mortality (e.g., depredation by domestic and feral cats, collisions with buildings, automobiles, planes, and trains), mortality from wind and solar project operations, power lines, and communication towers is low (Erickson et al. 2005, Dauphiné and Cooper 2009, Manville 2009, Loss et al. 2013a, 2013b).

While only a subset of this mortality would be expected to occur within the Plan Area, the Service acknowledges that bird mortality from reasonably foreseeable projects continues to be a concern. However, bird mortality from collisions with anthropogenic structures and electrocutions from power lines is distributed across hundreds of species, and does not appear to have a discernible effect on most bird populations (Arnold and Zink 2011, Erickson et al. 2014). Additionally, guidance documents (e.g., WEG, APLIC guidance) and state and federal agencies provide and encourage the implementation and development of BMPs to reduce bird mortality. Therefore, issuing an ITP for LEPC is not expected to result in significant cumulative effects to bird species.

Bats

Operation of wind projects causes direct mortality to bats from both collisions with turbine blades and barotrauma (i.e., injury or mortality from sudden and extreme changes in air pressure from the spinning turbine blades) and would contribute to cumulative bat mortality in the Plan Area. Published estimates of annual bat fatalities in the U.S. range as high as 888,000 bats per year (Smallwood 2013 as cited in Manville 2016). Twenty-seven North American bat species have been documented as fatalities at wind facilities (WEST 2019), with migratory tree-roosting bats (e.g., hoary bat [*Lasiurus cinereus*], eastern red bat [*Lasiurus borealis*], and silver-haired bat [*Lasionycteris noctivagans*]) being the most common species found as fatalities (American Wind Wildlife Institute [AWWI] 2018). Recent studies have provided documentation of potential declines in the hoary bat population from cumulative wind energy development and operation (Frick et al. 2017, Rodhouse et al. 2019, Electric Power Research Institute 2020), and substantial population-level declines may be a possibility for several tree-roosting bat species as a result of wind turbine collision. However, as forested habitat that would support tree-roosting bats only accounts for 0.7% of the Plan Area, mortality due to wind turbine operation in the Plan Area may be lower when compared to other regions with more forested habitat.

Direct bat mortality from solar, power line, and communication tower operations is not well studied. Some controlled studies have shown that bats may mistake horizontal surfaces for waterbodies and may perceive vertical surfaces as open flight paths (Grief et al. 2017 and Stilz 2017 as cited in Taylor et al. 2019), suggesting susceptibility to collisions with solar panels. However, direct mortality due to solar facility operation appears unlikely, as known bat fatality causes at solar facilities have been associated with large storage containers and operations and maintenance buildings (due to becoming trapped inside or killed from collisions with cooling fan blades) rather than collisions with solar panels (WEST 2017). While it is possible that bats could experience direct mortality due to collisions with power lines and communication towers, there is little research to support or inform the level of fatalities from either of these development types. Bats have been found incidentally in small numbers during bird mortality searches in power line corridors, and have only been reported anecdotally at communication towers (Manville 2016). As such, population-level effects from solar, power line, and communication tower operations appears unlikely.

White-nose syndrome (WNS) was first detected in the U.S. in Albany, New York in 2006, and has since spread across North America, killing millions of bats (Lorch et al. 2016). WNS is the largest

known source of mortality for cave-hibernating bats (e.g., little brown bat [*Myotis lucifugus*]); compared to the effects of WNS, cave-dwelling bat mortality at wind energy facilities is minor. WNS has not been documented in migratory tree-roosting species (e.g., hoary bat); however, migratory tree-roosting bats are the most common species found as fatalities at wind facilities (AWWI 2018).

Direct mortality from wind turbine collisions and WNS are the two main threats contributing to cumulative impacts to bats within the Plan Area. It appears that direct mortality is somewhat spread out across several bat species, as cave-hibernating bats are most impacted by WNS, and migratory tree-roosting bats are most impacted by collisions with wind turbines. Additionally, state and federal agencies and guidance documents provide and encourage the implementation of BMPs to reduce bat mortality from wind turbine collision (e.g., feathering wind turbines below the manufacturer's cut-in speeds to halt turbine blade rotation during low wind speeds when bats may be actively foraging). While the Service acknowledges that cumulative bat mortality is a rising concern, the issuance of an ITP for LEPC is not expected to result in significant cumulative effects to bat species.

Displacement and Disturbance

The potential for displacement and disturbance of wildlife species due to reasonably foreseeable future actions would be largely limited to the construction period for wind, solar, power line, communication tower, and oil and gas projects in the Plan Area. As described in Section 5.1.2 above, increased human presence, noise, and artificial light, can cause disturbance to normal wildlife activities and behaviors, particularly during the breeding, roosting, and denning seasons. Industry-standard BMPs would likely be implemented, including implementing disturbance buffers for certain wildlife species during the more sensitive seasons mentioned above. After the construction period, normal wildlife activities and behaviors would be expected to resume. Therefore, cumulative displacement and disturbance of wildlife species would be short-term in duration, and likely spread out over time and space.

Alteration and Loss of Suitable Habitats

Cumulative effects of land use conversion resulting in the loss, alteration, and fragmentation of wildlife habitat have largely taken place in the past, as agricultural land use has dominated the Plan Area for decades. Therefore, habitat loss and fragmentation from reasonably foreseeable future actions within the Plan Area is expected to be minor because wildlife habitat within the Plan Area has already been largely fragmented from past actions.

Summary of Cumulative Impacts to Wildlife

Reasonably foreseeable development within the Plan area is largely associated with energy and communication project development and operation, and it is anticipated that industry-standard BMPs would be implemented during both project construction and operation to reduce the potential for direct mortality and disturbance to wildlife and to reduce the loss and further fragmentation of wildlife habitat. As such, and because wildlife habitat within the Plan Area is already both disturbed and fragmented, cumulative effects to wildlife resulting from the issuance of an ITP for LEPC are expected to be minor and would not reduce naturally occurring populations to below levels needed for maintaining viability at local or regional levels.

5.4.2.2 Eagles

Past, present, and reasonably foreseeable future actions have resulted and would continue to result in cumulative effects on bald and golden eagles within the Plan Area and surrounding region. Similar to what is described above for general wildlife, these effects include direct injury or mortality of eagles as a result of collisions with wind turbines, solar power towers, power lines, and communication towers; power line electrocutions; displacement and disturbance due to development near nests; and potentially reducing the availability of preferred suitable habitats. Eagles may also experience direct mortality from poisoning (e.g., lead, DDT, rodenticides), poaching/shooting, aircraft and vehicle collisions, and disease (Service 2016b).

Direct mortality from both the Covered Activities and future oil and gas development is largely limited to the construction period and intermittent repairs throughout the life of the projects. Eagles are unlikely to be killed during soil disturbing activities, with the possible exception of vehicle collisions with eagles that are on the ground or very low flying. However, direct mortality from these activities would not be expected to be frequent enough to detrimentally impact eagle populations. Reasonably foreseeable future actions within the Plan Area include the long-term operation of wind and solar projects, power lines, and communication towers, all of which have the potential to directly injure or kill eagles. Both bald and golden eagles have been found as fatalities at wind facilities; however, golden eagles appear to be more susceptible to turbine blade collision than bald eagles (Pagel et al. 2013, Bay et al. 2016, Katzner et al. 2016, MidAmerican Energy Company 2019). Direct eagle mortality from colliding with solar panels and communication towers is unlikely; however, solar facilities have the potential to locally displace eagles from foraging habitats, particularly for golden eagles (Manville 2016). Power line electrocution is one of the primary causes of mortality for bald and golden eagles throughout their range and accounts for at least 25% of known eagle fatalities (Service 2016b).

Reasonably foreseeable wind, solar, power line, communication tower, and oil and gas projects would likely work with the Service to implement BMPs and pursue and obtain eagle take permits or nest disturbance permits to comply with BGEPA, if warranted. Many of these projects would likely be enrolled in the HCP or the LEPC Oil and Gas HCP (LPC Conservation LLC 2020), if authorized, both of which require project proponents to provide documentation of a plan for BGEPA compliance. The Service's 2016 cumulative effects analysis concluded that bald eagle populations have continued to increase despite cumulative factors, while golden eagle populations may be susceptible to decline due to cumulative mortality (Service 2016b). While the Service acknowledges that cumulative effects to golden eagles remain a concern, federal consultation under BGEPA, although voluntary, would provide the Service with an opportunity to ensure the cumulative amount of both bald and golden eagle take does not jeopardize the continued existence of either species. As such, the issuance of an ITP for LEPC is not expected to result in significant cumulative effects to bald or golden eagle populations.

5.4.3 Listed, Proposed, and Candidate Species

The LEPC is the only federally listed species for which take would be permitted under the ITP or ESP. Cumulative effects to any other species that may occur within the impact areas of enrolled projects would be documented and evaluated for each individual project to ensure ESA compliance, and the LEPC is the only listed species for which cumulative effects are analyzed further in this EA. Past and present actions have impacted LEPC individuals and habitat within and surrounding the Plan Area. Between 2015 and 2017, it was estimated that at least 258,000 acres of the LEPC range

was lost or disturbed due to agricultural conversion and energy development (Evans and Li 2017). Reasonably foreseeable actions are estimated to effect an additional 1,055,417 acres of suitable LEPC habitat within the Plan Area due to oil and gas development (LPC Conservation LLC 2020) and 1,207,916 acres of suitable LEPC habitat within the Plan Area due to wind, solar, power line, and communication tower development not covered under the HCP or CCAA. In addition to habitat loss and disturbance from agriculture, energy generation, and oil and gas, development, additional threats such as climate change, disease, hunting, nest parasitism by and competition with ring-necked pheasants, hybridization with greater prairie-chicken, and reduced genetic diversity and loss of fecundity due to small population sizes, all have the potential to further contribute to cumulative effects to the LEPC.

When combined with past, present, and reasonably foreseeable actions, implementation of the Covered Activities would contribute to adverse effects on the LEPC within the Plan Area. If the proposed rule to list the LEPC is adopted and the LEPC is afforded legal protection under the ESA in 2022, potential impacts from future federal projects have the potential to be avoided, minimized, and mitigated under ESA Section 7 and Section 10. As a result of the ESA consultation process, the Service ensures the cumulative amount of take of the LEPC allocated to permittees does not jeopardize the continued existence of the species. Conversely, the Service may determine that listing the LEPC is not warranted, or the species could be listed as threatened with a 4(d) rule, allowing for incidental take resulting from otherwise lawful activities. In this case, the Service's determination would be based on evidence supporting range-wide population stability for the LEPC; therefore, cumulative impacts from past, present, and reasonably foreseeable future actions would not be significant.

5.4.4 Land Use

Past and present actions have resulted in changes to land use within the Plan Area and surrounding region. Most notably is the conversion of natural communities (e.g., herbaceous, forested, and wetland land cover types) to support agricultural crop production and livestock grazing. Other activities, including rural development, transportation, oil and gas pipelines, wind energy generation, and electrical transmission lines have, to a lesser degree, also caused changes to land use. These past and present actions have resulted in temporary and permanent loss of natural land cover types. Reasonably foreseeable actions are likely to cause similar changes to land use in and surrounding the Plan Area.

Approximately 1,055,417 acres of land is expected to be impacted by oil and gas development within the Plan Area; however, impacts to land use would be short-term in duration (i.e., limited to the construction period) as most pre-existing land uses would likely resume following pipeline and oils well construction. Oil and gas development, along with wind, solar, power line, and communication tower projects not covered under the HCP or CCAA would result in further changes to land use, primarily due to solar projects as the other four forms of development allow for dual land use after construction while solar projects are limited in the potential land uses that could occur beneath the panels. For any solar development not covered under the HCP or CCAA, impacts to land use would be similar to those described in Section 5.2.1 above, resulting in a change of less than 0.1% of any of

the land cover types within the Plan Area.⁸ Additionally, this development would be conducted in compliance with federal, state, and local regulations and industry-standard BMPs would likely be implemented. As such, and because most land use changes within the Plan Area took place in the past, significant cumulative effects to land use as a result of issuing an ITP for LEPC are not expected.

5.4.5 Noise

Past, present, and reasonably foreseeable future actions have resulted, and will result, in short-term and long-term noise impacts in the Plan Area. Implementation of the Covered Activities and the related construction activities, associated traffic, and operational activities would contribute to cumulative noise impacts. Of the reasonably foreseeable future actions, wind development would be the greatest contributor to long-term cumulative noise impacts within the Plan Area. However, wind, solar, power line, communication tower, and oil and gas development would be subject to all applicable federal, state, and local permit siting requirements. As part of these regulations, developers would be expected to analyze noise impacts and appropriate BMPs would be developed and implemented to minimize noise impacts. Furthermore, noise impacts would be localized and spread throughout the Plan Area over time and space. As such, cumulative noise impacts from past, present, and reasonably foreseeable future actions would not be significant.

5.4.6 Visual Resources

Past, present, and reasonably foreseeable future actions have resulted, and will result, in impacts to the visual resources in the Plan Area. Implementation of the Covered Activities and project operations would contribute to long-term cumulative impacts on visual resources in the Plan Area by adding wind turbines, power poles, solar PV panels and power towers, communication towers, other aboveground facilities. As discussed in Section 5.2.3, structures taller than 200 feet would also be marked with FAA-approved lighting.

Because over 90% of the Plan Area is composed of cultivated croplands, herbaceous, and shrub/scrub lands (each of which is associated with a relatively open viewshed) in a rural setting, the taller features (e.g., wind turbines, solar power towers) would be a distinctive change to the viewshed in some areas, resulting in moderate adverse cumulative impacts to visual resources.

Cumulative impacts to visual resources would primarily be associated with wind and solar projects. Operation of wind turbines would create shadow flicker, which is the effect of the sun shining through the rotating blades of an operating wind turbine, casting moving shadows that appear to flicker (U.S. Department of Energy 2020). Shadow flicker can be perceived as a nuisance to nearby home owners. As part of the state and local permit process, as well as general due diligence, most wind projects would be expected to conduct project-specific analyses to model the amount of time that shadow flicker would occur at each affected residence. If the annual hours of shadow flicker exceed permit requirements or other industry best practice levels at any residence, wind projects would be expected to modify the project design, obtain landowner approval, or seek a variance for

⁸ Calculation is based on the assumption that 3,651 MW of solar development could occur within the Plan Area during the permit term (Table 4 of the HCP), which would convert up to 36,510 acres of land (SEIA 2020) within the Plan Area. This represents less than 0.1% of all land cover types within the Plan Area, regardless of whether or not the solar development is covered under the HCP or CCAA.

the exceedance. Because shadow flicker would be localized and would be conducted in accordance with state and local siting requirements and/or general industry best practices, cumulative impacts due to shadow flicker are not expected to be significant.

Operation of solar PV panels and power towers would create glare, which could result in adverse impacts to nearby residences, drivers along area roadways, and nearby airports. As with shadow flicker, solar projects would be expected to model potential impacts associated with glare and design and operate each project in accordance with permit requirements and/or industry best practices. As such, although glare may be perceptible from long distances (particularly glare associated with power towers), cumulative impacts are not expected to be significant.

5.4.7 Cultural Resources

Past, present, and reasonably foreseeable future actions have resulted, and will result, in impacts to cultural resources. Impacts have likely occurred during soil disturbing activities and artifact collection. Implementation of the Covered Activities would not be expected to contribute to the cumulative impacts of known cultural resources based on compliance with state and federal laws that protect and mitigate impacts to cultural resources; therefore, cumulative effects to cultural resources are not anticipated.

6 CONSULTATION AND COORDINATION

6.1 Agency Coordination

The Service sent notifications requesting input from potentially affected tribal governments within and surrounding the Plan Area during the public comment period on the proposed HCP and this EA. The Service did not receive any comments or letters from tribal entities on the draft EA, and no substantive changes have been made to the final EA based on tribal coordination. In support of the application to provide incidental take coverage for LEPC for wind, solar, power line, and communication tower development, the Applicant coordinated with the Service and would continue to coordinate with other applicable entities through the development of the HCP Advisory Board (see Section 9.1.2 of the HCP). Additionally, each individual project enrolled under the HCP or CCAA would be required to coordinate with all applicable federal, state, and local agencies to ensure compliance with the appropriate statutes and regulations and to inform project-specific LEPC impact analysis.

6.2 Distribution of the Draft Environmental Assessment

In accordance with NEPA, the draft EA, as well as the HCP and other application materials, was made public for 30 days to solicit public comments. A Notice of Availability in the FR on April 14, 2021 (86 FR 19634). Comments received on this draft EA were incorporated into this final EA, and are as Attachment E.

**Attachment A. Renewable (Wind and Solar) Energy, Power Line, and Communication
Tower Habitat Conservation Plan for the Lesser Prairie-Chicken**

Attachment B. Federal and State-Listed, Proposed, Candidate Species, and Critical Habitats with the Potential to Occur within the Plan Area and be Impacted by the Issuance of the Incidental Take Permit for Lesser Prairie-Chickens.

Table B-1. Federally listed Species with the Potential to Occur within the Plan Area for the Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|---|----------------|--------------|---|
| Mammals | | | |
| Black-footed Ferret <i>Mustela nigripes</i> | FE | SE – CO, KS | Limited to open habitat such as semi-arid grasslands, steppe, and shrub steppe. Black-footed ferrets are limited by prairie dog (<i>Cynomys</i> spp.) occurrence, as they depend on prairie dogs for food and prairie dog burrows for shelter (USFWS 2013). |
| Canada Lynx ¹ <i>Lynx canadensis</i> | FT | SE – CO | Prefers moist, boreal forest with cold, snowy winters and a high density of snowshoe hares (<i>Lepus americanus</i>) as the main prey base (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| New Mexico Meadow Jumping Mouse <i>Zapus hudsonius luteus</i> | FE | SE – NM | Riparian communities and adjacent uplands in grassland and shrub-scrub habitats with tall, emergent herbaceous forbs and sedges (USFWS 2014b). |
| Northern Long-eared Bat ¹ <i>Myotis septentrionalis</i> | FT | NL | Found in forest interior and riparian areas (Lausen 2009). Typically avoids open habitats (Owen et al. 2003). Hibernates in caves, mines, and sometimes buildings. In summer, roosts singly or in colonies underneath tree bark or in tree cavities (USFWS 2014a). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Penasco Least Chipmunk <i>Tamias minimus atristriatus</i> | FC | SE – NM | Subalpine Thurber's fescue (<i>Festuca thurberi</i>) meadow with deciduous shrubs or upper montane coniferous forest (Frey and McKibben 2018). |
| Preble's Meadow Jumping Mouse <i>Zapus hudsonius preblei</i> | FT | ST – CO | Dense, herbaceous riparian habitat and adjacent upland grasslands (USFWS 2018). |
| Birds | | | |
| Eastern Black Rail* ¹ <i>Laterallus jamaicensis</i> spp. <i>jamaicensis</i> | FT | ST – TX | Wetland-dependent species inhabiting palustrine and estuarine wetlands, such as wet grasslands and emergent marshes. Wetlands can be of varying salinity, but the species has a preference for emergent wetlands with dense, persistent, overhead herbaceous cover (US Fish and Wildlife Service [USFWS] 2020a). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Golden-cheeked Warbler ¹ <i>Dendroica chrysoparia</i> | FE | SE – TX | Mature, closed canopy Ashe juniper (<i>Juniperus ashei</i>) woodlands (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |

Table B-1. Federally listed Species with the Potential to Occur within the Plan Area for the Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|--|----------------|---------------------|--|
| Mexican Spotted Owl ¹ <i>Strix occidentalis lucida</i> | FT | ST – CO, TX | Spotted owls are residents of old-growth or mature forests that possess complex structural components (uneven aged stands, high canopy closure, multi-storied levels, high tree density; NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Northern Aplomado Falcon <i>Falco femoralis septentrionalis</i> | FE, EXPN | SE – NM, TX | Open terrain with scattered trees or shrubs such as yucca (<i>Yucca</i> spp.)-covered sand ridges in coastal prairies, riparian areas adjacent to grasslands, and in desert grasslands with scattered mesquite (<i>Prosopis</i> spp.) and yucca (USFWS 1990). |
| Piping Plover** ¹ <i>Charadrius melodus</i> | FT | ST – CO, KS, NM, TX | Shorelines around small alkaline lakes, river islands and adjacent sand pits, reservoir beaches, beaches surrounding large lakes, and pond shorelines (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Red Knot ¹ <i>Calidris canutus rufa</i> | FT | ST – TX | Breeding habitats are elevated and sparsely vegetated ridges or slopes. They are often adjacent to wetlands and lake edges for feeding. Wintering and migration habitats are often muddy or sandy coastal areas, such as the mouths of bays and estuaries, and tidal flats (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> | FE | SE – CO, NM, TX | Dense, forested riparian habitats are required for nesting; however, migration and foraging habitat includes old field, shrubland/chaparral, and mixed hardwood forest (NatureServe 2020). |
| Western Yellow-billed Cuckoo ^{1,2} <i>Coccyzus americanus occidentalis</i> | FT | NL | Generally breeds in deciduous riparian woodland, especially including dense stands of cottonwood (<i>Populus</i> spp.) and willow (<i>Salix</i> spp.), but also including mesquite and salt-cedar (<i>Tamarisk</i> spp.) in some areas. Along the Lower Colorado River, yellow-billed cuckoos occupied riparian areas that had higher canopies, denser cover in the upper layers of the canopy, and sparser shrub layers when compared to unoccupied sites; at the landscape level, the amount of cottonwood-willow-dominated vegetation cover in the landscape and the width of riparian habitat appeared to influence positively cuckoo distribution and abundance. Nests are placed in dense cover of trees, shrubs, or vines, often in mature willows, cottonwoods, and sometimes tamarisk (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |

Table B-1. Federally listed Species with the Potential to Occur within the Plan Area for the Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|---|----------------|---------------------------|---|
| Whooping Crane <i>Grus americana</i> | FE, EXPN | SE – CO, KS, NM, TX | Coastal marshes and estuaries, inland marshes, lakes, ponds, riparian areas, wet meadows and rivers, and agricultural fields (NatureServe 2020). |
| Fish | | | |
| Arkansas River Shiner ¹ <i>Notropis girardi</i> | FT | SE – KS, NM ST – TX | Wide, shallow, unshaded creeks and small to large rivers, especially those with silt and sand substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Comanche Springs Pupfish ¹ <i>Cyprinodon elegans</i> | FE | SE – TX | Freshwater springs, marshes, and canals with mud substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Devils River Minnow ¹ <i>Dionda diaboli</i> | FT | ST – TX | Endemic to Texas. Fast-flowing, clear, spring-fed water with gravel substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Greenback Cutthroat Trout ¹ <i>Oncorhynchus clarkii stomias</i> | FT | ST – CO | Mountain streams with fast-flowing water and lakes with overhanging banks or vegetation cover (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Leon Springs Pupfish ¹ <i>Cyprinodon bovinus</i> | FE | SE – TX | Endemic to Texas. Shallow saline springs, pools, and outflow springs. Common in outflows from Diamond Y Spring (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Mexican Blindcat (catfish) ¹ <i>Prietella phreatophila</i> | FE | SE – TX | Subterranean waters in wells, mine shafts, and caves with silt substrate (IUCN 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Pallid Sturgeon ¹ <i>Scaphirhynchus albus</i> | FE | SE – KS | Turbid riverine waters, strong currents with gravel or sand substrate. Sometimes occurs in reservoirs. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |

Table B-1. Federally listed Species with the Potential to Occur within the Plan Area for the Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|---|----------------|---------------------------|---|
| Pecos Bluntnose Shiner ¹ <i>Notropis simus pecosensis</i> | FT | SE – NM | Main river channels with large flows and sand, gravel, or silt substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Pecos Gambusia ¹ <i>Gambusia nobilis</i> | FE | SE – NM, TX | Clear spring waters high in calcium carbonate, waters with fairly constant temperature and vegetation (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Peppered Chub <i>Macrhybopsis tetranema</i> | PE | SE – KS ST – NM, TX | Large, permanently flowing streams with clean, fine sand substrates (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Rio Grande Silvery Minnow ¹ <i>Hybognathus amarus</i> | EXPN | SE – NM, TX | Pools and backwaters of creeks and small to large rivers with slow to moderate flowing waters associated with the Rio Grande River. Typically occurs in shallow water with silt substrate. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Sharpnose Shiner ¹ <i>Notropis oxyrhynchus</i> | FE | SE – TX | Endemic to Texas. Medium to large rivers or pools with sand, gravel, or mud substrate and shallow water (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Smalleye Shiner ¹ <i>Notropis buccula</i> | FE | SE – TX | Endemic to Texas. Small to medium river channels with shallow water and sand substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Topeka Shiner ¹ <i>Notropis topeka</i> | FE | ST – KS | Open, permanent pools of small, clear headwaters and creeks (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Invertebrates | | | |
| American Burying Beetle ² <i>Nicrophorus americanus</i> | FT, EXPN | SE – KS | Occurs in a variety of habitats, such as grassland, shrubland, and hardwood forests. May occur in areas with mowed or grazed fields to dense shrub areas. Adults typically live aboveground, but may overwinter in soil and lay eggs in soil next to buried carcasses. (NatureServe 2020) |

Table B-1. Federally listed Species with the Potential to Occur within the Plan Area for the Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|--|----------------|--------------|--|
| Diamond Tryonia ¹ <i>Pseudotryonia adamantina</i> | FE | SE – TX | Endemic to Texas. Lives near small springs, seeps, and marshes, and flowing water. Especially near cattail and sedge-dominated wetlands. Typically lives on muddy substrates. (NatureServe 2020) This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Diminutive Amphipod ¹ <i>Gammarus hyalleloides</i> | FE | SE – TX | Endemic to Texas. Lives on rocky or gravel substrate in warm, mineralized, flowing spring water originating from caves (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Gonzales Tryonia ¹ <i>Tryonia circumstriata</i> | FE | SE – TX | Endemic to Texas. Lives in springs, seeps, and marshes near sedges and cattails, especially on mud substrates (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Koster's Springsnail ¹ <i>Juturnia kosteri</i> | FE | SE – NM | Endemic to New Mexico. Lives in springs with slow to moderate flowing water, typically on silt, sand, or gravel compacted substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Monarch Butterfly ² <i>Danaus plexippus</i> | FC | NL | Adult monarch butterflies feed on nectar from a wide variety of flowers, but larvae only feed on milkweed (<i>Asclepias</i> spp.). Adults feed in fields, along roads, open areas, wet areas, and gardens on milkweeds and other flowering plants. Breeding only occurs where there are milkweed plants (US Forest Service 2021) |
| Noel's Amphipod ¹ <i>Gammarus desperatus</i> | FE | SE – NM | Endemic to New Mexico. Lives in warm, mineralized water (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Pecos Amphipod ¹ <i>Gammarus pecos</i> | FE | SE – TX | Springs or brooks near the Pecos River (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Pecos Assiminea Snail ¹ <i>Assiminea pecos</i> | FE | SE – NM, TX | Aquifer-fed spring systems in desert grasslands of the Pecos River basin. Typically found in moist areas near flowing water, under vegetation such as grasses or sedges. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |

Table B-1. Federally listed Species with the Potential to Occur within the Plan Area for the Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|---|----------------|--------------|--|
| Phantom Springsnail ¹ <i>Pyrgulopsis texana</i> | FE | SE – TX | Endemic to Texas. Lives in mineralized spring water near caves, especially in shallow water. Lives near the sources of three springs and is found on hard substrates. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Phantom Tryonia ¹ <i>Tryonia cheatumi</i> | FE | SE – TX | Endemic to Texas. Lives in springs, namely the Phantom Lake Spring and associated waters, especially on mud or gravel substrates (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Roswell Springsnail ¹ <i>Pyrgulopsis roswellensis</i> | FE | SE – NM | Endemic to New Mexico. Lives on pebbles and silt, and sometimes on mud or vegetation underwater. Typically in spring heads and runs with slow to moderate flowing water. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Texas Fatmucket ¹ <i>Lampsilis bracteata</i> | FC | ST – TX | Endemic to Texas. Lives in the Texas Hill Country in streams and smaller rivers. Typically in shallow water with sand, mud, and gravel substrates, and occurs near bedrock along banks. (NatureServe 2020) This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Texas Fawnsfoot ¹ <i>Truncilla macrodon</i> | FC | ST – TX | Endemic to Texas. Lives in rivers and large streams with moderate flowing water in sand, gravel, and mud substrates (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Texas Hornshell ¹ <i>Popenaias popeii</i> | FE | SE – NM, TX | In water at riverbanks, crevices and shelves near boulders, especially in sand and cobble substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Texas Pimpleback ^{1,2} <i>Quadrula petrina</i> | FC | ST – TX | Endemic to Texas. Lives in shallow slow to moderate flowing water, in mud, sand, gravel, and cobble substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |

Table B-1. Federally listed Species with the Potential to Occur within the Plan Area for the Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|---|----------------|--------------------|--|
| Flowering Plants | | | |
| Bunched Cory Cactus <i>Coryphantha ramillosa</i> | FT | ST – TX | Chihuahuan Desert succulent scrub on rocky slopes, ledges, and gravelly limestone flats (NatureServe 2020). |
| Gypsum Wild-buckwheat <i>Eriogonum gypsophilum</i> | FT | SE – NM | Semi-arid open grassland dominated by grama species and creosote bush (<i>Larrea tridentata</i>) communities (NatureServe 2020). |
| Holy Ghost Ipomopsis ¹ <i>Ipomopsis sancti-spiritus</i> | FE | SE – NM | Forest edge habitat and along roadsides within Santa Fe National Forest (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Kuenzler Hedgehog Cactus <i>Echinocereus fendleri</i> var. <i>kuenzleri</i> | FT | SE – NM | Grassland and herbaceous habitat on the fringes of pinyon-juniper (<i>Pinus-Juniperus</i> spp.) savannah (NatureServe 2020). |
| Lee Pincushion Cactus ¹ <i>Coryphantha sneedii</i> var. <i>leei</i> | FT | SE – NM | Restricted to Tansil Limestone Formation on north-facing ledges, slopes, and ridgetops; known populations within Carlsbad Caverns National Park (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Lloyd's Mariposa Cactus <i>Echinomastus mariposensis</i> | FT | ST – TX | Arid desert and shrubland/chaparral habitats with gravelly, limestone-derived soils on gentle slopes (NatureServe 2020). |
| Pecos Sunflower ¹ <i>Helianthus paradoxus</i> | FT | SE – NM ST – TX | Desert wetlands associated with springs; requires permanent wetlands for survival. Most known populations are located within protected areas in New Mexico and Texas (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Sneed Pincushion Cactus <i>Coryphantha sneedii</i> var. <i>sneedii</i> | FE | SE – TX | Desert and desert grassland habitats with limestone ledges and slopes dominated by creosote bush, yucca species, and grama species (NatureServe 2020). |
| Texas Poppy-mallow <i>Callirhoe scabriuscula</i> | FE | SE – TX | Grasslands, shin oak shrublands, and mesquite woodlands with deep, loose sandy soil from alluvial deposits of the Colorado River (NatureServe 2020). |
| Texas Snowbells ¹ <i>Styrax texanus</i> | FE | SE – TX | Limestone cliffs, bluffs, and ledges within riparian habitat and surrounded by sycamore-little walnut (<i>Platanus</i> spp.- <i>Juglans microcarpa</i>), oak (<i>Quercus</i> spp.), or oak-juniper woodlands (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |

Table B-1. Federally listed Species with the Potential to Occur within the Plan Area for the Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|--|----------------|--------------|--|
| Tobusch Fishhook Cactus <i>Sclerocactus brevihamatus</i> ssp. <i>tobuschii</i> | FT | SE – TX | Riparian areas and adjacent shortgrass grasslands and semi-desert shrublands interspersed with oak-juniper woodlands (NatureServe 2020). |
| Ute Ladies'-tresses ¹ <i>Spiranthes diluvialis</i> | FT | NL | Wet meadows, riparian corridors, perennial streams, and floodplains with regular spring flooding or frequent large-scale floods (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Western Prairie Fringed Orchid ^{1,2} <i>Platanthera praeclara</i> | FT | ST – CO | Moist to wet calcareous tallgrass prairies and sedge meadows with perennial flooding (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Wright's Marsh Thistle ¹ <i>Cirsium wrightii</i> | PT | SE – NM | Marshy wetlands near springs and requires saturated soils and surface/subsurface water flows (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |

RENEWABLE ENERGY, POWER LINE, AND COMMUNICATION TOWER
PROPOSED HCP AND ITP FOR LESSER PRAIRIE-CHICKEN

EXPN = population is experimental non-essential in survival of the overall species, FC = candidate for federal listing, FE = federally endangered, FT = federally threatened, NL = not listed, PE = proposed endangered for federal listing, PT = proposed threatened for federal listing, SE = state endangered, ST = state threatened

ITP = Incidental Take Permit, LEPC = Lesser Prairie-Chicken (*Tympanuchus pallidicinctus*)

- ¹ Federally listed species with the potential to occur within the Plan Area but not expected to occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands are unlikely to be impacted by the issuance of an ITP for LEPC and have been dismissed from detailed analysis.
- ² Identified through our state-level threatened and endangered species analysis as potentially occurring within the Plan Area but not identified through the Information for Planning and Consultation Tool (IPaC; USFWS 2021). These additional sources may include:

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Colorado Natural Heritage Program. No date. Colorado Parks and Wildlife Department: Wildlife Species Profiles. Accessed July 2021. Available online: <https://cpw.state.co.us/learn/Pages/SpeciesProfiles.aspx>

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Texas Parks and Wildlife Department (TPWD). 2020. Updated List of State T & E Species in Texas - Effective March 30, 2020. TPWD, Austin, Texas. Accessed July 21, 2021. Available online: https://tpwd.texas.gov/huntwild/wild/wildlife_diversity/nongame/listed-species/media/fedState-ListedSpeciesComplete-3302020.pdf

Texas Parks and Wildlife Department (TPWD). 2021. Rare, Threatened, and Endangered Species of Texas. TPWD, Austin, Texas. Accessed July 2021. Available online: <https://tpwd.texas.gov/gis/rtest/>

* The eastern black rail is listed as “black rail (*Laterallus jamaicensis*)” by the TPWD. The eastern black rail subspecies is the only subspecies found in the Plan Area (see NatureServe 2020), so eastern black rail is synonymous with black rail in the context of this document.

** The Colorado Parks and Wildlife Department lists the subspecies of the piping plover (*Charadrius melodus circumcinctus*) as a state-listed threatened species. For the purposes of this analysis, the parent species and subspecies will be considered to be the same.

Sources:

Frey, J. K., and F. McKibben. 2018. 2018 Year End Report. Distribution, Abundance, and Habitat Selection by the Penasco Least Chipmunk (*Neotamias minimus atristriatus*). Submitted to New Mexico Department of Game and Fish, share with Wildlife Program, Ecological and Environmental Planning Division. December 19, 2018. Available online: <http://www.wildlife.state.nm.us/download/conservation/share-with-wildlife/reports/2018/Distribution-abundance-and-habitat-selection-by-the-Penasco-least-chipmunk-Tamias-minimus-atristriatus-revealed-by-N-mixture-models--Jennifer-Frey.pdf>

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Table B-1. Federally listed Species with the Potential to Occur within the Plan Area for the Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|---|----------------|--------------|----------------------------|
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| US Fish and Wildlife Service (USFWS). 1990. Northern Aplomado Falcon Recovery Plan. USFWS, Albuquerque, New Mexico. 56 pp. Available online: https://ecos.fws.gov/docs/recovery_plan/northern%20aplomado%20falcon%20recovery%20plan%201990.pdf | | | |
| US Fish and Wildlife Service (USFWS). 2013. Recovery Plan for the Black-Footed Ferret (<i>Mustela nigripes</i>). USFWS, Denver, Colorado. 157 pp. Available online: https://ecos.fws.gov/docs/recovery_plan/20131108%20BFF%202nd%20Rev.%20Final%20Recovery%20Plan.pdf | | | |
| US Fish and Wildlife Service (USFWS). 2014a. Northern Long-Eared Bat Interim Conference and Planning Guidance. USFWS Regions 2, 3, 4, 5, and 6. January 6, 2014. Available online: http://www.fws.gov/northeast/virginiafield/pdf/NLEBinterimGuidance6Jan2014.pdf | | | |
| US Fish and Wildlife Service (USFWS). 2014b. Species Status Assessment Report. New Mexico Meadow Jumping Mouse (<i>Zapus hudsonius luteus</i>). Prepared by the Listing Review Team, USFWS, Albuquerque, New Mexico. May 27, 2014. Available online: https://ecos.fws.gov/ServCat/DownloadFile/161605 | | | |
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Table B-2. Federally Designated Critical Habitat that Occurs within the Plan Area for the Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Critical Habitat Notes |
|--|----------------|---------------------------|---|
| Birds | | | |
| Whooping Crane <i>Grus americana</i> | FE, EXPN | SE – CO, KS, NM, TX | <p>Three critical habitat units for the whooping crane occur within the Plan Area (USFWS 1978).</p> <ul style="list-style-type: none"> • Unit 4: Cheyenne Bottoms State Waterfowl Management Area (Kansas) • Unit 5: Quivira National Wildlife Refuge (Kansas) • Unit 8: Salt Plains National Wildlife Refuge (Oklahoma) <p>All three critical habitat units are managed by either a state or federal agency, and are thereby precluded from the Covered Activities under the HCP, and would not be impacted by the issuance of an ITP for LEPC.</p> |
| Fish | | | |
| Arkansas River Shiner <i>Notropis girardi</i> | FT | SE – KS, NM ST – TX | <p>Two river reaches designated as critical habitat for the Arkansas River Shiner partially occur within the Plan Area (USFWS 2005).</p> <ul style="list-style-type: none"> • Unit 1b: Canadian River from south of Fay, Oklahoma, to the edge of the Plan Area east of Hinton, Oklahoma. • Unit 3: Cimarron River from southwest of Kismet, Kansas, to the edge of the Plan Area east of Dover, Oklahoma. |
| Leon Springs Pupfish <i>Cyprinodon bovinus</i> | FE | SE – TX | Diamond Y Springs and its outflow, Leon Creek (Diamond Draw), from the origin to one mi (1.6 km) past Texas State Highway 18 crossing (USFWS 1980). Diamond Y Springs is located entirely on private lands managed by The Nature Conservancy, and is thereby precluded by the Covered Activities under the HCP, and would not be impacted by the issuance of an ITP for LEPC. |
| Pecos Bluntnose Shiner <i>Notropis simus pecosensis</i> | FT | SE – NM | <p>Two river reaches designated as critical habitat for the Pecos bluntnose shiner partially occur within the western edge of the Plan Area in New Mexico (USFWS 1987).</p> <ul style="list-style-type: none"> • Complex 1: Pecos River from north boundary of 1N; 26E; NE1/4 Sec 2 downstream to south boundary of 5S; 25E; SW1/4 Sec 35. • Complex 2: Pecos River from west boundary of 14S; 27E; NW1/4 Sec 7 downstream to 17S; 27E; NW1/4 Sec 18 (US Highway 82 bridge). |
| Peppered Chub <i>Macrhybopsis tetranema</i> | PE | SE – KS ST – NM, TX | <p>Four units are designated as critical habitat in the Plan Area. Only one unit, Unit 1 - Upper South Canadian River, is reported as occupied by the species. The remaining three units are considered unoccupied, but essential habitat for the conservation of the peppered chub (USFWS 2020a). Each unit includes river habitat up to bank full height.</p> <ul style="list-style-type: none"> • Unit 1 - Upper South Canadian River: Unit 1 consists of approximately 197.16 river mi (317.29 river km) of the South Canadian River originating from Ute Dam west of Logan, New Mexico, and extending |

Table B-2. Federally Designated Critical Habitat that Occurs within the Plan Area for the Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Critical Habitat Notes |
|--|----------------|--------------|---|
| | | | <p>downstream to Lake Meredith in Texas, including part of Revuelto Creek from the Interstate Highway 40 crossing to the downstream confluence with the South Canadian River, New Mexico. Land ownership in Unit 1 is largely private or “other” (non-federal ownership, likely to be tribal or private).</p> <ul style="list-style-type: none"> Unit 2 - Lower South Canadian River.: Unit 2 is approximately 400.01 river mi (643.86 river km) from the South Canadian River US Highway 83 bridge north of Canadian, Texas, and extending downstream to the US Highway 75 bridge northwest of Calvin, Oklahoma. Unit 3 - Arkansas/Ninnescah River: This unit is about 178.96 river mi (288.02 river km) of the South Fork Ninnescah River originating at the Highway 54/400 bridge east of Pratt, Kansas, and extending downstream to the River Road Bridge east of Newkirk, Oklahoma. Unit 4- Cimarron River: Unit 4 is about 291.82 river mi (469.63 river km) of the Cimarron River from the US Highway 183 Bridge east of Englewood, Kansas, and extending downstream to the Oklahoma 51 bridge northeast of Oilton, Oklahoma. |
| Invertebrates | | | |
| Diamond Tryonia <i>Pseudotryonia adamantina</i> | FE | SE – TX | The only critical habitat unit, Diamond Y Springs, falls within the southernmost portion of the Plan Area, north of Fort Stockton, Texas (USFWS 2013). Diamond Y Springs is located entirely on private lands managed by The Nature Conservancy, and is thereby precluded by the Covered Activities under the HCP, and would not be impacted by the issuance of an ITP for LEPC. |
| Gonzales Tryonia <i>Tryonia circumstriata</i> | FE | SE – TX | The only critical habitat unit for this species in the Plan Area is the same for unit for diamond tryonia, Diamond Y Springs, and the unit is precluded by the covered activities as described above for diamond tryonia. |
| Koster's Springsnail <i>Juturnia kosteri</i> | FE | SE – NM | <p>Several waterbodies designated as critical habitat for Koster’s springsnail occur within the western portion of the Plan Area, east of Chaves, New Mexico (USFWS 2011), totaling 61 ac (25 ha).</p> <ul style="list-style-type: none"> Unit 1: Sago/Bitter Creek Complex Unit 2a: Springsnail/Amphipod Impoundment Complex Unit 2a/b: Springsnail/Amphipod/Assimineia Impoundment Complex |
| Noel's Amphipod <i>Gammarus desperatus</i> | FE | SE – NM | <p>Several waterbodies designated as critical habitat for Noel’s amphipod occur within the western portion of the Plan Area, east of Chaves, New Mexico (USFWS 2011), totaling 64 ac (26 ha).</p> <ul style="list-style-type: none"> Unit 1: Sago/Bitter Creek Complex. This unit is located entirely on lands owned and managed by the Service, within the Middle Tract of Bitter Lake National Wildlife Refuge, and is thereby precluded by the Covered Activities under the HCP, and would not be impacted by the issuance of an ITP for LEPC. Unit 2a: Springsnail/Amphipod Impoundment Complex |

Table B-2. Federally Designated Critical Habitat that Occurs within the Plan Area for the Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Critical Habitat Notes |
|---|----------------|--------------|--|
| | | | <ul style="list-style-type: none"> • Unit 2a/b: Springsnail/Amphipod/Assimineia Impoundment Complex • Unit 3: Rio Hondo Complex |
| Pecos Amphipod <i>Gammarus pecos</i> | FE | SE – TX | The only critical habitat unit for this species in the Plan Area is the same for unit for diamond tryonia, Diamond Y Springs, and the unit is precluded by the covered activities as described above for diamond tryonia. |
| Pecos Assimineia Snail <i>Assimineia pecos</i> | FE | SE – NM, TX | <p>Several waterbodies designated as critical habitat for Pecos assimineia snail occur within the western portion of the Plan Area, east of Chaves, New Mexico, and north of Fort Stockton, Texas (USFWS 2011).</p> <ul style="list-style-type: none"> • Unit 1: Sago/Bitter Creek Complex. This unit is located entirely on lands owned and managed by the Service, within the Middle Tract of Bitter Lake National Wildlife Refuge, and is thereby precluded by the Covered Activities under the HCP, and would not be impacted by the issuance of an ITP for LEPC. • Unit 2a/b: Springsnail/Amphipod/Assimineia Impoundment Complex • Unit 2b: Assimineia Impoundment Complex • Unit 4: Diamond Y Springs. This unit is precluded by the covered activities as described above for diamond tryonia. |
| Roswell Springsnail <i>Pyrgulopsis roswellensis</i> | FE | SE – NM | <p>Several waterbodies designated as critical habitat for the Roswell springsnail occur within the western portion of the Plan Area, east of Chaves, New Mexico (USFWS 2011), totaling 61 ac.</p> <ul style="list-style-type: none"> • Unit 1: Sago/Bitter Creek Complex. This unit is located entirely on lands owned and managed by the Service, within the Middle Tract of Bitter Lake National Wildlife Refuge, and is thereby precluded by the Covered Activities under the HCP, and would not be impacted by the issuance of an ITP for LEPC. • Unit 2a: Springsnail/Amphipod Impoundment Complex • Unit 2a/b: Springsnail/Amphipod/Assimineia Impoundment Complex |
| Texas Hornshell ¹ <i>Popenaias popeii</i> | FE | SE – NM, TX | <p>Critical habitat for this species is found in the Plan Area, in Eddy County, New Mexico, and Terrell County, and Val Verde County, Texas (USFWS 2021a). The critical units and subunits include:</p> <ul style="list-style-type: none"> • Unit 2 - Pecos River Unit. This unit consists of 137.9 km (85.7 mi) occupied habitat in private, non-governmental organization (NGO), and federal ownership of the Pecos River in Val Verde and Terrell Counties, Texas. Live Texas hornshell were collected from this unit in 2016, and other living Texas hornshell were likely in the unit at that time. Special management may be necessary to improve water quality. |

Table B-2. Federally Designated Critical Habitat that Occurs within the Plan Area for the Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Critical Habitat Notes |
|--|----------------|--------------------|--|
| Flowering Plants | | | |
| Pecos Sunflower <i>Helianthus paradoxus</i> | FT | SE – NM ST – TX | <p>Several areas designated as critical habitat for the Pecos sunflower occur within the Plan Area (USFWS 2008b).</p> <ul style="list-style-type: none"> • Bitter Lake National Wildlife Refuge (New Mexico). This area is owned and managed by the USFWS and is thereby precluded by the Covered Activities under the HCP, and would not be impacted by the issuance of an ITP for LEPC. • Bitter Lake National Wildlife Refuge Farm (New Mexico). This area is owned and managed by the USFWS and is thereby precluded by the Covered Activities under the HCP, and would not be impacted by the issuance of an ITP for LEPC. • Lea Lake as Bottomless Lakes State Park (New Mexico). This area is owned by the State of New Mexico and managed by the New Mexico Parks and Recreation Division. This area is thereby precluded by the Covered Activities under the HCP, and would not be impacted by the issuance of an ITP for LEPC. • City of Roswell Land – wetland complex (New Mexico) • Oasis Dairy – wetland complex (New Mexico) • Dexter Cienaga – wetland complex (New Mexico) • Diamond Y Spring – wetland complex (Texas). This unit is located entirely on private lands managed by The Nature Conservancy, and is thereby precluded by the Covered Activities under the HCP, and would not be impacted by the issuance of an ITP for LEPC. |
| Wright's Marsh Thistle ¹ <i>Cirsium wrightii</i> | PT | NL | <p>One of eight units of critical habitat for this species occur in counties within the Plan Area (USFWS 2020b):</p> <ul style="list-style-type: none"> • Unit 3: Bitter Lake, Chaves County, New Mexico. Unit 3 consists of 19.0 ha (47.0 ac) in Chaves County, New Mexico, and is composed of lands under federal management, specifically the USFWS's Bitter Lake National Wildlife Refuge (NWR). This unit is managed entirely by the USFWS. This unit consists of two subunits, and special management considerations or protection may be required and could include watershed/wetland restoration efforts. <ul style="list-style-type: none"> ○ Subunit 3a: NWR Unit 5 Subunit 3a consists of 3.16 ha (7.8 ac) in Chaves County, New Mexico, within Wetland Management Unit 5 on Bitter Lake NWR. ○ Subunit 3b: NWR Unit 6 Subunit 3b consists of 15.9 ha (39.2 ac) in Chaves County, New Mexico, within Wetland Management Unit 6 on Bitter Lake NWR. |

EXPN = population is experimental non-essential in survival of the overall species, FC = candidate for federal listing, FE = federally endangered, FT = federally threatened, NL = not listed, PE = proposed endangered for federal listing, PT = proposed threatened for federal listing, SE = state endangered, ST = state threatened

HCP = Habitat Conservation Plan, ITP = Incidental Take Permit, LEPC = Lesser Prairie-Chicken (*Tympanuchus pallidicinctus*)

Table B-2. Federally Designated Critical Habitat that Occurs within the Plan Area for the Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Critical Habitat Notes |
|--|----------------|--------------|------------------------|
| Most critical habitat designations from US Fish and Wildlife Service (USFWS) 2021b. | | | |
| Sources: | | | |
| US Fish and Wildlife Service (USFWS). 1978. Determination of Critical Habitat for the Whooping Crane; Final Rule. Department of the Interior, USFWS. 43 Federal Register (FR) 94: 20938-20942. May 15, 1978. Available online: https://ecos.fws.gov/docs/federal_register/fr214.pdf | | | |
| US Fish and Wildlife Service (USFWS). 1980. Endangered and Threatened Wildlife and Plants; Listing of Leon Springs Pupfish as Endangered with Critical Habitat; Final Rule. Department of the Interior, USFWS. 45 Federal Register (FR) 160: 54678-54681. August 15, 1980. Available online: https://ecos.fws.gov/docs/federal_register/fr457.pdf | | | |
| US Fish and Wildlife Service (USFWS). 1981. Endangered and Threatened Plants; Determination of Two New Mexico Plants to be Endangered Species and Threatened Species, with Critical Habitat; Final Rule. Department of the Interior, USFWS. 46 Federal Register (FR) 12: 5703-5733. January 19, 1981. Available online: https://ecos.fws.gov/docs/federal_register/fr515.pdf | | | |
| US Fish and Wildlife Service (USFWS). 1987. Determination of Threatened Status for <i>Notropis simus pecosensis</i> (Pecos Bluntnose Shiner); Final Rule. Department of the Interior, USFWS. 52 Federal Register (FR) 34: 5295-5303. February 20, 1987. Available online: https://ecos.fws.gov/docs/federal_register/fr1228.pdf | | | |
| US Fish and Wildlife Service (USFWS). 2004. Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for the Mexican Spotted Owl; Final Rule. Department of the Interior, USFWS. 69 Federal Register (FR) 168: 53182-53289. August 31, 2004. Available online: https://www.govinfo.gov/content/pkg/FR-2004-08-31/pdf/04-19501.pdf | | | |
| US Fish and Wildlife Service (USFWS). 2005. Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for the Arkansas River Basin Population of the Arkansas River Shiner (<i>Notropis girardi</i>); Final Rule. Department of the Interior, USFWS. 70 Federal Register (FR) 197: 59808-59846. October 31, 2005. Available online: https://www.govinfo.gov/content/pkg/FR-2005-10-13/pdf/05-20048.pdf#page=2 | | | |
| US Fish and Wildlife Service (USFWS). 2008a. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Devils River Minnow; Final Rule. Department of the Interior, USFWS. 73 Federal Register (FR) 156: 46988-47026. August 12, 2008. Available online: https://www.govinfo.gov/content/pkg/FR-2008-08-12/pdf/E8-17985.pdf | | | |
| US Fish and Wildlife Service (USFWS). 2008b. Endangered and Threatened Wildlife and Plants; D Designation of Critical Habitat for <i>Helianthus paradoxus</i> (Pecos Sunflower); Final Rule. Department of the Interior, USFWS. 73 Federal Register (FR) 63: 17762-17807. April 1, 2008. Available online: https://www.govinfo.gov/content/pkg/FR-2008-04-01/pdf/E8-5811.pdf#page=2 | | | |
| US Fish and Wildlife Service (USFWS). 2010. Endangered and Threatened Wildlife and Plants; Revised Critical Habitat for the Preble's Meadow Jumping Mouse in Colorado; Final Rule. Department of the Interior, USFWS. 75 Federal Register (FR) 240: 78430-78483. December 15, 2010. Available online: https://www.govinfo.gov/content/pkg/FR-2010-12-15/pdf/2010-30571.pdf | | | |
| US Fish and Wildlife Service (USFWS). 2011. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Roswell Springsnail, Koster's Springsnail, Noel's Amphipod, and Pecos Assiminea; Final Rule. Department of the Interior, USFWS. 76 Federal Register (FR) 109: 3306-33064. June 7, 2011. Available online: https://www.govinfo.gov/content/pkg/FR-2011-06-07/pdf/2011-13227.pdf | | | |
| US Fish and Wildlife Service (USFWS). 2013. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Six West Texas Aquatic Invertebrates; Final Rule. Department of the Interior, USFWS. 78 Federal Register (FR) 131: 40970-40966. June 9, 2013 Available online: https://www.govinfo.gov/content/pkg/FR-2013-07-09/pdf/2013-16230.pdf | | | |

Table B-2. Federally Designated Critical Habitat that Occurs within the Plan Area for the Renewable (Wind and Solar) Energy, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Critical Habitat Notes |
|---|----------------|--------------|------------------------|
| US Fish and Wildlife Service (USFWS). 2014. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Sharpnose Shiner and Smalleye Shiner; Final Rule. Department of the Interior, USFWS. 79 Federal Register (FR) 149: 45242-45271. August 4, 2014. Available online: https://www.govinfo.gov/content/pkg/FR-2014-08-04/pdf/2014-17694.pdf | | | |
| US Fish and Wildlife Service (USFWS). 2016. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the New Mexico Meadow Jumping Mouse; Final Rule. Department of the Interior, USFWS. 81 Federal Register (FR) 51: 14264-14325. March 16, 2016. Available online: https://www.govinfo.gov/content/pkg/FR-2016-03-16/pdf/2016-05912.pdf | | | |
| US Fish and Wildlife Service (USFWS). 2020a. Endangered and Threatened Wildlife and Plants; Endangered Species Status for the Peppered Chub and Designation of Critical Habitat; Proposed Rule. Department of the Interior, USFWS. 85 Federal Register (FR) 231: 77108-77138. December 1, 2020. Available online: https://www.govinfo.gov/content/pkg/FR-2020-12-01/pdf/2020-25257.pdf | | | |
| US Fish and Wildlife Service (USFWS). 2020b. Endangered and Threatened Wildlife and Plants; Threatened Species Status for the Wright's Marsh Thistle (<i>Cirsium wrightii</i>) With a 4(d) Rule and Designation of Critical Habitat; Proposed Rule. Department of the Interior, USFWS. 85 Federal Register (FR) 189: 61460-61498. September 29, 2020. Available online: https://www.govinfo.gov/content/pkg/FR-2020-09-29/pdf/2020-19337.pdf | | | |
| US Fish and Wildlife Service (USFWS). 2021a. Endangered and Threatened Wildlife and Plants; Designating Texas Hornshell Critical Habitat; Proposed Rule. Department of the Interior, USFWS. 86 Federal Register (FR) 110: 30888-30909. June 10, 2021. Available online: https://www.govinfo.gov/content/pkg/FR-2021-06-10/pdf/2021-11966.pdf | | | |
| US Fish and Wildlife Service (USFWS). 2021b. Information, Planning and Consultation System (IPaC). USFWS Environmental Conservation Online System (ECOS). Accessed July 2021. Available online: http://ecos.fws.gov/ipac/ | | | |

Table B-3. State-listed Wildlife Species with the Potential to Occur within the Plan Area for the Wind, Solar, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|--|----------------|--------------|---|
| Mammals | | | |
| Black Bear ¹ <i>Ursus americanus</i> | NL | ST – TX | Forests and forested wetlands, especially mixed deciduous-coniferous forest with a dense understory. When inactive, lives in dens underground, or on ground level under fallen trees or other cover. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Black-footed Ferret ² <i>Mustela nigripes</i> | FE | SE – CO, KS | Limited to open habitat such as semi-arid grasslands, steppe, and shrub steppe. Black-footed ferrets are limited by prairie dog (<i>Cynomys</i> spp.) occurrence, as the species depends on prairie dogs for food and prairie dog burrows for shelter (USFWS 2013). |
| Canada Lynx ¹ <i>Lynx canadensis</i> | FT | SE – CO | Prefers moist, boreal forest with cold, snowy winters and a high density of snowshoe hares (<i>Lepus americanus</i>) as the main prey base (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Eastern Spotted Skunk <i>Spilogale putorius</i> | NL | ST – KS | Has a large range across central and eastern North America. Lives in riparian, woodland, grassland/herbaceous, and forested areas, especially in covered areas, but also in brushy/open areas. May live in a burrow, under brush, in a rock crevice, hollow tree, or in an otherwise protected area (NatureServe 2020). |
| Gray Wolf ^{2,3} <i>Canis lupus</i> | NL | SE – CO, TX | Mixed or conifer forests, hardwood and conifer woodlands, desert, grassland/herbaceous areas, and alpine areas with no specific habitat preferences (NatureServe 2020). |
| Least Shrew <i>Cryptotis parva</i> | NL | ST – NM | Mixed, hardwood woodlands, shrubland/chaparral areas, and grassland/herbaceous areas. Lives in dense herbaceous vegetation, brushy areas, forest edges, and salt and freshwater marshes. Nests underground, under logs, stumps, or rocks. (NatureServe 2020). |
| New Mexico Meadow Jumping Mouse* ² <i>Zapus hudsonius luteus</i> | FE | SE – NM | Riparian communities and adjacent uplands in grassland and shrub-scrub habitats with tall, emergent herbaceous forbs and sedges (USFWS 2014). |
| Pacific Marten ¹ <i>Martes caurina</i> | NL | ST – NM | Old growth deciduous, mixed, or coniferous upland and lowland forest (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Palo Duro Mouse ¹ <i>Peromyscus truei comanche</i> | NL | ST – TX | Endemic to Texas. Lives in conifer woodlands including pinyon-juniper (<i>Pinus</i> spp.- <i>Juniperus</i> spp.) woodlands, chaparral and desert scrub areas, redwood forests, riparian woodlands, and along rocky areas such as limestone cliffs. (NatureServe 2020). This species does not occur in |

Table B-3. State-listed Wildlife Species with the Potential to Occur within the Plan Area for the Wind, Solar, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|--|----------------|--------------|--|
| | | | similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Penasco Least Chipmunk** ² <i>Tamias minimus atristriatus</i> | FC | SE – NM | Subalpine Thurber's fescue (<i>Festuca thurberi</i>) meadow with deciduous shrubs or upper montane coniferous forest (Frey and McKibben 2018). |
| Preble's Meadow Jumping Mouse ² <i>Zapus hudsonius preblei</i> | FT | ST – CO | Dense, herbaceous riparian habitat and adjacent upland grasslands (USFWS 2018). |
| Spotted Bat <i>Euderma maculatum</i> | NL | ST – NM, TX | Conifer woodland, desert, shrubland/chaparral, grassland/herbaceous, cliff, bare rock/talus/scree areas. Specifically, they live in desert to montane coniferous stands, and forage in open habitat such as meadows and wetlands. Roosts occur in cracks and crevices in cliffs. Not much is known about winter habitats. (NatureServe 2020). |
| Texas Kangaroo Rat <i>Dipodomys elator</i> | NL | ST – TX | Endemic to Oklahoma and Texas. Lives in sparsely vegetated areas, including areas that have been disturbed through grazing, and along fencerows near cultivated areas and roads. In Texas, they live in areas with short, sparse grasses that have overhead woody cover. Burrows are in bare ground areas, and areas with short vegetation. Some individuals may use more than one burrow, and young are born in underground nest chambers. (NatureServe 2020). |
| White-nosed Coati <i>Nasua narica</i> | NL | ST – TX | Cropland/hedgerow, hardwood, mixed, and conifer woodlands, mixed, hardwood, and conifer forests, and shrubland/chaparral areas. The white-nosed coati lives in oak-sycamore-walnut (<i>Quercus</i> spp.- <i>Platanus</i> spp.- <i>Jugulans</i> spp.), oak-pine, and shrub-grass canyons, near water. Dens are in crevices under tree roots, in caves, mines, or hollow trees. (NatureServe 2020). |
| Birds | | | |
| Baird's Sparrow*** <i>Ammodramus bairdii</i> | NL | ST – NM | Nests in mixed-grass prairie, tallgrass prairie, wet meadows, and some disturbed habitat. In prairies, the Baird's sparrow is commonly associated with blue grama (<i>Bouteloua gracilis</i>), western wheatgrass (<i>Pascopyrum smithii</i>), little bluestem (<i>Schizachyrium scoparium</i>), prairie junegrass (<i>Koeleria macrantha</i>), needle and thread (<i>Hesperostipa comata</i>), and needleleaf sedge (<i>Carex duriuscula</i>). Tends to prefer dense, medium-tall vegetation. (NatureServe 2020). |
| Bald Eagle <i>Haliaeetus leucocephalus</i> | NL | ST – NM | Nest in forested areas near water, and avoid heavily developed areas. May feed in areas near humans, such as fish processing plants, dumps, and dams where fish are plenty. Perches in tall, mature, coniferous, or deciduous trees. In winter, bald eagles may be seen in dry, open uplands near water for fishing. (All About Birds 2020). |
| Bell's Vireo <i>Vireo bellii</i> | NL | ST – NM | Arid regions along streams or in dry arroyos and gulches, especially in shorter vegetation including dense shrub or scrub areas including brushy fields, riverine scrub, coastal chaparral, |

Table B-3. State-listed Wildlife Species with the Potential to Occur within the Plan Area for the Wind, Solar, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|--|----------------|---------------|---|
| | | | scrub oak, mottes of shrubs and trees in prairies, saltcedar (<i>Tamarisk</i> spp.) stands, and mesquite (<i>Prosopis</i> spp.) bosques. Tend to live in low vegetation. (All About Birds 2020). |
| Boreal Owl ¹ <i>Aegolius funereus</i> | NL | ST – NM | Dense coniferous or mixed forest near open grasslands (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Broad-billed Hummingbird <i>Cynanthus latirostris</i> | NL | ST – NM | Arid scrub, semi-desert, or other open arid habitats with scattered small trees and shrubs (NatureServe 2020). |
| Brown Pelican ¹ <i>Pelecanus occidentalis</i> | NL | SE – NM | Coastal waters, shallow estuarine waters, sand pits, coastal islands, and offshore sandbars (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Burrowing Owl <i>Athene cunicularia</i> | NL | SE – CO | Open grasslands (prairie, plains, savanna), sometimes vacant lots or airports. This owl spends much time on the ground or on low perches. Nests are in abandoned burrows. This species is associated with prairie dog colonies. |
| Common Black Hawk ^{†1} <i>Buteogallus anthracinus</i> | NL | ST – NM, TX | Woodlands near water for hunting, especially found in cottonwood stands (eBird 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Common Ground Dove <i>Columbina passerina</i> | NL | SE – NM | Open or shrubby areas that have tall grasses or tree stands, especially in riparian areas, open savannas, and towns (eBird 2020). |
| Eastern Black Rail ^{††2,3} <i>Laterallus jamaicensis</i> spp. <i>jamaicensis</i> | FT | Proposed – TX | Wetland-dependent species inhabiting palustrine and estuarine wetlands, such as wet grasslands and emergent marshes. Wetlands can be of varying salinity, but the species has a preference for emergent wetlands with dense, persistent, overhead herbaceous cover (USFWS 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Golden-cheeked Warbler ^{1,2} <i>Dendroica chrysoparia</i> | FE | SE – TX | Mature, closed canopy Ashe juniper (<i>Juniperus ashei</i>) woodlands (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Gray Hawk ¹ <i>Buteo plagiatus</i> | NL | ST – TX | Shrubby riparian woodland, gallery forest, tropical deciduous forest, and tropical lowland evergreen forest edge; usually occurs alone (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |

Table B-3. State-listed Wildlife Species with the Potential to Occur within the Plan Area for the Wind, Solar, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|--|----------------|---------------------|--|
| Gray Vireo <i>Vireo vicinior</i> | NL | ST – NM | Desert, hardwood, conifer, and mixed woodland, and shrubland/chaparral areas, specifically in semi-arid, shrubby areas. Habitat when breeding is similar to during migration and winter. (Nature Serve 2020). |
| Interior Least Tern ^{†††1} <i>Sterna antillarum athalassos</i> | NL | SE – CO, KS, NM, TX | Barren to sparsely vegetated riverine sandbars, sand and gravel pits, lake and reservoir shorelines (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Lucifer Hummingbird <i>Calothorax lucifer</i> | NL | ST – NM | Open, arid landscapes including shrub/scrub and woodland edges (NatureServe 2020). |
| Mexican Spotted Owl ^{1,2} <i>Strix occidentalis lucida</i> | FT | ST – CO, TX | Spotted owls are residents of old-growth or mature forests that possess complex structural components (uneven aged stands, high canopy closure, multi-storied levels, high tree density; NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Neotropic Cormorant ¹ <i>Phalacrocorax brasilianus</i> | NL | ST – NM | Rivers, lakes, marshes, and coastal areas (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Northern Aplomado Falcon ^{‡2} <i>Falco femoralis septentrionalis</i> | FE, EXPN | SE – NM | Grassy plains and valleys including savannas, desert grasslands and old fields (NatureServe 2020). |
| Northern Beardless-tyrannulet <i>Camptostoma imberbe</i> | NL | SE – NM | Arid scrub, thickets, mesquite, forest edge, and open riparian woodland, and often near streams in sycamore, mesquite, and cottonwood (<i>Populus</i> spp.) groves This species nests in trees, often near water in globular clumps among mistletoe (<i>Phoradendron</i> spp.), and may nest at base of palmetto (<i>Sabal</i> spp.) fans (NatureServe 2020). |
| Peregrine Falcon ^{††} <i>Falco peregrinus anatum</i> | NL | ST – NM, TX | Tundra, moorlands, steppe, and seacoasts, where there are cliffs, mountains, open forested areas, and areas where humans congregate. Occurs near farmlands, marshes, lakeshores, river mouths, tidal flats, dunes, beaches, broad river valleys, cities, and airports. Nests are typically on rocky cliffs with overhanging shelters. (NatureServe 2020). |
| Piping Plover ^{†††1,2} <i>Charadrius melodus</i> | FT | ST – CO, KS, NM, TX | Shorelines around small alkaline lakes, river islands and adjacent sand pits, reservoir beaches, beaches surrounding large lakes, and pond shorelines (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |

Table B-3. State-listed Wildlife Species with the Potential to Occur within the Plan Area for the Wind, Solar, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|--|----------------|-----------------|--|
| Reddish Egret ¹ <i>Egretta rufescens</i> | NL | ST – TX | Found near coastlines on shallow saltmarshes and mudflats (eBird 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Red Knot ¹ <i>Calidris canutus rufa</i> | FT | ST – TX | Breeding habitats are elevated and sparsely vegetated ridges or slopes. They are often adjacent to wetlands and lake edges for feeding. Wintering and migration habitats are often muddy or sandy coastal areas, such as the mouths of bays and estuaries, and tidal flats (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Snowy Plover ¹ <i>Charadrius alexandrinus</i> | NL | ST – KS | Along the coast, on sandy beaches, dry mudflats, and at salt ponds. Sometimes inland, but often near water. (eBird 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Southwestern Willow Flycatcher ² <i>Empidonax traillii extimus</i> | FE | SE – CO, NM, TX | Dense, forested riparian habitats are required for nesting; however, migration and foraging habitat includes old field, shrubland/chaparral, and mixed hardwood forest (NatureServe 2020). |
| Thick-billed Kingbird <i>Tyrannus crassirostris</i> | NL | SE – NM | Arid scrub/shrub, savannah, riparian woodland, and open habitats with scattered trees (NatureServe 2020). |
| Tropical Parula ¹ <i>Parula pitaiayumi</i> | NL | ST – TX | In Texas, lives in deciduous riparian forests dominated by cedar elm (<i>Ulmus crassifolia</i>), sugar hackberry (<i>Celtis laevigata</i>), Texas ebony (<i>Ebenopsis ebano</i>), and Mexican ash (<i>Fraxinus berlandieriana</i>), usually near lagoons or dry river beds. The tropical parula is especially found at the tops of trees. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Varied Bunting <i>Passerina versicolor</i> | NL | ST – NM | Open and arid thorn brush, thickets, and scrub habitats (NatureServe 2020). |
| White-eared Hummingbird <i>Basilinna leucotis</i> | NL | ST – NM | Open scrub/shrub habitat, pine woods, pine-oak forests, forest edge, and fir forest (NatureServe 2020). |
| White-faced Ibis ¹ <i>Plegadis chihi</i> | NL | ST – TX | Freshwater including marshes, swamps, ponds, and rivers; nests are in marshes, low trees, or on the ground in vegetation (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |

Table B-3. State-listed Wildlife Species with the Potential to Occur within the Plan Area for the Wind, Solar, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|--|----------------|---------------------------|--|
| White-tailed Ptarmigan ¹ <i>Lagopus leucura</i> | NL | SE – NM | Alpine tundra with rocky areas and sparse vegetation (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Whooping Crane ² <i>Grus americana</i> | FE, EXPN | SE – CO, KS, NM, TX | Coastal marshes and estuaries, inland marshes, lakes, ponds, riparian areas, wet meadows and rivers, and agricultural fields (NatureServe 2020). |
| Zone-tailed Hawk <i>Buteo albonotatus</i> | NL | ST – TX | Hunts in desert scrub and grasslands and uses riparian areas with cottonwood and willow trees for nesting and hunting. May live in arid foothills and rocky canyons and cliffs, and forage up to 7,600 feet in pine forests. (All About Birds 2020) |
| Amphibians | | | |
| Green Toad <i>Anaxyrus debilis</i> | NL | ST – KS | May live in a variety of aquatic and terrestrial habitats. Terrestrial habitat may include arid and semiarid plains, valleys, and foothills in grassland and desert shrublands, and may burrow in soil and stay under rocks when inactive. Eggs and larvae are in shallow water of temporary ponds, rain pools, and pools along intermittent streams. (NatureServe 2020) |
| Sacramento Mountain Salamander ¹ <i>Aneides hardii</i> | NL | ST – NM | Douglas-fir, Engelmann spruce, and white fir forests on north- and east-facing slopes (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Strecker's Chorus Frog <i>Pseudacris streckeri</i> | NL | ST – KS | Mainly lives in terrestrial habitats including moist woods, sand prairies, ravines, along streams and swamps, near ponds, and cultivated areas. When inactive, burrows underground. Eggs and larvae grow in flooded fields, ditches, sloughs, small ponds, and other temporary waterbodies. (NatureServe 2020) |
| Western Narrow-mouthed Toad <i>Gastrophryne olivacea</i> | NL | SE – NM | Arid and semi-arid lowlands including mesquite and shrublands, including grasslands, rocky wooded hills, marsh edges, near springs, rain pools, river floodplains, and cultivated fields. When inactive, hides in rotten logs, stumps, or borrows. Eggs and larvae develop in temporary pools. (NatureServe 2020). |
| Reptiles | | | |
| Arid Land Ribbonsnake ¹ <i>Thamnophis proximus</i> | NL | ST – NM | Riparian habitats, lakes, rivers, wetlands, and streams (New Mexico Natural Heritage Program 2017). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |

Table B-3. State-listed Wildlife Species with the Potential to Occur within the Plan Area for the Wind, Solar, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|--|----------------|--------------|---|
| Checkered Garter Snake <i>Thamnophis marcianus</i> | NL | ST – KS | Lives in a variety of aquatic or terrestrial lowland habitats. In northern Texas, occurs near ponds, springs, streams, rivers, marshes, swamps, flooded areas, and irrigation ditches. In southern Texas, occurs in grasslands, deserts, thornbrush savanna, backyards, and gardens. In the southern range, habitat included tropical wet, moist, and dry forest and pine-palmetto savanna. (NatureServe 2020). |
| Dunes Sagebrush Lizard ¹ <i>Sceloporus arenicolus</i> | NL | SE – NM | Occurs in New Mexico and Texas, near active and semi-stabilized sand dunes, lives in burrows or under leaf debris (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Gray-banded Kingsnake <i>Lampropeltis alterna</i> | NL | SE – NM | Lives in New Mexico and Texas, in riparian, bare rock/talus/scree, desert, and shrubland/chaparral habitats. Habitat is usually dry and rocky, with typical Chihuahuan Desert plants including acacia, desert willow, creosotebush, mesquite, ocotillo, and opuntia. During the day, the snake is in crevices or under cover. (NatureServe 2020). |
| Mottled Rock Rattlesnake <i>Crotalus lepidus</i> | NL | ST – NM | In New Mexico, lives in arid and semi-arid rocky mountainous areas, especially those including pine-oak, oak-juniper, pinyon pine, ponderosa pine, and agave. Also lives in mesquite grasslands and rocky desert flats and canyons. (IUCN 2020a). |
| New Mexico Threadsnake <i>Rena dissecta</i> | NL | ST – KS | Terrestrial habitats including forest/woodland, mixed, hardwood, and conifer woodland, desert, and grassland/herbaceous areas. Specifically, habitat includes prairies, prairie canyons, rocky and sandy deserts, and pinyon-juniper and juniper-oak woodland. The New Mexico threadsnake lives in damp, loose soil, and may be found under rocks, logs, and debris. They lay eggs in underground chambers, in hollows of decaying trees, or in rocky fissures. (NatureServe 2020). |
| Plain-bellied Water Snake ¹ <i>Nerodia erythrogaster</i> | NL | SE – NM | Aquatic and wetland habitats with permanent or semi-permanent water (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Texas Horned Lizard <i>Phrynosoma cornutum</i> | NL | ST – TX | Lives in a variety of open areas in arid and semiarid regions with sparse vegetation, such as deserts, prairies, playa edges, bajadas, dunes, and foothills, in areas that contain vegetation such as grass, cactus, scattered brush, and shrubby trees. Soil can be sandy to rocky. When inactive, may burrow underground, in rodent burrows, or stay under rocks. The Texas horned lizard lays eggs in soil or under rocks. (NatureServe 2020). |
| Texas Tortoise <i>Gopherus berlandieri</i> | NL | ST – TX | Lives in Texas in savanna, grassland/herbaceous, shrubland/chaparral, and hardwood habitats, specifically in open scrub woods, arid brush, grass-cactus areas, and areas with sandy well- |

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| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|---|----------------|---------------------------|---|
| | | | drained soil. When inactive, lives in shallow depressions at the base of bushes or cactuses, but may also create an underground burrow or hide under objects. The Texas tortoise lays eggs in nests dug in soil near or under bushes, and may use the same location for multiple years. (NatureServe 2020). |
| Trans-Pecos Black-headed Snake <i>Tantilla cucullata</i> | NL | ST – TX | Endemic to Texas. Lives in grassland/herbaceous, bare rock/talus/scree, desert, and mixed woodland habitat, specifically steep-sides rocky canyons with pinyon pine, oak, and juniper, hilly grasslands with juniper and cholla, streamside woodland areas vegetated by creosote-bush, acacia, yucca, and grasses, and low hills of arid grasslands vegetated by creosote-bush, yucca, ocotillo, and agave. The trans-Pecos black-headed snake usually lives under cover, underground, or in crevices, and may move on the ground surface during summer in moist weather. (NatureServe 2020). |
| Western River Cooter ¹ <i>Pseudemys gorzugi</i> | NL | ST – NM | Lives in New Mexico and Texas in rivers, permanent tributary streams, large and deep stream pools with clear water and sandy or rocky bottoms. The water may or may not contain aquatic vegetation. The western river cooter basks on logs, in overhanging vegetation, or muddy banks, near the water. Eggs are buried in soil near the water. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Fish | | | |
| Arkansas Darter ¹ <i>Etheostoma cragini</i> | NL | ST – CO | Spring-fed headwaters and cool, shallow, slow-moving creeks, especially those with herbaceous aquatic vegetation. The Arkansas darter lays eggs in gravel bottoms. (NatureServe 2020) This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Arkansas River Shiner ^{1,2} <i>Notropis girardi</i> | FT | SE – KS, NM ST – TX | Wide, shallow, unshaded creeks and small to large rivers, especially those with silt and sand substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Bigscale Logperch ¹ <i>Percina macrolepida</i> | NL | ST – NM | Small to medium rivers with moderate to fast-flowing waters (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Blue Sucker ¹ <i>Cycoreptus elongatus</i> | NL | SE – NM ST - TX | Large rivers and parts of major tributaries, channels, and flowing pools with moderate water flow. Especially occurs in water with cobble and bedrock substrate. (NatureServe 2020) |

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| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|--|----------------|--------------|---|
| | | | This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Brassy Minnow ¹ <i>Hybognathus hankinsoni</i> | NL | ST – CO | Small, clear creeks and small rivers with sand, gravel, or mud substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Chub Shiner ¹ <i>Notropis potteri</i> | NL | ST – TX | Small to large runs and rivers with sand, gravel, or silt substrate. The chub shiner is a bottom dweller. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Comanche Springs Pupfish ^{1,2} <i>Cyprinodon elegans</i> | FE | SE – TX | Freshwater springs, marshes, and canals with mud substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Common Shiner ¹ <i>Luxilus cornutus</i> | NL | ST – CO | Creeks, small to medium rivers, pools, lakes, and reservoirs with moderate to fast-flowing water and gravel to rubble substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Conchos Pupfish ¹ <i>Cyprinodon eximius</i> | NL | ST – TX | Sloughs, backwaters, marshes, margins of large streams, and creek mouths tributary to large rivers (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Devils River Minnow ^{1,2} <i>Dionda diaboli</i> | FT | ST – TX | Endemic to Texas. Fast-flowing, clear, spring-fed water with gravel substrate. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Flathead Chub ¹ <i>Platygobio gracilis</i> | NL | ST – KS | Main channels of small to large rivers, shallow to deep water with a moderate to fast current and mud, rock, or sand substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Gray Redhorse ¹ <i>Moxostoma congestum</i> | NL | SE – NM | Warm and clear small to medium rivers with slow-moving water or lakes and rock, gravel, sand, or silt substrate. Typically avoids areas with dense vegetation. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |

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| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|---|----------------|--------------|--|
| Greenback Cutthroat Trout ¹ <i>Oncorhynchus clarkii stomias</i> | FT | ST – CO | Mountain streams with fast-flowing water and lakes with overhanging banks or vegetation cover (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Greenthroat Darter ¹ <i>Etheostoma lepidum</i> | NL | ST – NM | Gravel and rubble riffles of headwaters, creeks, and small rivers, and swift-flowing springs. Especially in waters with vegetation. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Headwater Catfish ¹ <i>Ictalurus lupus</i> | NL | ST – TX | Riffles, runs, and pools of creeks, small rivers, and streams, with clear, temperate waters (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Lake Chub <i>Couesius plumbeus</i> | NL | SE – CO | Occurs in varied habitats in both standing and flowing water, and large and small bodies of water. Most common in gravel-bottomed pools and runs of streams and along rocky lake margins. Spawning occurs in river shallows, along rocky shores, in shoals of lakes (NatureServe 2020). |
| Leon Springs Pupfish ^{1,2} <i>Cyprinodon bovinus</i> | FE | SE – TX | Endemic to Texas. Shallow saline springs, pools, and outflow springs. Common in outflows from Diamond Y Spring. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Mexican Blindcat (catfish) ^{1,2} <i>Prietella phreatophila</i> | FE | SE – TX | Subterranean waters in wells, mine shafts, and caves with silt substrate (IUCN 2020b). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Mexican Tetra ¹ <i>Astyanax mexicanus</i> | NL | ST – NM | Streams and rivers, especially in shallow water with overhanging bank vegetation as cover and rock or sand substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Northern Redbelly Dace ¹ <i>Phoxinus eos</i> | NL | SE – CO | Boggy lakes, ponds, and pools of headwaters and creeks, especially with aquatic vegetation (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |

Table B-3. State-listed Wildlife Species with the Potential to Occur within the Plan Area for the Wind, Solar, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|---|----------------|------------------------|---|
| Pallid Sturgeon ^{1,2} <i>Scaphirhynchus albus</i> | FE | SE – KS | Turbid riverine waters, strong currents with gravel or sand substrate. Sometimes occurs in reservoirs. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Pecos Bluntnose Shiner ^{1,2} <i>Notropis simus pecosensis</i> | FT | SE – NM | Main river channels with large flows and sand, gravel, or silt substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Pecos Gambusia ^{1,2} <i>Gambusia nobilis</i> | FE | SE – NM, TX | Clear spring waters high in calcium carbonate, waters with fairly constant temperature and vegetation (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Pecos Pupfish ¹ <i>Cyprinodon pecosensis</i> | NL | ST – NM, TX | Springs, gypsum sinkholes, and desert streams with gravel substrate and highly saline habitats (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Peppered Chub ¹ <i>Macrhybopsis tetranema</i> | PE | SE – KS ST – NM, TX | Large, permanently flowing streams with clean, fine sand substrates (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Plains Minnow ¹ <i>Hybognathus placitus</i> | NL | SE – CO ST – KS | Shallow runs, pools of creeks, and small to medium sized rivers with slow water and sand or silt substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Prairie Chub ¹ <i>Macrhybopsis australis</i> | NL | ST – TX | Creeks and small to large rivers with sand and gravel substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Proserpine Shiner ¹ <i>Cyprinella proserpina</i> | NL | ST – TX | Creek pools, streams, and small rivers with rock, sand, or gravel substrate and aquatic vegetation (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Red River Pupfish ¹ <i>Cyprinodon rubrofluviatilis</i> | NL | ST – TX | Pools and runs of headwaters, creeks, and small to medium rivers with shallow water and sand substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, |

Table B-3. State-listed Wildlife Species with the Potential to Occur within the Plan Area for the Wind, Solar, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|---|----------------|--------------|---|
| | | | shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Rio Grande Darter ¹ <i>Etheostoma grahami</i> | NL | ST – TX | Pools of creeks, small rivers, and rocky riffles, common in the Rio Grande downstream for the Amistad Reservoir with cobble substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Rio Grande Shiner ¹ <i>Notropis jemezans</i> | NL | ST – TX | Runs and flowing pools of rivers and creeks with rubble, gravel, sand, or silt substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Rio Grande Silvery Minnow ^{1,2} <i>Hybognathus amarus</i> | EXPN | SE – NM, TX | Pools and backwaters of creeks and small to large rivers with slow to moderate flowing waters associated with the Rio Grande River. Typically occurs in shallow water with silt substrate. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Roundnose Minnow ¹ <i>Dionda episcopa</i> | NL | ST – TX | Rocky pools of headwaters, creeks, and small rivers, commonly associated with filamentous algae (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Sharpnose Shiner ^{1,2} <i>Notropis oxyrhynchus</i> | FE | SE – TX | Endemic to Texas. Medium to large rivers or pools with sand, gravel, or mud substrate and shallow water. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Shovelnose Sturgeon ¹ <i>Scaphirhynchus platyrhynchus</i> | NL | ST – TX | Large river channels with strong current and sand, gravel, or mud substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Silver Chub ¹ <i>Macrhybopsis storeriana</i> | NL | SE – KS | Pools and backwaters of small to large rivers and lakes and sand, silt, or gravel substrate. Especially in shallow waters. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |

Table B-3. State-listed Wildlife Species with the Potential to Occur within the Plan Area for the Wind, Solar, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|---|----------------|--------------------|--|
| Smalleye Shiner ^{1,2} <i>Notropis buccula</i> | FE | SE – TX | Endemic to Texas. Small to medium river channels with shallow water and sand substrate. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Southern Redbelly Dace ^{§1} <i>Phoxinus erythrogaster</i> | NL | SE – CO, NM | Headwaters and creeks with clear water and gravel, rubble, or sand substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Speckled Chub ¹ <i>Macrhybopsis aestivalis</i> | NL | ST – TX | Small to large river runs with sand to gravel substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Spotfin Gambusia ¹ <i>Gambusia krumholzi</i> | NL | ST – TX | Densely vegetated margins of quiet creek pools associated with areas of swift flowing water (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Suckermouth Minnow ¹ <i>Phenacobius mirabilis</i> | NL | SE – CO ST – NM | Runs and riffles of creeks and small to large rivers with sand, gravel, or boulder substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Tamaulipas Shiner ¹ <i>Notropis braytoni</i> | NL | ST – TX | River or creek channels with rubble, gravel, sand, and silt substrate and little to no vegetation (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Topeka Shiner ^{1,2} <i>Notropis topeka</i> | FE | ST – KS | Open, permanent pools of small, clear headwaters and creeks (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| White Sands Pupfish ¹ <i>Cyprinodon tularosa</i> | NL | ST – NM | Endemic to New Mexico. Streams, marshes, and springheads with clear and shallow waters with various substrate such as gravel, sand, silt, or mud. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Invertebrates | | | |

Table B-3. State-listed Wildlife Species with the Potential to Occur within the Plan Area for the Wind, Solar, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|---|----------------|--------------|--|
| American Burying Beetle ^{2,3} <i>Nicrophorus americanus</i> | FT, EXPN | SE – KS | Occurs in a variety of habitats, such as grassland, shrubland, and hardwood forests. May occur in areas with mowed or grazed fields to dense shrub areas. Adults typically live aboveground, but may overwinter in soil and lay eggs in soil next to buried carcasses. (NatureServe 2020). |
| Carolinae Tryonia ¹ <i>Tryonia oasiensis</i> | NL | ST – TX | Endemic to silt-substrate ponds in the Pecos River Basin area and parts of the Chihuahuan Desert (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Caroline's Springs Pyrg ¹ <i>Pyrgulopsis ignota</i> | NL | ST – TX | Endemic to Texas. Lives in lakes, ponds, and streams, and especially found on cobbles in ponds. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Crowned Cave Snail ¹ <i>Phreatodrobia coroneae</i> | NL | ST – TX | Intermittent streams and ponds, sometimes in subterranean waters (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Cylindrical Papershell Mussel ¹ <i>Anodontoides ferussacianus</i> | NL | SE – KS | Lives in shallow water, near shores. May live in streams, creeks, or lakes, on sandy gravel. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Diamond Tryonia ^{1,2} <i>Pseudotryonia adamantina</i> | FE | SE – TX | Endemic to Texas. Lives near small springs, seeps, and marshes, and flowing water. Especially near cattail and sedge-dominated wetlands. Typically lives on muddy substrates. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Diminutive Amphipod ^{1,2} <i>Gammarus hyalleloides</i> | FE | SE – TX | Endemic to Texas. Lives on rocky or gravel substrate in warm, mineralized, flowing spring water originating from caves. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Gonzales Tryonia ^{1,2} <i>Tryonia circumstriata</i> | FE | SE – TX | Endemic to Texas. Lives in springs, seeps, and marshes near sedges and cattails, especially on mud substrates. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |

Table B-3. State-listed Wildlife Species with the Potential to Occur within the Plan Area for the Wind, Solar, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|--|----------------|--------------|--|
| Koster's Springsnail ^{1,2} <i>Juturnia kosteri</i> | FE | SE – NM | Endemic to New Mexico. Lives in springs with slow to moderate flowing water, typically on silt, sand, or gravel compacted substrate. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Lake Fingernailclam ¹ <i>Musculium lacustre</i> | NL | ST – NM | Lives in a variety of waters: lakes, ponds, ditches, swamps, marshes, puddles, rivers, and creeks, especially those with muddy substrate, but sometimes on sand or gravel substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Long Fingernailclam ¹ <i>Musculium transversum</i> | NL | ST – NM | Lakes and rivers, no substrate preference – may occur on sand, mud, or rocky substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Mexican Fawnsfoot ¹ <i>Truncilla cognata</i> | NL | ST – TX | Lives in Texas. Habitat preferences are mostly unknown. The Mexican fawnsfoot may prefer streams and rivers with sand or gravel substrate. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Noel's Amphipod ^{1,2} <i>Gammarus desperatus</i> | FE | SE – NM | Endemic to New Mexico. Lives in warm, mineralized water. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Ovate Vertigo Snail <i>Vertigo ovata</i> | NL | ST – NM | Grass litter and on cattails near swamps, sedge meadows, wet and mesic prairie, meadows, riverbanks, lakeshores, roadside ditches, wooded wetlands, upland forest, grassland, and bedrock outcrops (NatureServe 2020). |
| Paper Pondshell ¹ <i>Utterbackia imbecillis</i> | NL | SE – NM | Mud or sandy substrates of reservoirs, especially found in artificial waters (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Pecos Amphipod ^{1,2} <i>Gammarus pecos</i> | FE | SE – TX | Springs or brooks near the Pecos River (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Pecos Assiminea Snail ^{1,2} <i>Assiminea pecos</i> | FE | SE – NM, TX | Aquifer-fed spring systems in desert grasslands of the Pecos River basin. Typically found in moist areas near flowing water, under vegetation such as grasses or sedges. (NatureServe 2020) |

Table B-3. State-listed Wildlife Species with the Potential to Occur within the Plan Area for the Wind, Solar, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|---|----------------|--------------|--|
| | | | This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Pecos Springsnail ¹ <i>Pyrgulopsis pecosensis</i> | NL | ST – NM | Endemic to New Mexico. Lives on pebbles, silt, and sometimes on vegetation underwater. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Phantom Springsnail ^{1,2} <i>Pyrgulopsis texana</i> | FE | SE – TX | Endemic to Texas. Lives in mineralized spring water near caves, especially in shallow water. Lives near the sources of three springs and is found on hard substrates. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Phantom Tryonia ^{1,2} <i>Tryonia cheatumi</i> | FE | SE – TX | Endemic to Texas. Lives in springs, namely the Phantom Lake Spring and associated waters, especially on mud or gravel substrates. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Roswell Springsnail ^{1,2} <i>Pyrgulopsis roswellensis</i> | FE | SE – NM | Endemic to New Mexico. Lives on pebbles and silt, and sometimes on mud or vegetation underwater. Typically in spring heads and runs with slow to moderate flowing water. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Salina Mucket ¹ <i>Potamilus metnecktayi</i> | NL | ST – TX | Presumed extinct in New Mexico, but still assumed to live in Texas although no living specimens have been found in more than 20 years. Habitat includes small to moderate sized streams and rivers. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Scott Optioservus Riffle Beetle ¹ <i>Optioservus phaeus</i> | NL | SE – KS | Rock substrates near roots, and in riffle areas with flowing water in the form of clear, cool streams with rocky substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Star Gyro ¹ <i>Gyraulus crista</i> | NL | ST – NM | Intermittent or permanent streams and ponds, with standing or flowing water (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |

Table B-3. State-listed Wildlife Species with the Potential to Occur within the Plan Area for the Wind, Solar, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|---|----------------|--------------|---|
| Swamp Fingernailclam ¹ <i>Musculium partumeium</i> | NL | ST – NM | Ponds, swamps, small lakes, and river eddies in mud substrates and organic detritus; sometimes found near rooted vegetation. Typically in shallow water. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Texas Hornshell ^{1,2,3} <i>Popenaias popeii</i> | FE | SE – NM, TX | In water at riverbanks, crevices and shelves near boulders, especially in sand and cobble substrate (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Texas Pimpleback ^{1,2,3} <i>Quadrula petrina</i> | FC | ST – TX | Endemic to Texas. Lives in shallow slow to moderate flowing water, in mud, sand, gravel, and cobble substrate. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Wrinkled Marshsnail ¹ <i>Stagnicola caperata</i> | NL | SE – NM | Ditches, shallow or vernal pools, spring-flooded margins of permanent water areas, and sometimes in lakes, rivers, and swamps (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Flowering Plants | | | |
| Allred's Flax <i>Linum allredii</i> | NL | SE – NM | Exposed hillsides and scarps of gypsum in the Chihuahuan Desert, 1,280 meters (m; 3,900 feet [ft]) in elevation (Natural Heritage New Mexico [NHNM] 1999, New Mexico State Forestry Division [NMSFD] 2021) |
| Bunched Cory Cactus ^{§§2} <i>Coryphantha ramillosa</i> | FT | ST – TX | Chihuahuan Desert succulent scrub on rocky slopes, ledges, and gravelly limestone flats (NatureServe 2020). |
| Dune Umbrella-sedge ¹ <i>Cyperus onerosus</i> | NL | ST – TX | Endemic to Texas. Moist to wet sand near sand dunes. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Goodding's Onion ¹ <i>Allium gooddingi</i> | NL | SE – NM | Moist, shaded canyon bottoms in conifer forests, with aspen, and open meadows (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Great Plains Lady's Tresses Orchid <i>Spiranthes magnicamporum</i> | NL | SE – NM | Habitat may vary. Occurs in dry or wet prairies, riverbanks, and floodplains. (NatureServe 2020). |

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|---|----------------|--------------------|--|
| Gypsum Wild-buckwheat ² <i>Eriogonum gypsophilum</i> | FT | SE – NM | Semi-arid open grassland dominated by grama species and creosote bush (<i>Larrea tridentata</i>) communities (NatureServe 2020). |
| Hess' Fleabane <i>Erigeron hessii</i> | NL | SE – NM | Narrow endemic found only in the Mogollon Mountains in Catron County New Mexico. Found in high-elevation (2,900-3,100 m [9,500-10,200 ft]) subalpine conifer forest to subalpine grassland (NHNM 1999, NatureServe 2020, NMSFD 2021). |
| Holy Ghost Ipomopsis ^{1,2} <i>Ipomopsis sancti-spiritus</i> | FE | SE – NM | Forest edge habitat and along roadsides within Santa Fe National Forest (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Kuenzler's Hedgehog Cactus ² <i>Echinocereus fendleri</i> var. <i>kuenzleri</i> | FT | SE – NM | Grassland and herbaceous habitat on the fringes of pinyon-juniper savannah (NatureServe 2020). |
| Lee's Pincushion Cactus ^{1,2} <i>Escobaria sneedii</i> var. <i>leei</i> | FT | SE – NM | Restricted to Tansil Limestone Formation on north-facing ledges, slopes, and ridgetops; known populations within Carlsbad Caverns National Park (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Leoncita False Foxglove ¹ <i>Agalinis calycina</i> | NL | ST – TX | Marshy ground around springs and other sources of water (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Lloyd's Mariposa Cactus <i>Echinomastus mariposensis</i> | FT | ST – TX | Arid desert and shrubland/chaparral habitats with gravelly, limestone-derived soils on gentle slopes (NatureServe 2020). |
| Parish's Alkali Grass <i>Puccinellia parishii</i> | NL | SE – NM | Range-wide, this species is found at alkaline springs, seeps, and seasonally wet areas occurring at the heads of drainages or on gentle slopes at 800-2,200 m (2,600-7,200 ft; NHNM 1999, NMSFD 2021) |
| Pecos Sunflower ^{1,2} <i>Helianthus paradoxus</i> | FT | SE – NM ST – TX | Requires permanent wetlands and typically lives in wet soils, especially common in the Pecos River basin. Grows in areas dominated by saltgrass and other herbaceous species. (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Scheer's Pincushion Cactus <i>Coryphantha scheeri</i> spp. <i>scheeri</i> | NL | SE – NM | Desert grassland and Chihuahuan desert scrub, in gravelly or silty soils (NatureServe 2020). |

Table B-3. State-listed Wildlife Species with the Potential to Occur within the Plan Area for the Wind, Solar, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|--|----------------|--------------|---|
| Shining Crested Coralroot ¹ <i>Hexalectris nitida</i> | NL | SE – NM | Shaded canyons, especially among rocks (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Sneed Pincushion Cactus ² <i>Escobaria sneedii</i> var. <i>sneedii</i> | FE | SE – TX | Desert and desert grassland habitats with limestone ledges and slopes dominated by creosote bush, yucca species, and grama species (NatureServe 2020). |
| Texas Poppy-mallow ² <i>Callirhoe scabriuscula</i> | FE | SE – TX | Grasslands, shin oak shrublands, and mesquite woodlands with deep, loose sandy soil from alluvial deposits of the Colorado River (NatureServe 2020). |
| Texas Snowbells ^{1,2} <i>Styrax platanifolius</i> spp. <i>texanus</i> | FE | SE – TX | Limestone cliffs, bluffs, and ledges within riparian habitat and surrounded by sycamore-little walnut, oak, or oak-juniper woodlands (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Tharp's Bluestar <i>Amsonia tharpaii</i> | NL | SE – NM | Shortgrass grasslands or shrublands, in soils that are shallow, well-drained, and limestone-based (NatureServe 2020). |
| Tobusch Fishhook Cactus ² <i>Sclerocactus brevihamatus</i> ssp. <i>tobuschii</i> | FT | SE – TX | Riparian areas and adjacent shortgrass grasslands and semi-desert shrublands interspersed with oak-juniper woodlands (NatureServe 2020). |
| Western Prairie Fringed Orchid ¹ <i>Platanthera praeclara</i> | FT | ST – CO | Moist to wet calcareous tallgrass prairies and sedge meadows with perennial flooding (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Wood Lily <i>Lilium philadelphicum</i> var. <i>andinum</i> | NL | SE – NM | Prairies and woodlands with open areas (Prairie Moon Nursery 2020). |
| Wright's Marsh Thistle ^{1,2} <i>Cirsium wrightii</i> | PT | SE – NM | Marshy wetlands near springs and requires saturated soils and surface/subsurface water flows (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |
| Yellow Lady's Slipper ¹ <i>Cypripedium parviflorum</i> var. <i>pubescens</i> | NL | SE – NM | Boggy or swampy areas, damp woods, near rivers, canal banks, wet meadows, and rocky wooded hillsides, in sandy loamy or loamy soils (NatureServe 2020). This species does not occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands, and therefore is unlikely to be impacted by the issuance of an ITP for LEPC. |

Table B-3. State-listed Wildlife Species with the Potential to Occur within the Plan Area for the Wind, Solar, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|---|----------------|--------------|---|
| Zuni Fleabane <i>Erigeron rhizomatus</i> | NL | SE – NM | Clay hillsides with Chinle or Baca formation shale soils and that are nearly barren; most often found north or east-facing slopes in high-elevation (2,200-2,400 m [7,300-8,000 ft])open pinyon-juniper (<i>Pinus</i> spp.- <i>Juniperus</i> spp.) woodlands (NHNM 1999, NMSFD 2021). |

EXPN = population is experimental non-essential in survival of the overall species, FC = candidate for federal listing, FE = federally endangered, FT = federally threatened, NL = not listed, PE = proposed endangered for federal listing, PT = proposed threatened for federal listing, SE = state endangered, ST = state threatened

ITP = Incidental Take Permit, LEPC = Lesser Prairie-Chicken (*Tympanuchus pallidicinctus*)

¹ State-listed species with the potential to occur within the Plan Area but not expected to occur in similar habitat as the LEPC, shrub-scrub habitat, or cultivated croplands are unlikely to be impacted by the issuance of an ITP for LEPC and have been dismissed from detailed analysis.

² State-listed species that are also federally listed are included here if identified through our state-level threatened and endangered species analysis as potentially occurring within the Plan Area.

³ Identified through our state-level threatened and endangered species analysis as potentially occurring within the Plan Area but not identified through the Information for Planning and Consultation Tool (IPaC; US Fish and Wildlife Service [USFWS] 2021).

* The New Mexico meadow jumping mouse (*Zapus hudsonius luteus*) is synonymous with the New Mexico Department of Game and Fish (NMDGF) meadow jumping mouse (*Zapus luteus luteus*; see US Fish and Wildlife Service 2020).

** The New Mexico Department of Game and Fish (NMDGF) lists the Penasco least chipmunk as *Neotamias minimus atristriatus*, which is synonymous with *Tamias minimus atristriatus* (NatureServe 2020).

*** The New Mexico Department of Game and Fish (NMDGF) lists the Baird's sparrow as *Centronyx bairdii*, which is synonymous with *Ammodramus bairdii* (NatureServe 2020).

† The New Mexico Department of Game and Fish (NMDGF) lists the subspecies of the common black hawk (*Buteogallus anthracinus anthracinus*). For the purposes of analysis, as other subspecies are not found in the Plan Area (NatureServe 2020), the parent species listed by the Texas Parks and Wildlife Department (TPWD), and the subspecies listed by NMDGF are considered to be the same in the context of this document.

†† The eastern black rail is listed as “black rail (*Laterallus jamaicensis*)” by the TPWD. The eastern black rail subspecies is the only subspecies found in the Plan Area (see NatureServe 2020), so eastern black rail is synonymous with the Texas black rail in the context of this document.

††† The interior least tern is listed as “least tern (*Sterna antillarum*)” by the NMDGF and the Kansas Department of Wildlife and Parks. The interior subspecies is the only subspecies found in the Plan Area for these states (see USFWS 1985), so interior least tern is synonymous with least tern in the context of this document.

‡ The northern Aplomado falcon is listed as “Aplodomo falcon (*Falco femoralis*)” by the NMDGF. The northern subspecies is the only subspecies found in the Plan Area (see Keddy-Hector et al. 2020 for discussion of the subspecies), so northern Aplomado falcon is synonymous with Aplodomo falcon in the context of this document.

‡‡ The American peregrine falcon is listed as “peregrine falcon (*Falco peregrinus*)” by the NMDGF. The American subspecies is the only subspecies found in the Plan Area (see White et al. 2020 for discussion of the subspecies), so American peregrine falcon is synonymous with peregrine falcon in the context of this document.

‡‡‡ The Colorado Parks and Wildlife Department lists the subspecies of the piping plover (*Charadrius melodus circumcinctus*) as a state-listed threatened species. For the purposes of this analysis, the parent species and subspecies will be considered to be the same.

§ The NMGFD lists the southern redbelly dace as *Chrosomus erythrogaster*, which is synonymous with *Phoxinix erythrogaster* (NatureServe 2020).

Table B-3. State-listed Wildlife Species with the Potential to Occur within the Plan Area for the Wind, Solar, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|--------------|----------------|--------------|----------------------------|
|--------------|----------------|--------------|----------------------------|

^{§§}The TPWD lists both the parent species of bunched cory cactus (*Coryphantha ramillosa*) and the subspecies (*Coryphantha ramillosa* spp. *ramillosa*) as threatened species in Texas. As the parent and subspecies have the same status and habitat, they are grouped here for the purposes of analysis in this document.

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Table B-3. State-listed Wildlife Species with the Potential to Occur within the Plan Area for the Wind, Solar, Power Line, and Communication Tower Habitat Conservation Plan and Incidental Take Permit for the Lesser Prairie Chicken.

| Species Name | Federal Status | State Status | Habitat/Notes ¹ |
|---|----------------|--------------|----------------------------|
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Attachment C. List of Preparers

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**Attachment E. Response to Comments Received on the Draft Environmental Assessment
for the Renewable (Wind and Solar) Energy, Power Line, and
Communication Tower Habitat Conservation Plan and Incidental Take
Permit for the Lesser Prairie-Chicken**

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS–R2–ES–2020–N125)**

| Commenter/ Organization | Comment Number | Applicable to EA/HCP/ or General | Topic | Change needed to HCP? | Edit needed to EA? | Completed |
|---|-----------------------|---|--------------|------------------------------|---------------------------|------------------|
| Audubon Society | 1 | General | N/A | N/A | N/A | Yes |
| Comment: Audubon supports clean energy that is sited and operated to avoid, minimize and mitigate impacts on birds, other wildlife and the places they need now and in the future. Working closely with industry, government agencies, partners and our network, Audubon will work to support, expedite and expand the development of clean energy policies, planning and projects to achieve 100% clean energy and net zero emissions. Response: Comment noted, no response needed | | | | | | |
| Audubon Society | 2 | General | N/A | N/A | N/A | Yes |
| Comment: Given their disappearance from most of their former range and the species' imperiled status, Audubon is supportive of innovative and collaborative approaches that work towards conserving and recovering lesser prairie chicken (LEPC) across their range. This incidental take permit (ITP) and habitat conservation plan (HCP) presents an important precedent for programmatic permitting of candidate or listed species where a substantial buildout of renewable energy and transmission is expected. Response: Comment noted, no response needed | | | | | | |
| Audubon Society | 3 | General | N/A | N/A | N/A | Yes |
| Comment: We note that the only other multi-state ITP/HCP application attempt under the Endangered Species Act (ESA) for renewable energy is the HCP by Wind Energy Whooping Crane Action Group (WEWAG) initiated in 2008 for energy facilities in North Dakota, South Dakota, Montana, Colorado, Nebraska, Kansas, New Mexico, Oklahoma and Texas. This ambitious effort, which included LEPC as a covered species, may provide lessons from multi-state efforts that could be applied to strengthen this current HCP. Response: Comment noted, no response needed | | | | | | |
| Audubon Society | 4 | General | N/A | N/A | N/A | Yes |
| Comment: While we recognize that the purpose of this comment period is not on the federal status of LEPC, it is worth noting that Audubon is supportive of listing of LEPC under the ESA. We have engaged on this issue under prior reviews and incorporate those comments herein. We draw attention to this because of the potential that this species could become federally listed during the life of the ITP and HCP. Response: Comment noted, no response needed | | | | | | |
| Audubon Society | 5 | General | N/A | N/A | N/A | Yes |
| Comment: Accordingly, we support the Proposed Action: Issue an ITP to the Applicant and Approval of the Proposed HCP. Response: Comment noted, no response needed | | | | | | |
| Audubon Society | 6 | General | N/A | N/A | N/A | Yes |
| Comment: Of note, if USFWS determines to not federally list the species on or before May 26, 2021 then the USFWS should choose Alternative 1 and issue an Enhancement of Survival Permit (ESP) for a Candidate Conservation Agreement with Assurances (CCAA) under Section 10(a)(1)(A) of the ESA, recognizing the permit term would be 30 years. We also support Alternative 2 if the species is not listed as the USFWS policy allows that a CCAA | | | | | | |

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Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS-R2-ES-2020-N125)**

| Commenter/ Organization | Comment Number | Applicable to EA/HCP/ or General | Topic | Change needed to HCP? | Edit needed to EA? | Completed |
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| Audubon Society | 7 | HCP | Biological Goals | N/A | N/A | Yes |
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| Audubon Society | 8 | EA/HCP | Biological Goals | Yes | Yes | Yes |
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| Audubon Society | 9 | EA/HCP | Biological Goals | No | No | Yes |
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**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS-R2-ES-2020-N125)**

| Commenter/ Organization | Comment Number | Applicable to EA/HCP/ or General | Topic | Change needed to HCP? | Edit needed to EA? | Completed |
|------------------------------------|-----------------------|---|---|------------------------------|---------------------------|------------------|
| | | | directing mitigation lands to the same populations impacted by the Covered Activities rather than anywhere in the Plan or Permit area; 4) the HCP and ITP should provide written commitment for incorporation of the Recovery Plan for LEPC and its biological goals and objectives when available if LEPC becomes federally listed. Response: Response to recommendations 1: While the existing 70,000 acres has been approved under the programmatic conservation banking agreement, to date, there have been no credit transactions on two of the parcels; thus, the terms and conditions are currently non-binding. At the point of which a credit transaction is imminent and the easement is recorded, these parcels will then be permanently conserved and the management terms and conditions will be required. The other parcels have easements recorded, the management plans are being implemented, and they have had credit transactions. These parcels are in the Shinnery Oak Ecoregion and consist one parcel of 2,737 ac (1,108 ha) approved in October 2015. Another parcel consisting of approximately 10,500 ac (4,249 ha) was approved in September 2018. Monitoring has occurred on the two shinnery oak properties as they are meeting the performance standards outlined within the programmatic banking agreement. For details on performance standards one should refer to the programmatic banking agreement and it is not necessary for this HCP. 2: The regulatory standard for an HCP is to fully offset the covered impacts and thus it is not required to create an increase in population size. Additionally, as discussed in the HCP, due to concerns around survey methodologies and detectability of the species it is not possible to quantify take (and offsets) in terms of individuals but instead we use habitat as a proxy. 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. 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). 3. The genetic data available shows that the primary genetic differences across the range of the LEPC indicate that the genetic differentiation largely occurs based upon ecoregions. While not included in the biological goals and objectives the HCP requires all impacts to be offset within conservation occurring within the same ecoregion. 4. This is not a requirement of an HCP but instead we must determine that HCP meets issuance criteria for the LEPC. One of those issuance criteria is that "the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild", we have determined that the HCP as proposed would fully offset the impacts of the covered activities and thus would not reduce the likelihood of survival or recovery. This does not need to be covered in the Biological Goals section. | | | |
| Audubon Society | 10 | HCP | Adaptive Management | No | No | Yes |
| | | | Comment: Effective management of LEPC will require meaningful and scientifically based adaptive management, and this approach should link habitat-related conservation actions to populations. Achieving long-term conservation success requires strict adherence to the principles of adaptive management - "learning by doing" and making needed adjustments based on research and monitoring results. A return to management approaches in place prior to the need to address a population or habitat decline simply establishes a circular approach that likely will never lead to advances and improvements in management. Response: The HCP establishes the monitoring and reporting requirements which will allow the tracking and evaluation of the effectiveness of the HCP. | | | |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS–R2–ES–2020–N125)**

| Commenter/ Organization | Comment Number | Applicable to EA/HCP/ or General | Topic | Change needed to HCP? | Edit needed to EA? | Completed |
|---|-----------------------|---|--------------------------|------------------------------|---------------------------|------------------|
| Audubon Society | 11 | HCP | Adaptive Manage-ment | No | No | Yes |
| <p>Comment: Climate change should be considered specifically in the adaptive management portion of the HCP.</p> <p>Response: While we do expect climate change to impact the LEPC, we expect the HCP is adequately designed and allows the needed flexibility to address climate change concerns over the next 30 years. Prior to any renewal of the permit after the 30 year term of this HCP we will re-evaluate. While we do not disagree with the additional information provided regarding potential northward expansion of the species, we have determined that as designed the application meets issuance criteria in the identified permit area.</p> | | | | | | |
| Audubon Society | 12 | EA/HCP | Adaptive Management | No | No | Yes |
| <p>Comment: Recommendation: Under 6.2.6 of the HCP (p. 68) Change in the Lesser-Prairie Chicken Estimated Occupied Range and in the EA, a specific analysis or models of potential changes in the HCP lands due to warming from climate change over the 30 years of the permit should be included specifically and how adaptive management will be implemented and monitored. The final EA and the HCP should incorporate this data and specify a plan for the impact of warming by degrees on the lands and LEPC populations.</p> <p>Response: The HCP and EA includes the current version of the estimated occupied range based upon the current best available scientific information. The current estimated occupied range will change overtime but we cannot predict what those changes will be and climate change will only be one factor which determines this. The application identifies the plan area and permit area, the USFWS and applicant have had discussions about the potential for LEPC to occur outside of the identified areas. The applicant understands the issue and decided to keep the plan and permit area as depicted in the application.</p> | | | | | | |
| Audubon Society | 13 | EA/HCP | Adaptive Management | No | No | Yes |
| <p>Comment: Recommendation: A strategy for incorporating new scientific findings, such as a growing body of understanding related to climate change, should be specified. This information will be critical in meaningfully managing this species, especially as mapping off strongholds and connectivity may change.</p> <p>Response: While we do expect climate change to impact the LEPC, we expect the HCP is adequately designed and allows the needed flexibility to address climate change concerns over the next 30 years. Prior to any renewal of the permit after the 30 year term of this HCP we will re-evaluate. While we do not disagree with the additional information provided regarding potential northward expansion of the species, we have determined that as designed the application meets issuance criteria in the identified permit area.</p> | | | | | | |
| Audubon Society | 14 | HCP | Monitoring and Reporting | N/A | N/A | Yes |
| <p>Comment: Audubon appreciates the programmatic effort of the HCP Program, the commitment by the Applicant to work closely with the USFWS in issuing and reporting on Certificates of Inclusion (CI) in the ITP by those that are enrolled in the project and the plan for a “rolling review” by Applicant and Service are well designed. These efficiencies at scale are needed for the expected rapid and massive build out of wind and solar and transmission needed to meet 100% clean energy goals. The Princeton Net Zero America Report notes that wind- and solar- generated electricity will increase between two and three-fold by 2030. That target requires vast quantities of land. Under all three high-electrification pathways, the report envisions wind farms alone blanketing about 200,000 square miles, mostly in the Midwest — an area about the size of Colorado and Wyoming combined. Efficiency at scale</p> | | | | | | |

Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS–R2–ES–2020–N125)

| Commenter/ Organization | Comment Number | Applicable to EA/HCP/ or General | Topic | Change needed to HCP? | Edit needed to EA? | Completed |
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| Audubon Society | 15 | HCP | Monitoring and Reporting | No | No | Yes |
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| Audubon Society | 16 | HCP | Monitoring and Reporting | No | No | Yes |
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| Audubon Society | 17 | HCP | Monitoring and Reporting | No | No | Yes |
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| Audubon Society | 18 | HCP/EA | Duration of the Permit | Yes | Yes | Yes |
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Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS–R2–ES–2020–N125)**

| Commenter/ Organization | Comment Number | Applicable to EA/HCP/ or General | Topic | Change needed to HCP? | Edit needed to EA? | Completed |
|------------------------------------|-----------------------|---|--|------------------------------|---------------------------|------------------|
| | | | Response: The assumption built into the HCP is that all features installed are permanent and thus must be permanently offset. This has been taken into account but edits will be made to clarify that the assumption is that construction of the covered infrastructure is assumed to permanent unless otherwise noted. | | | |
| Audubon Society | 19 | HCP/EA | Duration of the Permit | No | No | Yes |
| | | | Comment: The HCP and EA also fail to clarify how mitigated lands will be managed – whether conserved and managed in perpetuity or only for the life of a given project. Furthermore, the proposed HCP and draft EA fail to define the “life of the project”, which will influence the life of the CI. Recommendation: “Life of the project” should be defined as well as the CI term. Recommendation: In order for willing participants to be attracted to the HCP Program, the duration of the regulatory certainty of the permit should be tiered by technology. Wind and solar projects generally have project life of 30 years, transmission projects and communications projects are of longer duration. Restoration projects are of shorter duration. Most wind and solar projects for instance have project lives of 30 years, and may be re-powered for another long term, whereas the permit term is 30 years. What are the renewal terms for CIs that are issued 10 years into the ITP for instance? Response: As discussed throughout section 5.0 of the HCP all conservation provided will be in perpetuity. The project life is as long as the project exists on the landscape, we are adding language to the HCP and EA to clarify that the assumption is that covered activities are permanent unless otherwise noted. All impacts are considered permanent, while some may “only” have a life span of 20 or 30 years this is actually 8-12 generations of LEPC and thus the biological impacts are permanent. Entities that enroll in the HCP through a CI will have coverage until the permit expires, so if an entity enrolls 10 years after approval of the HCP they would receive coverage for the 20 years at which point the permit maybe renewed. This should not be of major concern to developers as the potential for “take” of the LEPC largely occurs upon construction. After initial construction the LEPC largely avoids these areas and thus the potential for take is minimal. | | | |
| Audubon Society | 20 | HCP/EA | Public Participation According to NEPA | No | No | Yes |
| | | | Comment: If LEPC is federally listed and the USFWS issues an ITP to the Applicant, as described in the Proposed Action then public participation may only be offered once during this comment period on the EA and FEA and Finding of No Significant Impact (FONSI) and the resultant 30 year ITC permit. Recommendation: In order to continue public participation in the Program and HCP, the USFWS should conduct 5-year reviews of the status of the species as well as the HCP program and make them available for public comment and participation. Response: As required in the HCP, the Administrator will be required to conduct compliance and effectiveness monitoring. Monitoring data will 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 this HCP. Should changes in the HCP be potentially warranted to address significant uncertainty related to the LEPC or the effect of the conservation measures, the Applicant will indicate this and meet with the Service to discuss possible changes to the conservation measures. The required monitoring will determine if any revisions are effective in progressing toward the goals and objectives described in the HCP, and in this way establish the feedback loop that ultimately refines minimization and mitigation measures in the HCP. The Applicant is required to submit an annual report describing all monitoring and adaptive management efforts/results and the progress made towards meeting the HCP Biological Goals and Objectives. The annual reports submitted to the Service will be part of the public record and thus available. Once a permit is issued, there is no requirement through NEPA or the ESA that any additionally public comment period is required. | | | |

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| Commenter/ Organization | Comment Number | Applicable to EA/HCP/ or General | Topic | Change needed to HCP? | Edit needed to EA? | Completed |
|--|-----------------------|---|---------------------|------------------------------|---------------------------|------------------|
| Audubon Society | 21 | HCP/EA | Quantifying Impacts | No | No | Yes |
| <p>Comment: For wind projects, calculating only the acreage impacts of the turbine pads, roads, and other infrastructure is not sufficient to calculate the impact. The entire acreage of the Project Area of the wind project should be the basis of the calculation, unless the Project Area is large enough to incorporate scientifically defensible distances from lands in the Project Area that are proven would not cause displacement of LEPC populations, especially to leks.</p> <p>Response: As designed the HCP outlines a detailed, extensive methodology that is based upon the best available scientific information to quantify the effects of wind energy development. This approach was developed with significant input from the Service. We believe it adequately quantifies effects that rise to the level of "take" as defined by the ESA from wind energy development (including the effects of displacement).</p> | | | | | | |
| Audubon Society | 22 | HCP/EA | Quantifying Impacts | No | No | Yes |
| <p>Comment: Solar projects should be calculated to include Project Area acreage of the entire site and scientifically defensible distances from lands in the Project Area that are proven would not cause displacement of LEPC populations.</p> <p>Response: As designed the HCP outlines a detailed, extensive methodology that is based upon the best available scientific information to quantify the effects of solar projects. This approach was developed with significant input from the Service. We believe it adequately quantifies effects that rise to the level of "take" as defined by the ESA from wind energy development (including the effects of displacement).</p> | | | | | | |
| Audubon Society | 23 | HCP/EA | Quantifying Impacts | No | No | Yes |
| <p>Comment: Transmission Projects and Communications Towers should be calculated by height and distance from LEPC habitat – especially leks since tall structures have impact on leks - rather than the actual acreage of the easement or pads of these projects.</p> <p>Response: As designed the HCP outlines a detailed, extensive methodology that is based upon the best available scientific information to quantify the effects of Transmission projects. This approach was developed with significant input from the Service. We believe it adequately quantifies effects that rise to the level of "take" as defined by the ESA from wind energy development (including the effects of displacement).</p> | | | | | | |
| Audubon Society | 24 | HCP/EA | Other | No | No | Yes |
| <p>Comment: The Applicant's HCP states "The only alternative to the proposed incidental taking considered by the HCP was for project proponents to avoid any actions that could reasonably result in take of LEPC within the species' range. Under this alternative, some wind, solar, power line and communication tower development would be curtailed within the range of the LEPC (to avoid take of the species) and therefore would not meet the needs of project proponents. Complete avoidance of LEPC habitat is not practical or feasible for most wind, solar, power line, and communication tower industry activities within the Plan Area, therefore this alternative was not considered further." (HCP, p. 11). The EA does not address this rejected alternative, nor does the EA present any other rejected alternatives that were considered. We submit that avoidance is the first and highest method in the mitigation hierarchy to address impacts, and that avoidance could be implemented through a planning process that spatially defines and incentivizes more efficient permitting and fewer potential mitigation costs in areas that avoid LEPC habitat including "complete avoidance". Although it is not the USFWS obligation to initiate this planning effort, and which may be conducted by one or more states, it should be considered in the HCP and EA.</p> <p>Response: We agree that the avoidance is key on a project specific basis and this is actually built into the design of the HCP. The referenced quote on page 11 of the HCP is speaking about development on range-wide basis. That is, it is not practical to assume that no additional wind, solar, met, or</p> | | | | | | |

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| Commenter/ Organization | Comment Number | Applicable to EA/HCP/ or General | Topic | Change needed to HCP? | Edit needed to EA? | Completed |
|------------------------------------|--|---|--------------|---|---------------------------|------------------|
| | | | | transmission development will occur across the range of the LEPC moving forward so complete avoidance over the 30 years from these actions is not feasible. | | |
| American Bird Conservancy | 25 | | General | N/A | N/A | Yes |
| | <p>Comment: LEPC populations have declined by an estimated 97% from historical numbers, and 92% of its historical geographic range has been lost. A recent analysis found that hundreds of thousands of acres of this species' habitat has been converted to agriculture and other development since 2016 alone. Further, the species is vulnerable to other threats within its remaining suitable habitat (see review in Section 5.4.3 of the EA).</p> <p>Response: Comment noted, no response needed</p> | | | | | |
| American Bird Conservancy | 26 | HCP | General | No | No | Yes |
| | <p>Comment: Conservation action is urgently needed on a large scale to restore LEPC populations. ABC strongly supports in approach the kind of programmatic planning process, permitting under federal wildlife protection laws, and provision of compensatory mitigation that is presented in the EA and HCP. However, given: (1) the massive scale of the area proposed to be taken, which represents a substantial proportion of the species' already much-depleted range, (2) the vulnerability of the species, and (3) the difficulty in ensuring that compensatory mitigation effectively improves matters for the species, it is crucial to get the details correct.</p> <p>Response: Comment noted, the three points are addressed later in these comments, no response needed here</p> | | | | | |
| American Bird Conservancy | 27 | HCP | General | No | No | Yes |
| | <p>Comment: We adopt as an over-arching principle that this HCP must be based in additionality – ensuring that the proposed action will effectively improve the overall situation for the species by providing proven benefits beyond what will be lost. This action cannot be based in doing the minimum necessary. We offer recommendations to accomplish this in the following sections.</p> <p>Response: This is not the appropriate biological regulatory standard which an HCP must meet. Specifically, the Service must determine that the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of the taking. This HCP was designed to fully offset the covered impacts.</p> | | | | | |
| American Bird Conservancy | 28 | HCP/EA | General | No | No | Yes |
| | <p>Comment: 500,000 acres is not only a massive area for proposed take, but a substantial proportion of LEPC's remaining, already greatly-diminished geographic range. The final EA must provide a justification for this total acreage, i.e., how this was calculated. More importantly, a conservative approach should be taken to this calculation, representing a minimum area that would allow for the anticipated development. Calculation of the total area of take must be based in the impact to the species, not the development footprint. The impact area must include lands adjacent to the development footprint, these representing the maximum area of disturbance and effects to the species based on best available science in different stages of the species' life cycle.</p> <p>Response: The HCP provides the process and assumptions used to develop the build out and take estimates. Importantly, while the HCP requests 500,000 acres of take, the Service has determined that the mitigation outlined will fully offset the covered impacts as measured through the HCP. We</p> | | | | | |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
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| Commenter/ Organization | Comment Number | Applicable to EA/HCP/ or General | Topic | Change needed to HCP? | Edit needed to EA? | Completed |
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| | have additionally determined that because the mitigation will fully offset the impacts, the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild. | | | | | |
| American Bird Conservancy | 29 | EA/HCP | General | No | No | Yes |
| <p>Comment: The HCP is based in predictions about future development. It is also based in predictions, perhaps optimistic, about the availability and ultimate success of compensatory mitigation. In order to provide a net benefit to the LEPC, areas to be impacted and associated areas to be provided as compensatory mitigation must be strategically ordered. This requires both parts of the equation to be approached thoughtfully, and synergistically. Development must be directed first to areas of low LEPC habitat suitability, avoiding higher- quality habitat to every possible degree until development would otherwise be precluded, if then. If the full acreage proposed for take is not ultimately developed, what remains should be the highest-value habitat that was being considered. Similarly, compensatory mitigation must focus on sequentially highest-value actions. Ad hoc or as-available compensation measures are not as likely to succeed. The HCP appropriately identifies strongholds as a priority, and must also take into account habitat patch size, metapopulation structure, and genetic and habitat connectivity.</p> <p>Details for the above should be provided in the final EA. This must include an analysis of relative value of current habitat and opportunity areas for compensatory mitigation, and how these will be strategically ordered for development and compensation, respectively, to achieve the greatest net benefit for the species.</p> <p>Response: The HCP requires that lands providing compensatory mitigation be strategically located, in place prior to impacts occurring, and are meeting performance standards to ensure the highest probability of success. An HCP is not required to produce a net conservation benefit but instead is only required to offset covered impacts to the maximum extent practicable, this HCP was designed to fully offset impacts and takes into account uncertainties associated with mitigation by requiring a 2:1 mitigation ratio (on average). As designed the HCP includes a tiered mitigation strategy will create a financial incentive to place projects in lower priority LEPC habitat. The HCP provide details about how compensatory mitigation lands will be targeted to ensure they are placed in the highest priority areas for the LEPC. All mitigation lands must be approved by the Service prior to use in this HCP. When discussing strongholds, the HCP references the Service white paper on strongholds which outlines the minimum standards needed for a property to qualify as a stronghold. These standards include discussions on minimum patch size, metapopulation structure, and connectivity. These points are all included in the draft EA by reference to the HCP which describes these issues in detail.</p> | | | | | | |
| American Bird Conservancy | 30 | EA/HCP | General | No | No | Yes |
| <p>Comment: The success of the HCP depends on effective compensatory mitigation. The “accounting” and implementation of this action is vital to ensuring that the proposed action improves the outlook for the species. We strongly support the concept of protecting acres of existing, high-quality, occupied LEPC habitat as a means of compensation. However, it is unknown whether any given acre of this habitat might ultimately be lost. Therefore, if 500,000 acres of habitat are developed as a result of the proposed action, and the same acreage of existing habitat is protected, the net impact is an unknown area between 0 and 500,000 acres. In addition, compensatory mitigation actions are not guaranteed to succeed. Despite our best efforts and the best science, we cannot always tell nature how to behave. This is part of the justification and need for mitigation ratios, which we are pleased that the HCP and EA acknowledge and incorporate .Because of this, we recommend that for every acre of habitat taken for development, habitat LEPC habitat restoration occur elsewhere at a minimum 1:1 ratio, with the ratio increasing with relative value of LEPC habitat taken, and existing, high-quality,</p> | | | | | | |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS-R2-ES-2020-N125)**

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|------------------------------------|-----------------------|---|--------------|------------------------------|---------------------------|---|
| | | | | | | <p>occupied habitat be protected. This accounts for the uncertainty about the success of restoration, including whether the area will ultimately be occupied, and the uncertainty about whether protected lands represent a net increase in the species' range. Accordingly, this provides the necessary additionality to improve matters for the species. We recommend that this be coupled with research into the effectiveness of habitat restoration based on relevant variables, with the intent of informing future such action.</p> <p>Response: The requirement of an HCP is not "improve the outlook for the species", instead as discussed in previous responses the requirement is that the HCP meets issuance criteria for a Section 10(a)(1)(B) permit as outlined by the ESA. While the maximum take allocation request under this HCP is 500,000 acres, the HCP was designed to account for impacts on an acre for acre basis and provide compensatory mitigation to fully offset the effects that rise to the level of take from covered activities. Specifically for every one acre impacted the HCP will provide (on average) 2 acres of conservation in perpetuity, a minimum of one of those conservation acres will consist of restoration actions (an action that converts non-usable space to LEPC habitat) to ensure no net loss of habitat, and the rest of the required conservation acres would consist of enhancement actions to account for some of the uncertainties associated with compensatory mitigation. Additionally, through the design of the HCP, compensatory mitigation is required to be in place prior to impacts and that mitigation must be strategically located in the highest priority areas for the LEPC and must be meeting performance standards.</p> |
| American Bird Conservancy | 31 | EA/HCP | General | No | No | Yes |
| | | | | | | <p>Comment: If the HCP is approved and the LEPC is listed under the ESA in the forthcoming USFWS listing decision, 5-year status reviews must provide sufficient data to allow stakeholders to evaluate whether the approved action is benefiting the species. This must include an accounting of the location and relative value of habitat taken and provided as compensation, and in which manner the compensation was provided (existing habitat protection, restoration), at minimum. If the LEPC is not listed, we urge that a 5-year status review, with a public review and comment period, be included as part of the monitoring and reporting for the HCP. Information and data provided should include elements discussed in the previous paragraph. In either scenario, we urge that raw data be made publicly available, in addition to reports.</p> <p>Response: The HCP establishes the monitoring and reporting requirements which will allow the tracking and evaluation of the effectiveness of the HCP. The annual reports submitted to the USFWS will be part of the public record and thus available. The raw data, beyond what is included in the annual reports, cannot be shared without express written consent due to privacy concerns and thus unless the development entity or mitigation provider agrees to provide raw data in a separate agreement those will not be made available through this HCP.</p> |
| American Bird Conservancy | 32 | HCP | General | No | No | Yes |
| | | | | | | <p>Comment: The HCP Plan Area includes areas that are used by other ESA-listed species, including the migratory pathway of the Endangered Whooping Crane. It is imperative that the HCP effectively address and minimize potential impacts to these species. We are pleased that the HCP would require projects to provide proof of ESA compliance for these species. We urge that this be taken one step further – to create exclusion zones for development where areas important for LEPC and other ESA-listed species overlap. For example, a recent study found that Whooping Cranes are displaced by wind energy facilities to a distance of 5km. Areas that are both within suitable LEPC habitat and within 5 miles of a Whooping Crane migratory stopover site should be eliminated from consideration for wind energy development. We urge that the approach to other ESA-listed species in the HCP also be applied to eagles and the Bald and Golden Eagle Protection Act. The language concerning eagles and BGEPA in the EA provide no assurance that compliance with BGEPA would be assured. We recommend that project applicants be required to provide written evidence of compliance with BGEPA, to the satisfaction of the USFWS.</p> |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS-R2-ES-2020-N125)**

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| | | | | | | <p>Response: The HCP requires that all participants be in compliance with the all other existing state and federal regulations, this includes having coverage for other ESA listed species and adequate coverage under BGEPA. We cannot require applicants to incorporate "no build zones" within their applications. We discussed areas where the HCP would not cover actions of development based upon the LEPC but those discussions did not include other species as the LEPC is the only covered species under this HCP.</p> |
| American Bird Conservancy | 33 | EA | General | No | No | Yes |
| | | | | | | <p>Comment: Given the magnitude of the area proposed for take, the species' status, and the uncertainties and need for additional details outlined in previous sections, we argue that an Environmental Impact Statement (EIS) will be needed to appropriately evaluate the proposed action.</p> <p>Response: The Service has determined that there are no significant impacts associated with the Proposed Action for the reasons stated in the FONSI and an EIS is not required.</p> |
| American Bird Conservancy | 34 | EA | Cumulative Effects | No | No | Yes |
| | | | | | | <p>Comment: The cumulative impacts analysis provides some high-level analysis, but we find that it gives surprisingly little consideration to LEPC or other ESA-listed species (e.g., Whooping Crane). We find this inadequate and urge that a more expansive analysis be provided for listed species.</p> <p>Response: The EA contains a complete cumulative impact discussion and analysis for LEPC for the proposed action, as well as the CCAA and no action alternatives. As stated in the HCP, projects seeking to enroll in the HCP or CCAA would be required to provide documentation of ESA compliance for species not covered under the programmatic permit. Similarly, enrolled projects would be required to adhere to state regulations relating to state-listed endangered and threatened species. Therefore, only impacts to the LEPC are discussed in the EA, including, but not limited to, the cumulative impacts section of the EA.</p> |
| American Bird Conservancy | 35 | EA | Alternatives | No | No | Yes |
| | | | | | | <p>Comment: Three alternatives are provided – the proposed action, a Candidate Conservation Agreement with Assurances (CCAA) and no action. We appreciate that both an HCP and a CCAA were considered. However, each is only truly appropriate for a specific outcome of the forthcoming listing decision (HCP for listing, CCAA if not). As such, the alternatives analysis largely becomes a choice between the applicable action and no action, which we find inadequate. We recommend that at least one additional viable alternative be considered. We recommend that this include a USFWS-led exercise to identify least-conflict areas suitable for the various types of development included in the HCP, such that minimization of impacts to wildlife would be assured, and unnecessary social conflict associated with such projects would be avoided.</p> <p>Response: The action before the Service is whether to approve the HCP and to issue the ITP. In addition, the Services has analyzed the approval of a CCAA and EOS. Additional alternatives are not within the Service's scope of review and would not meet the purpose and need.</p> |
| American Bird Conservancy | 36 | EA/HCP | Applicant | No | No | Yes |
| | | | | | | <p>Comment: LPC Conservation LLC would be responsible for oversight and monitoring of the HCP, yet the documentation does not describe this entity, or provide any sense of their financial strength, experience and capacity to effectively achieve stated goals, etc. If the public is being asked to trust 500,000 acres of habitat for an imperiled species to this entity, more information must be provided to allow for an informed evaluation of the likely success of the proposed approach.</p> |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
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| | Response: We find that the HCP provides adequate information to indicate that applicant has the ability to implement the HCP and the HPC meets all issuance criteria. | | | | | |
| American Clean Power Association | 37 | HCP | General | No | No | Yes |
| | <p>Comment: We are particularly concerned that in the event of a LEPC listing under the ESA the USFWS may make some of the terms of the HCP more broadly applicable in individual HCPs (by insisting on the measures to meet issuance criteria) or through inclusion in a 4(d) rule. This would exacerbate the missed opportunity and would likely preclude renewable energy development and transmission in the LEPC range.</p> <p>Response: The Service is required to ensure that prior to any approval of an HCP under Section 10 of the ESA that the application meet issuance criteria. Any future individual HCPs will be required to meet issuance criteria prior to approval regardless of the final listing status.</p> | | | | | |
| American Clean Power Association | 38 | HCP | General | No | No | Yes |
| | <p>Comment: As the LEPC is threatened by climate change, USFWS should advance ways to provide regulatory certainty with workable provisions for zero-emission wind and solar energy emissions. This would also benefit LEPC through reducing risks from climate change and expanding available conservation for LEPC</p> <p>Response: The Service acknowledges the impact of climate change on the LEPC, as outlined within our recently released SSA and proposed listing rule. The Service will continue to look for opportunities to promote renewable energy development in ways are that compatible with the conservation of at risk species, including the LEPC.</p> | | | | | |
| American Clean Power Association | 39 | HCP | General | No | No | Yes |
| | <p>Comment: The provisions of this HCP should not be precedential for individual HCPs that may be pursued if the LEPC is listed as endangered or in a potential 4(d) rule if listed as threatened</p> <p>Response: The Service is required to ensure that prior to any approval of an HCP under Section 10 of the ESA that the application meet issuance criteria. Any future individual HCPs will be required to meet issuance criteria prior to approval regardless of the final listing status.</p> | | | | | |
| American Clean Power Association | 40 | HCP | Quantifying Impacts | No | No | Yes |
| | <p>Comment: The HCP and accompanying EA do not rely on the best available science with respect to the impact assessment for wind energy and should be reconsidered...The comment letter goes on to provide extensive discussion around some of the citations with relation to the impacts of wind energy on grouse.</p> <p>Response: The Service has extensively evaluated all of the science around this topic. Specifically we provide a comprehensive summary of the effects of wind energy development on the LEPC in the white paper we completed on July 27, 2016. More recently, we provide an updated discussion on this topic, which include the previously mentioned white paper, plus a review of all publications since 2016 in our SSA report of the LEPC. In the SSA report we reaffirm our position regarding the effects of wind energy development on the LEPC. We have made this determination that effects rise to level of take going out 1,800 meters from wind turbines based upon the best available scientific information (this includes consideration of all the citations provided in this comment letter).</p> | | | | | |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS-R2-ES-2020-N125)**

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|---|-----------------------|---|---------------------|------------------------------|---------------------------|------------------|
| American Clean Power Association | 41 | HCP | Quantifying Impacts | No | No | Yes |
| <p>Comment: The transmission impact zone is overly conservative, does not rely on the best available science and should be reconsidered</p> <p>Response: The Service has reviewed all of the science around this topic. For a summary of the impacts of transmission lines on the LEPC please review the SSA report. The Service has made the determination based upon the best available scientific information and this comment letter does not provide any new information that was not considered.</p> | | | | | | |
| American Clean Power Association | 42 | HCP | Quantifying Impacts | No | No | Yes |
| <p>Comment: The solar impact zone is admittedly based on a “lack of empirical data” and should be reconsidered</p> <p>Response: The comment is accurate that there is no empirical data on the impacts of solar development on the LEPC because this is a relatively new impact in the range of the LEPC thus there is no research on the topic. In addition, there is no research in progress that will inform this topic. After an evaluation of the best available scientific information on this topic the Service recommended that the applicant use the approach taken by WAFWA. This is an appropriate approach and is based upon the best available scientific information and can be re-evaluated when more data is available.</p> | | | | | | |
| American Clean Power Association | 43 | HCP | Quantifying Impacts | No | No | Yes |
| <p>Comment: The impact assessment drives costs that ACP expects will be prohibitive for wind energy solar energy and transmission participation</p> <p>Response: We do not believe this blanket statement is accurate. The determination of costs requires a project specific evaluation. Projects occurring in lower priority LEPC habitat that has existing impacts will have lower mitigation requirements. Projects occurring in high priority LEPC areas which are highly intact with low levels of existing impact will have higher mitigation requirements. Project proponents who work with the administrator early in their planning process will have maximum flexibility to minimize impact the LEPC thus minimize mitigation requirements. The LEPC range has a high degree of existing fragmentation, in fact there is a great deal acres within the LEPC range that currently does not support LEPC habitat and thus would require no mitigation. Within our SSA report we estimate that of the 21,000,000 acres in the estimate occupied range, a maximum of only 4,000,000 acres is LEPC habitat....that means that less than 20% of the EOR would require mitigation if impacted, or 80% would not require mitigation. Point being, there are more than adequate opportunities to develop within the range of the LEPC where impacts can be avoided and in cases where impacts cannot be avoided they can definitely be minimized resulting in decreased mitigation requirements. The cost comparison tables provided are not representative of reality and not factual. The comparison tables use a 1:1 mitigation ration assumption for the RWP, the RWP has an average mitigation ration of 2:1, just like this proposed HCP. The comparison tables also use an assumed 1:1 mitigation ratio for the "Great Plains HCP" but this HCP was never completed and specifically the last draft we saw of this it did not meet issuance criteria because it under-quantified effects and had inadequate mitigation. Thus, presenting these tables are highly misleading and completely inaccurate.</p> | | | | | | |
| American Clean Power Association | 44 | HCP | Quantifying Impacts | No | No | Yes |
| <p>Comment: The “displacement” approach to the impact assessment does not include an analysis of how displacement equates to take or how it adversely impacts LEPC populations, nor does the HCP explain how displacement equates to take to the degree suggested by the impact distances</p> <p>Response: The HCP references other documents from the Service which include this assessment.</p> | | | | | | |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS–R2–ES–2020–N125)**

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|---|-----------------------|---|---------------------|------------------------------|---------------------------|------------------|
| American Clean Power Association | 45 | HCP | Mitigation Ratios | Yes | Yes | Yes |
| <p>Comment: Mitigation ratios set forth in the HCP appear to go well beyond full offset (and, thus, the standard for mitigation established by section 10 of the ESA) without explaining why such high ratios are necessary to offset the impacts authorized under the HCP</p> <p>Response: It is standard practice to require mitigation ratios greater than 1:1 to account for the inherent uncertainties associated with compensatory mitigation. Within this HCP we are giving a up a known commodity (LEPC habitat) for the promise of creating additional LEPC that we do not have certainty that LEPC will use immediately upon meeting performance standards and thus we needed to account for that uncertainty. We will add language to the HCP to state this.</p> | | | | | | |
| American Clean Power Association | 46 | HCP | General | No | No | Yes |
| <p>Comment: FWS should confirm its long-standing position that application for an HCP is voluntary and applicant-driven, and that maintaining this position is critical now that the agency has set the precedent of publishing draft HCPs for unlisted species</p> <p>Response: As stated in section 1.2 of the HCP: "Wind, solar, power line, and communication tower company participation in the HCP and an application for take authorization is voluntary."</p> | | | | | | |
| American Clean Power Association | 47 | HCP | General | No | No | Yes |
| <p>Comment: ACP believes the requirement that a COI applicant must describe its Bald and Golden Eagle Act (BGEPA) compliance strategy is neither necessary nor required by statute, regulation, or case law.</p> <p>Response: The HCP, as written, does not require "proof" of compliance with BGEPA before CIs can be issued, rather the HCP requires that the prospective CI holders provide the Administrator/Applicant with a brief description of their planned BGEPA compliance approach for each CI. The Service can only issue ITPs to authorize incidental take resulting from activities that are otherwise lawful, per the 10(a)(1)(B) permit issuance criteria; therefore, project proponents seeking coverage under the HCP through CIs, must comply with all applicable federal, state, and local statutes and regulations. Providing a brief description of the planned BGEPA compliance approach assists the Administrator in ensuring compliance with permit issuance criteria for individual CIs.</p> | | | | | | |
| American Clean Power Association | 48 | HCP | Quantifying Impacts | Yes | Yes | Yes |
| <p>Comment: ACP also observes two additional impact distances in the draft HCP are inconsistent with the cited source: The WAFWA Lesser Prairie Chicken Range-Wide Conservation Plan (Van Pelt et al. 2013). Besides the wind and transmission examples cited earlier in our comments, we would note the following discrepancies, with the residential building one being relevant for the HCPs treatment of solar energy:</p> <p>Response: This table was reviewed and updated to ensure accuracy. There was one citation error that was identified and corrected.</p> | | | | | | |
| AFWA | 49 | HCP | Regs | No | No | Yes |
| <p>Comment: The proposed ITP and supporting HCP constitute an unlawful exercise of federal authority over the LEPC, a species that is not listed under the ESA and is managed by state fish and wildlife agencies...Additional info is provided in comment letter</p> | | | | | | |

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| | <p>Response: Applicants and the Service have been developing CCAAs that more and more are used as HCPs for unlisted species. While they meet the 2016 CCAA policy standard, they are based more on the minimize and mitigate strategy of a section 10(a)(1)(B) ITP. These are typically large plans that match an industry that impacts an unlisted species with landowners or mitigation providers that can implement the conservation strategy in the CCAA to cover future and ongoing impacts to the species, by setting up a conservation program that minimizes and mitigates the effects of the incidental take of the unlisted species. This arrangement is not what the CCAA policy or regulations were intended to cover. CCAAs were to be used for purely beneficial projects and to provide conservation for the unlisted species, and in return for increasing the number of individuals, distribution or other conservation outcome; the permit holder would be provided incidental take for existing, ongoing activities. The proposed HCP has been developed to treat the currently unlisted LEPC as if it were a listed species and has provided sufficient background information, analysis of effects from proposed covered activities, and mitigation and monitoring requirements. Furthermore, the HCP would provide voluntary pre-listing conservation that may be used to evaluate the species' status in a future listing decision. Unlike a CCAA, an HCP developed for a non-listed species, such as the currently proposed HCP, would provide additional benefits for the LEPC by providing for enrollment, additional conservation, and a known regulatory environment post-listing. While our 2016 revised HCP handbook provides guidance that an ITP and supporting HCP include at least one ESA-listed animal species, we believe considering an HCP without a currently listed species, in this instance, is supported by the Conference Report to the 1982 Amendments that created HCPs which expressly considered both listed and unlisted species. Furthermore, we have determined that there are no specific regulations prohibiting the processing of an ITP for an unlisted species. The proposed HCP would still be required to meet all issuance criteria in section 10 of the act and 50 CFR 17.22(b) and 17.32(b) prior to an ITP being issued, therefore, processing this ITP application and HCP is consistent with all current regulations. The proposed HCP does not change States' management ability of the LEPC in that, per the 10(a)(1)(B) permit issuance criteria, project proponents seeking coverage under the HCP through CIs must comply with all applicable federal, state, and local statutes and regulations. In addition, just as 10(a)(1)(A) ESPs issued for CCAAs, the proposed ITP would not become effective until such time that the LEPC may be listed. Prelisting participation in the HCP is voluntary for participants and would continue to provide the affected States continued regulatory authority regarding wildlife species.</p> | | | | | |
| AFWA | 50 | EA | Regs | No | No | Yes |
| | <p>Comment: The Service's proposal fails to account for the substantial differences between pre-listing mechanisms such as candidate conservation agreements with assurances (CCAAs) and post-listing mechanism such as HCPs.....additional info is provided in comment letter</p> <p>Response: We do acknowledge the different regulatory standards. The CCAA option was included as an alternative under NEPA for consideration. We simply include this as it is an option, the applicant could have applied for a CCAA instead of an HCP so it should be considered. Simply including it as an alternative does not mean that it would by default meet the regulatory standards for a CCAA.</p> | | | | | |
| CPW | 51 | HCP | State Cooperation | No | No | Yes |
| | <p>Comment: Section 6 of the ESA requires the Secretary to "cooperate to the maximum extent practicable with the States." 16 U.S.C. § 1535(a). Such cooperation involves notice and opportunity to review and provide comments on state managed species beyond that provided for by a 30-day public comment period. CPW has management authority for the lesser prairie-chicken (LEPC) in Colorado. The LEPC is identified as a Colorado state threatened species and managed as a Tier 1 Species of Greatest Conservation Need. Considerable state resources are directed toward conservation of the species. CPW is actively engaged in LEPC conservation through population management, land use recommendations, habitat enhancement and restoration efforts with private landowners, and implementation of the WAFWA Lesser Prairie-chicken Range- wide Conservation Plan (Van Pelt et al. 2013). We also cooperate extensively with our partner wildlife agencies in Kansas, New Mexico, Oklahoma, and Texas through the LEPC Interstate</p> | | | | | |

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| | | | <p>Working Group. A thirty-day period is not sufficient for thorough review of the proposed HCP, which has broad conservation and management implications for the LEPC and habitat conservation in Colorado. CPW requests improved cooperation from the U.S. Fish and Wildlife Service (Service) regarding actions affecting state-managed wildlife species.</p> <p>Response: The Service has and will continue to cooperate to the maximum extent practicable with the States. Specifically, for this HCP the Service did coordinate to the maximum extent practicable with the affected States. We provided monthly updates on the process and expectations during our coordination calls. The Service requested permission from the applicant to share draft versions of the HCP but the applicant did not grant the Service that permission. The applicant stated concerns over conflicts of interest, as the affected States are largely responsible for the administration of the WAFWA mitigation strategy which also covers the LEPC. Being that we could not share the document for early review, the most we could do was to keep the affected States informed as to the process and expectations, and thus the Service has met all requirement under Section 6 of the ESA. While we could not share this specific HCP with the affected States prior to the public comment period, the Service has consistently over the past several years coordinated directly with the States on LEPC issues which directly informed this HCP. This coordination includes, but is not limited to, discussions on general biological considerations for the LEPC, design of mitigation programs, how to quantify impacts to the LEPC, how to offset impacts to the LEPC, impact radii, minimization measures, and LEPC habitat prioritization.</p> | | | |
| CPW | 52 | EA | Regs | No | No | Yes |
| | | | <p>Comment: The Service states, “[w]e anticipate that [a CCAA] would result in the same level of potential impacts to LEPC and the same level of LEPC conservation as what is proposed in the HCP for those enrolled prior to listing...” 86 Fed. Reg. 19634, 19636 (April 14, 2021). But issuing an ESP supported by a CCAA requires a higher conservation standard than issuing an ITP supported by an HCP. If, despite the higher conservation standard required to issue an ESP supported by a CCAA, the Service believes the proposed HCP would provide equivalent conservation benefits, CPW asks the Service to explain why.</p> <p>Response: We do acknowledge the different regulatory standards. The CCAA option was included as an alternative under NEPA for consideration. We simply include this as it is an option, the applicant could develop an application for a CCAA instead of an HCP so it should be considered. Simply including it as an alternative does not mean that it would by default meet the regulatory standards for a CCAA. In fact, within the EA it only states the impacts would be the same under either a CCAA or an HCP and that because it is assumed that the mitigation program would look the same that impacts under either program "would be fully offset". This is not a conclusion that an application for an EOS permit associated with a CCAA would meet issuance criteria.</p> | | | |
| CPW | 53 | HCP | LEPC Range and CHAT | No | No | Yes |
| | | | <p>Comment: In its discussion of the proposed Permit and Plan Area (Section 1.5) the HCP does not use the best and most current available information to delineate the area occupied by LEPC in Colorado. Several counties (Pueblo, El Paso, Crowley, Otero, Bent) are included that do not provide suitable LEPC habitat while areas in Kit Carson county, where CPW has documented LEPC and where LEPC are expected to expand, are not part of the Plan Area. CPW has recently updated LEPC Estimated Occupied Range (EOR) and LEPC Focal Areas (CHAT 1) and Connectivity Zones (CHAT 2) for Colorado Furthermore, the updated Colorado CHAT 1 and CHAT 2 mapping should be used as the mapping layer to target avoidance, minimization, and mitigation rather than the Southern Great Plains Crucial Habitat Assessment Tool (SGP v 3.0) maps for Colorado. The proposed HCP Mitigation Offset</p> | | | |

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| | | | Ratio Requirements (Section 5.3.3.1) specifically use LEPC CHAT categories to incentivize development outside of high priority areas. CPW's updated CHAT mapping should be incorporated prior to acceptance of the proposed HCP and issuance of an ITP. Response: Being that the applicant was developing a range-wide HCP the Service recommended the use of a singular data set that covered the entire range. Thus, the best available range-wide data set is the Southern Great Plains CHAT data available from WAFWA. Prior to publication of this proposal, the Service made the applicant aware that the plan area and thus the permit area does not include all areas occupied by the LEPC, the applicant understood and wished to keep the boundaries as depicted. This is an applicant driven process, and the Service can provide advice, but at the end of the day we must evaluate the application submitted and determine if it meets issuance criteria. We determine that not including all occupied areas in this HCP does not prevent it from meeting issuance criteria. | | | |
| CPW | 54 | HCP | Mitigation | No | No | Yes |
| | | | Comment: At this time, LPC Conservation LLC (Applicant) does not provide a Service-approved mitigation option for inclusion within Northwestern Service area (HCP Appendix F), which covers Colorado and the entirety of the Sand Sagebrush Ecoregion. Therefore, there are no current options for companies in Colorado to enroll in the proposed HCP to avoid, minimize, and mitigate in one of the four LEPC ecoregions. Response: Correct. Prior to any impacts being covered under this HCP in the sand sage brush ecoregion, compensatory mitigation would need to be in place. | | | |
| CPW | 55 | HCP | Mitigation | No | No | Yes |
| | | | Comment: The proposed HCP states this "HCP is expected to fully offset the impacts to LEPC resulting from enrolled projects" through mitigation that supports the Service's stronghold approach. Section 5.2 of the HCP outlines the Biological Goals and Objectives for the Conservation Measures – including "ensuring connectivity between strongholds and committing to strategies to avoid or reduce ongoing fragmentation in conjunction with the establishment of strongholds and connectivity between strongholds." Mitigation involving conservation and restoration in isolated strongholds will not fully offset fragmentation impacts from enrolled companies for a landscape species such as LEPC. As such, the proposed HCP is in fact unlikely to fully offset the impacts resulting from the effects of fragmentation on the landscape that may preclude connectivity and reduce the overall range-wide LEPC population to occurrence in isolated strongholds. Increased fragmentation and reduced connectivity will not provide for resiliency, redundancy, and representation for LEPC across the range. Response: Through the design of the HCP, the applicant has committed to accounting for all effects that rise to the level of take as defined by the ESA, and agreed upon by the Service. The HCP outlines the process to fully offset those impacts which includes a tiered mitigation system which uses an average of a 2:1 mitigation ratio. All mitigation must be in place and must meet performance standards prior to the impacts occurring. Additionally, all mitigation must be strategically located and must be approved by the Service. For every one acre of habitat lost, the HCP will offset that with a minimum of one acre of restoration to result in no net loss of habitat and then provide the rest of the required mitigation as actions to enhance existing habitat. All mitigation will be provided in perpetuity. This system was designed using the best available scientific information to accurately quantify take, incentivize minimization of impacts to areas of lower priority and areas already impacted, provide strategic permanent mitigation, and to accurately quantify the amount of mitigation being provided. This system fully takes into account the species needs, the principals of compensatory mitigation, temporal aspects of both impacts and offsets, and spatial implications for both impacts and offsets. This system will fully offset take associated with covered activities from enrolled participants. | | | |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS-R2-ES-2020-N125)**

| Commenter/ Organization | Comment Number | Applicable to EA/HCP/ or General | Topic | Change needed to HCP? | Edit needed to EA? | Completed |
|---|-----------------------|---|--------------|------------------------------|---------------------------|------------------|
| CPW | 56 | HCP | Minimization | Yes | Yes | Yes |
| <p>Comment: Avoidance of currently occupied LEPC habitats should be the priority action used to conserve LEPC. Mitigation should be used only as a last resort because restoration of unoccupied LEPC areas will not replace habitat lost in currently occupied areas. CPW recommends additional measures to avoid and minimize habitat loss. Established LEPC leks have been shown to indicate quality nesting and brood cover. Therefore, CPW recommends incorporating additional avoidance of known occurrences of LEPC leks into the proposed HCP. Specifically, CPW recommends adding 1.25 mile lek buffers as additional permit exclusion areas (similar to mitigation properties and others listed in Section 1.5). This is consistent with Colorado Oil and Gas Conservation Commission Rules restricting ground disturbance within designated High Priority Habitats, including prohibiting surface occupancy within 1.25 miles of a LEPC lek site (https://cogcc.state.co.us/reg.html#/rules; see CCR 404-1:1202.c.(1).E). The HCP is incorrect when it states that no state-specific regulatory measures are currently being implemented. Colorado's Oil and Gas rules are regulatory in nature. Furthermore, CPW's High Priority Habitats recommends avoidance within 1.25 miles of a lek rather than 0.6 miles https://cpw.state.co.us/Documents/Conservation-Resources/Energy-Mining/CPW_HPH-Map-Layers.pdf.</p> <p>Response: We agree that avoidance is the priority, this HCP was designed to cover impacts where complete avoidance is not possible. Creating areas designated as no-build zones within the HCP based upon leks is problematic for several reasons (including no clear definition of what constitutes a lek, issues with species detectability, issues with survey effort, and issues with mapping precise locations of existing leks) making this not practical. Additionally, to meet issuance criteria for an HCP, an applicant is not required to avoid all impacts, instead the requirement is to minimize and mitigate to the maximum extent practicable.</p> <p>The HCP currently reads "With the exception of Colorado, where LEPC is a Tier 1 "species of greatest conservation need" (CPW 2015) and the Colorado Oil and Gas Conservation Commission (oil and gas well permit issuing authority) requires projects within 0.6 miles of leks active within the last 10 years to consult with Colorado Parks and Wildlife and implement best management practices to minimize impacts to LEPC, no state-specific regulatory measures to address the impacts of oil and gas activities on LEPC are currently being implemented (Van Pelt et al. 2013). Based upon this comment we will update this section of the HCP to reflect the 1.25 miles as indicated.</p> | | | | | | |
| CPW | 57 | HCP | Mitigation | No | No | Yes |
| <p>Comment: If additional exclusion areas are not possible, then CPW recommends adjusting the Mitigation Offset Ratio Requirements (Section 5.3.3.1) to include areas of known lek occurrence as Category 1 focal areas, requiring the most Mitigation Acres per Impact Acre. For a declining species such as the LEPC with already reduced numbers, particularly in Colorado, it is essential to develop conservation plans that effectively incentivize avoidance of known lek occurrence areas, along with the associated nesting and brood rearing habitats. As proposed, the HCP requires documentation of known LEPC occurrences within and near the project, but it does not incentivize avoidance of these areas through the Mitigation Offset Ratio. Therefore, the proposed HCP does not meet the Service's conservation recommendation for the LEPC because it does not adequately emphasize avoidance and minimization of impacts on these most critical LEPC habitat components.</p> <p>Response: The HCP is designed to measure impacts to the LEPC using habitat as a proxy for take. If impacts occur in landscapes that have the ability to support the LEPC and the site specific vegetative conditions meet the needs for the species, then the HCP assumes it is occupied habitat and requires mitigation as such. Due to issues with lek data and surveys it would not be practical to use lek locations to adjust mitigation ratios. The HCP does</p> | | | | | | |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS-R2-ES-2020-N125)**

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|----------------------------|----------------|-------------------------------------|---------------------|-----------------------|--------------------|--|
| | | | | | | incentivize avoidance of high priority LEPC areas by the use of a tiered mitigation system and the design also encourages placement of new infrastructure in areas which are already impacted. |
| CPW | 58 | HCP | Adaptive Management | No | No | Yes |
| | | | | | | <p>Comment: Section 5.5 of the HCP describes Adaptive Management. To be effective, adaptive management requires built-in quantifiable thresholds that trigger adjustments to improve outcomes. The proposed HCP acknowledges “that the cumulative impacts of the projects are not well understood, but the addition of multiple projects added in close proximity to each other across the landscape could increase the magnitude of impacts to the species” and provides “if a threshold or density of projects is found to be detrimental to the species through new research, then the HCP will restrict enrollment of new projects that would exceed such threshold or density across the landscape.” This unquantified threshold will not allow effective adaptive management. Sullins et al. (2019) documented that overall relative probability of use by LEPC decreased as cumulative densities of anthropogenic features increased. Their results indicate the occupancy threshold for vertical point feature density occurs at approximately 2 vertical feature per 12.6 km². CPW recommends explicitly incorporating a density threshold of no more than 2 vertical feature per 12.6 km² prior to approval of the proposed HCP and issuance of an ITP.</p> <p>Response: The Sullins study which is referenced in this comment was considered when establishing the metrics which account effects that rise to level of take which are included within this HCP. This section of the HCP regarding new densities is meant to address new research as it becomes available.</p> |
| CPW | 59 | HCP | Administration | No | No | Yes |
| | | | | | | <p>Comment: Section 9.1.2 of the HCP describes an HCP Advisory Board in general terms, but only says that the “HCP Administrator will develop, within six months of the ITP issuance, an Advisory Board to assist with oversight and implementation of the HCP.” State wildlife agencies are mentioned as potential members, but not required members. Given that the LEPC is not currently listed under the ESA and therefore under the authority of state wildlife agencies, CPW requests mandatory inclusion of state wildlife agencies on the Advisory Board.</p> <p>Response: An Advisory Board is not required to meet issuance criteria for an HCP, and in the case of this HCP was a voluntary inclusion by the applicant/administrator. As such, the Service cannot require the administrator to make this mandatory, we have discussed this with the applicant and the applicant has declined to make this change. As written we have determined that this proposal meets issuance criteria for an HCP. Under the HCP all participants are required to comply with all other federal, state, and local statutes and thus the HCP does not change or impede upon State management of an unlisted species prior to any listing decision.</p> |
| CPW | 60 | EA | NEPA | No | No | Yes |
| | | | | | | <p>Comment: As noted in the draft EA, National Environmental Policy Act (NEPA) provides public review of the Service’s decision-making process. Also, the culmination of the EA process is either a FONSI or a decision to prepare an EIS. CPW believes the proposed HCP would significantly affect the quality of the human environment and, therefore, the Service must prepare an EIS. See 42 U.S.C. § 4332(2)(C). CPW believes this is true whether the Service applies the NEPA regulations in effect before September 14, 2020, or those in effect today. Issuing a programmatic ITP, as described with the proposed HCP, for a currently unlisted but imperiled species across five states would have significant impact. Therefore, CPW recommends additional analysis and public comment via the development of an EIS. Issuance of this ITP would provide incidental take coverage for up to 500,000 acres of suitable LEPC habitat. The Service acknowledges that there is no way to predict where voluntary enrollment in the HCP will occur and therefore no way to predict impacts to LEPC. Significantly, acres of suitable habitat are not necessarily equal to acres of occupied habitat. Both the Service and the</p> |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
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| | | | | | | <p>Applicant expect increased renewable energy, power line, and communication tower buildout within the Permit and Plan Area. Enrolled projects on up to 500,000 acres could impact the vast majority of occupied habitats with known LEPC occurrence (aside from the approved mitigation conservation banks and other protected properties identified as exclusion areas). The Summary of Impacts to LEPC (Section 5.1.3.1) recognizes “the overall loss of 500,000 acres of LEPC habitat would be of moderate intensity, but concludes the loss “would be fully offset by implementation of the Conservation Program.” As noted above, however, CPW believes the loss of 500,000 acres of suitable habitat, in addition to the broader cumulative effects of fragmentation and loss of connectivity, would not be fully offset by the proposed HCP. So, in CPW’s view, this conclusion cannot support a FONSI.</p> <p>Response: The Service has determined that there are no significant impacts associated with the Proposed Action for the reasons stated in the FONSI and an EIS is not required.</p> |
| CPW | 61 | EA | NEPA | No | Yes | Yes |
| | | | | | | <p>Comment: CPW also notes that the eastern black rail (<i>Laterallus jamaicensis jamaicensis</i>), a federally threatened species, is known to occur in the plan area. But the species does not appear in the Draft EA’s table of listed species with the potential to occur within the plan area (Table 4-2), so it appears the Service did not consider the impacts on this species in the Draft EA.</p> <p>Response: We have reviewed the status of the eastern black rail in the plan area and have updated Table 4-2 in the EA as appropriate.</p> |
| CPW | 62 | EA | NEPA | No | No | Yes |
| | | | | | | <p>Comment: Because the LEPC is not listed, the draft EA’s analysis of the No-Action Alternative is speculative and incomplete. The Service seems to recognize this, stating “[i]f in the future the LEPC becomes federally listed, wind, solar, power line, and communication tower projects would need to modify their design under the No-Action Alternative to avoid take.” But there is no need to speculate: the Service’s listing decision is due in less than two weeks. CPW therefore recommends the Service prepare an EIS with a complete analysis of this alternative after its listing decision. In closing, we ask that the Service delay further action on this issue pending the proposed LEPC listing rule and then provide additional analysis via an EIS, including additional public review.</p> <p>Response: The action before the Service is whether to approve the HCP and issue the ITP, or to approve a CCAA and issue an EOS at the time of the application. Therefore, under the No Action alternative evaluated in the EA, there would be no ITP or EOS permit issued and no approval of an HCP or CCAA for the currently unlisted LEPC. The EA a full description of the no action alternative, as well as a full analysis of the potential environmental consequences associated with the alternatives based on the best available information.</p> |
| Energy and Wildlife Action Coalition | 63 | HCP | Impact Radii | No | No | Yes |
| | | | | | | <p>Comment: Application of impact distances as a result of potential displacement should not set the standard for LEPC take authorizations...additional details provided in letter that discusses the standard for take and cites some recent studies on wind development and discusses transmission impact radius...with the conclusion that the impact radii are overly conservative</p> <p>Response: The impact radii were defined using the best available science to account for impacts which rise to the level of take. The studies cited on wind energy development and transmission lines were included in the USFWS analysis on what constitutes take from these impacts. Please see the SSA report for a completed discussion of the science around these impacts.</p> |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS–R2–ES–2020–N125)**

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|--|-----------------------|---|-------------------|------------------------------|---------------------------|------------------|
| Energy and Wildlife Action Coalition | 64 | HCP | Impact Radii | No | No | Yes |
| <p>Comment: However, if the conservative impact assessments set forth in Table 3 are not revised downward prior to Service approval of the HCP, EWAC encourages the Service not to automatically assume that the impact distances set forth in this HCP represent the best available science. Rather, we encourage the Service to examine the best scientific and commercial information available at during the listing determination, and to not unnecessarily hold future project proponents seeking authorization under ESA sections 7 or 10 to the same standards adopted under this HCP. In other words, given the lack of causal link between the impact distances and actual death or injury to LEPC, the Service should not require the standard set forth in this HCP to become the standard for impact calculations under ESA sections 10 and 7 in the future.</p> <p>Response: The impact radii were defined using the best available science to account for impacts which rise to the level of take. The studies cited on wind energy development and transmission lines were included in the USFWS analysis on what constitutes take from these impacts. Please see the SSA report for a completed discussion of the science around these impacts. Any additional applications under the ESA would be required to meet the appropriate regulatory standard identified within the ESA.</p> | | | | | | |
| Energy and Wildlife Action Coalition | 65 | HCP | Impact Radii | No | No | Yes |
| <p>Comment: the HCP includes a changed circumstance that allows revision of the impact distances based on updates to the best available science. Because of the importance of the impact distances to enrollees' impact calculations, which then directly influences mitigation calculations required under the HCP, EWAC recommends the HCP provide greater clarity on how "best available science" will be determined and applied by the Service, and on what timeframe/schedule (e.g. rolling basis, annually, etc.).</p> <p>Response: The evaluation of the best available science will occur continuously as the USFWS monitors new scientific information available for the LEPC continuously.</p> | | | | | | |
| Energy and Wildlife Action Coalition | 66 | HCP | Impact Assessment | No | No | Yes |
| <p>Comment: Finally, given the fact that the impact distances prescribed by the HCP are based on project type, EWAC questions why COI applicants would nevertheless be required to provide a detailed description of activities to be performed by the applicant within the project limits. Similarly, EWAC questions why COI applicants would also be required to analyze areas within a 6-mile buffer of a given project if those areas do not inform the impact analysis and/or mitigation requirements. EWAC suggests the HCP be revised to reduce the administrative burden on COI applicants, the HCP Administrator, and the Service by removing requirements that do not directly inform the take and mitigation calculations under the HCP.</p> <p>Response: A detailed description of activities is required to ensure that all sources of impacts are accounted for and covered. Analyzing the larger landscape area is important as it will provide context to the evaluation as the best available science clearly indicates that to truly evaluate LEPC habitat one must evaluate multiple spatial scales. For example, many sites may provide small patches of grassland that when taken out of context would be considered potentially suitable to the LEPC, but when evaluated at the larger scale it becomes apparent that the areas does not have the ability to support the LEPC and thus even though some grassland is present, no mitigation would be required.</p> | | | | | | |
| Energy and Wildlife Action Coalition | 67 | HCP | Mitigation Ratios | No | No | Yes |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS–R2–ES–2020–N125)**

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| | | | <p>Comment: The HCP indicates that impacts of the proposed taking will be fully offset by the mitigation program described in the HCP. However, the mitigation ratios required under the HCP appear to go well beyond fully offsetting the impacts of the proposed incidental taking without explaining why these high ratios are necessary to offset the impacts authorized. For example, the HCP requires mitigation well above a 1:1 ratio for all LEPC impacts – including for indirect habitat impacts— and additionally requires that mitigation provided be of equivalent or greater Crucial Habitat Assessment Tool (“CHAT”) category. This is a significant departure from how HCPs typically prescribe mitigation ratios for indirect impacts. For example, myriad Service-approved HCPs for the endangered golden-cheeked warbler require a mitigation ratio of 0.5:1 for indirect habitat impacts. EWAC recommends the HCP be revised to reduce the mitigation ratios described in the HCP in recognition of the fact that (1) there is not currently a demonstrable link between placement of anthropogenic structures in proximity to LEPC habitat and actual death or injury to a member of the species to the degree ascribed in Table 3; and (2) to be consistent with how other HCPs assign mitigation to indirect impacts. EWAC also notes that impacts would be fully offset with a simple 1:1 ratio for impacts to LEPC habitat, particularly given the HCP’s commitment to replacing impacted habitat with habitat of the same or better quality.</p> <p>Response: The HCP was designed to accurately measure impacts that rise to the level of take and fully offset those covered impacts using the best available scientific information. As designed the mitigation program will provide 1 acre of restoration for each acre of impact....because of uncertainties associated with the success of mitigation, especially temporally, a simple 1:1 mitigation ratio is not enough to fully offset impacts. Thus an additional acre of enhancement action is included to account for the uncertainties, this is not uncommon practice for compensatory mitigation and each mitigation system is specifically designed for the species (so cross species comparisons are not appropriate). The HCP outlines what is needed to fully offset impacts to the LEPC for the covered activities and thus meet issuance criteria, nothing more.</p> | | | |
| Energy and Wildlife Action Coalition | 68 | HCP | Impact Assessment | No | No | Yes |
| | | | <p>Comment: Finally, we recommend the HCP explicitly state that areas within the impact distances that lack actual suitable habitat whether demonstrated by the CHAT tool, desktop analysis, or by habitat assessments performed in the field be removed from the impact and mitigation calculations required of COI applicants. While examples provided in the HCP appear to contemplate that some areas will be removed from the impacts and mitigation assessments required of COI applicants, EWAC believes a more direct statement is warranted. These adjustments could help encourage participation in the HCP. Moreover, these adjustments remain consistent with ESA statutory standards.</p> <p>Response: As outlined in section 4.4 of the project specific impact analysis methodology, areas already impacted by existing infrastructure are not considered LEPC habitat and thus no mitigation would be required for those specific areas.</p> | | | |
| Energy and Wildlife Action Coalition | 69 | HCP | Cost | No | No | Yes |
| | | | <p>Comment: Mitigation costs are prohibitive for wind, solar, and electric transmission or distribution projects...the letter goes on to provide cost estimates based upon various assumptions for each of these types of projects</p> <p>Response: The decision of participation rests with the project proponent and is completely voluntary as stated in the HCP. The HCP outlines the steps needed to fully offset impacts realized from projects. Some projects located in high priority LEPC areas which have very little fragmentation will result in larger mitigation requirements but there are very large areas within the range of the LEPC that are highly fragmented and would require no mitigation in many instances and little mitigation in other instances. The point being that developers have direct control of mitigation costs by project siting</p> | | | |

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Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS-R2-ES-2020-N125)**

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| | | | | | | decisions. It appears that the examples provided in the letter were made using several inaccurate assumptions regarding the impact assessment and pricing. |
| Energy and Wildlife Action Coalition | 70 | HCP | Impact Assessment | No | No | Yes |
| | | | | | | <p>Comment: EWAC is also concerned that the take calculation metrics would result in only a small handful of projects being able to enroll before hitting the 500,000-acre cap set forth in HCP section 4.3.27 For example, the HCP estimates that the collective footprint of electric transmission lines within potentially suitable LEPC habitat, after a 15 percent discount because of existing impacts on the landscape, is 238,000 acres. Thus, full participation by the electric transmission and distribution industry could potentially consume nearly half of the available incidental take authorization. Using the estimates provided in Table 4 a single 200-MW (30,781-acre) wind energy project enrolling in the plan would quickly deplete 6% of the available incidental take authorization. If those estimates held true, enrollment in the plan would be exhausted by 16 wind energy projects without any enrollment by any other industry.</p> <p>Response: The number of projects which can be enrolled in the proposed HCP will be determined by the number of acres impacted by each project. The total take within the proposed HCP is capped at 500,000 acres. The take estimate was provided on by the applicant and considers potential future build out and potential future mitigation availability.</p> |
| Energy and Wildlife Action Coalition | 71 | HCP | Noise and Timing | No | No | Yes |
| | | | | | | <p>Comment: Specifically, Section 5.3.2.2 requires minimization of “noise and blasting, traffic volume and speed, and access points” between March 1 and July 15, but does not indicate whether this minimization measure applies to all lands enrolled in the LEPC HCP or only those areas that are within a certain distance from an active lek. EWAC notes that even the WAFWA range-wide conservation plan, which for a number of reasons is unworkable for some in the electric power and transmission industries, more narrowly tailored a similar minimization measure to specify that this restriction applied only within 1.25 miles of a lek recorded as active within the last five years. EWAC recommends the HCP clarify that these types of minimization measures only apply within 1.25 miles of a lek recorded as active within the last five years.</p> <p>Response: As written this would apply to all projects enrolled. The assumption is that a project is enrolled because it occurs in occupied LEPC habitat. Relying upon lek data to define areas that are not occupied is not supported by the science as there are issues with survey effort as well as detectability.</p> |
| Energy and Wildlife Action Coalition | 72 | HCP | Noise and Timing | No | No | Yes |
| | | | | | | <p>Comment: Section 5.3.2.2 further restricts construction, operations, and routine maintenance activities for non-emergencies during the LEPC breeding season between the hours of 3:00am and 9:00am in areas within three miles of known leks active within the previous five years. By contrast, the WAFWA range-wide plan contains a similar restriction, but includes a smaller area in which the measure is required (1.25 miles rather than 3). EWAC suggests that there are circumstances that likely would not qualify as “emergencies” that nevertheless require construction, operations, and maintenance between the hours of 3:00am and 9:00am during LEPC breeding season. For example, LEPC breeding season includes months with high temperatures and/or humidity; for construction, maintenance, and operations crews, work often begins before dawn to ensure timely and uninterrupted delivery of electric power and the safety of the crews. EWAC recommends that the HCP’s restriction on breeding season construction, operation, and maintenance in the early hours of the day be flexible enough to allow less disruptive non-emergency work where compliance would be impracticable or create health and safety concerns.</p> |

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| | | | | | | Response: The Service and the applicant have discussed and believe that the measure is appropriate as written to minimize effects of covered activities to the LEPC during the breeding season. |
| Energy and Wildlife Action Coalition | 73 | HCP | BGEPA and NHPA | No | No | Yes |
| | | | | | | Comment: EWAC understands that ESA section 10 requires that the take authorized by an ITP must be related to activities that are “otherwise lawful”; however, we believe that the HCP provisions relating to compliance with the Bald and Golden Eagle Protection Act (“BGEPA”) and National Historic Preservation Act (“NHPA”) go beyond the statutory requirements of the ESA and other programmatic HCPs issued by the Service, and require Service involvement to a degree that may undercut the efficiency of the HCP. EWAC addresses these concerns below. Response: As stated in the comment, the Service can only issue ITPs to authorize incidental take resulting from activities that are otherwise lawful, per the 10(a)(1)(B) permit issuance criteria; therefore, project proponents seeking coverage under the HCP through CIs, must comply with all applicable federal, state, and local statutes and regulations. Providing a brief description of the planned BGEPA compliance approach assists the Administrator in ensuring compliance with permit issuance criteria for individual CIs with regards to BGEPA. With regards to NHPA, compliance with Section 106 of the NHPA, as amended, is required by law for all Federal undertakings. In context of this HCP, the federal undertaking is the approval of the HCP, issuance of an ITP, and the Applicant’s issuance of subsequent CIs under the ITP. The NHPA process identified in the HCP ensures that the Service is in compliance with NHPA for this HCP and all subsequent CIs. |
| Energy and Wildlife Action Coalition | 74 | HCP | BGEPA | No | No | Yes |
| | | | | | | Comment: Section 1.7.2 of the HCP requires that applicants for certificates of inclusion must provide “a brief description of [their] planned BGEPA compliance approach.” Proof of compliance with other statutes is not a prerequisite to issuing ITPs. Given risk to LEPC generally arises during construction, and risk to eagles may not arise until operations, potential applicants may elect to pursue ESA authorization in advance of completing eagle risk assessments and developing BGEPA compliance strategies. Participation in the HCP – and the concomitant conservation of LEPC – should not be discouraged while the details of BGEPA compliance are negotiated between the project proponent and the Service. Furthermore, because application for ITPs and permits under BGEPA are voluntary, it is inappropriate to make compliance with the ESA and BGEPA interdependent. Section 10 of the ESA does not mandate a showing of BGEPA compliance in order for the Service to issue an ITP. Likewise, BGEPA does not mandate compliance with the ESA. For these reasons, EWAC recommends the HCP be revised to simply include an acknowledgment that applicants for certificates of inclusion are aware of the potential applicability of BGEPA to a given project, including the Service’s enforcement authority relating thereto. Response: The HCP, as written, does not require “proof” of compliance with BGEPA before CIs can be issued, rather the HCP requires that the prospective CI holders provide the Administrator/Applicant with a brief description of their planned BGEPA compliance approach for each CI. The Service can only issue ITPs to authorize incidental take resulting from activities that are otherwise lawful, per the 10(a)(1)(B) permit issuance criteria; therefore, project proponents seeking coverage under the HCP through CIs, must comply with all applicable federal, state, and local statutes and regulations. Providing a brief description of the planned BGEPA compliance approach assists the Administrator in ensuring compliance with permit issuance criteria for individual CIs. |
| Energy and Wildlife Action Coalition | 75 | HCP | NHPA | No | No | Yes |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS–R2–ES–2020–N125)**

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| | <p>Comment: EWAC appreciates that the HCP describes a NHPA “undertaking” in connection with an ITP as the Service’s authorization of take rather than its authorization of an underlying activity. Likewise, we agree the area of potential effect (“APE”) is appropriately limited to those portions of projects seeking authorization under the HCP. Nevertheless, because of the broad area covered by the impact distances set forth in the HCP, the APE for any given project will, in fact, be extraordinarily large and that, in some cases, it will be impracticable to comply with the extensive coordination process set forth in Worksheet 8 of the HCP in a timely manner.³³ This, in turn, undercuts the ability of the HCP to provide an efficient ESA permitting mechanism for covered industries. In EWAC’s view, the process set forth for NHPA coordination in Worksheet 8 also significantly impairs the efficiency the HCP strives to provide the Service. Specifically, for each application for a certificate of inclusion (CI), the Service is required, among other things, to review and approve the applicant’s proposed APE, to review and consult with the relevant state historic preservation officer (SHPO) and/or tribal historic preservation officer (THPO) regarding the applicant’s project and maps and the proposed procedures in place to address inadvertent discoveries of regulated artifacts, to review and coordinate with SHPO/THPO on any field work, and to engage in negotiations on how best to address historic properties (including potentially collaborating on creating a memorandum of agreement to resolve adverse effects to the same). EWAC encourages the Service to consider taking an approach similar to that adopted in the recently approved Nationwide Candidate Conservation Agreement for Monarch Butterfly on Energy and Transportation Lands (“Monarch CCAA”), which requires enrollees to, among other things: (1) determine whether a ground-disturbing activity would occur within a known cultural site and make documentation of any conclusions available to the Service or program administrator; (2) where an activity occurs within a known cultural site and cannot be modified to avoid the boundaries of such a site, assume there is potential to affect an historic property; and (3) follow the steps laid out by the Monarch CCAA to coordinate and consult with the SHPO and/or THPO.³⁴ Notably, the Service has minimal involvement in this process unless and until the project proponent and SHPO/THPO begin to resolve adverse effects to cultural resources pursuant to 36 C.F.R. 800.6. We also encourage the HCP to include a list of specific activities that would be exempt from NHPA section 106 review consistent with 36 C.F.R. 800.3(a)(1) as the Monarch CCAA has done.</p> <p>From a practicability standpoint, many circumstances may arise in which a COI holder may be unable to grant the HCP Administrator or other access to the vast area covered by the LEPC impact buffers. Oftentimes individual landowner agreements associated with a given wind, solar, or electric transmission or distribution projects dictate access and use, and often prohibit cultural resource surveys specifically. We suggest that the NHPA the HCP recognize that not all COI applicants will be able to strictly comply with the NHPA process and that such inability should not preclude a project from enrollment.</p> <p>Response: Compliance with Section 106 of the NHPA, as amended, is required by law for all Federal undertakings. In context of this HCP, the federal undertaking is the approval of the HCP, issuance of an ITP, and the Applicant’s issuance of subsequent CIs under the ITP. The NHPA process identified in the HCP has been developed in coordination with the Applicant and Department of Interior Regional Solicitors and contains the necessary steps and Service oversight/involvement to ensure that the Service is in compliance with NHPA for this HCP and all subsequent CIs.</p> | | | | | |
| Energy and Wildlife Action Coalition | 76 | HCP | Additional NEPA and ESA Requirements | N/A | N/A | Yes |
| | <p>Comment: Given the degree of Service involvement in the review and approval of certificates of inclusion (“COI”) under the HCP, EWAC recommends the Service confirm its commitment to its 2013 Final Guidance for ESA Incidental Take Permits Covering Multiple Projects or Project Owners, which among other things clarifies that issuance of COIs by a master permittee does not require additional NEPA or ESA section 7 process, so long as the activities covered by the COI are within the scope of the NEPA and ESA section 7 analyses performed in connection with the issuance of the master ITP.</p> | | | | | |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS-R2-ES-2020-N125)**

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| Energy and Wildlife Action Coalition | 77 | HCP | CI | No | No | Yes |
| | <p>EWAC notes that detailed involvement of the Service in the COI process strains the limited resources of the agency and would seem to negate the efficiency otherwise gained through a programmatic approach. Response: confirmed</p> <p>Comment: The HCP requires that each applicant for a COI demonstrate funding sufficient to cover the cost of implementing the conservation measures required under the individual COI or risk denial of enrollment. Among the costs to COI applicants are application fees, enrollment fees, annual administration fees, mitigation fees, and contingency fees. EWAC notes that many of the funds seem duplicative of one another, have no estimate, and are subject to significant swings in cost based on the level of overall enrollment or are entirely discretionary on the part of the HCP Administrator or mitigation provider. For example, the HCP requires COI applicants to fund a “contingency buffer” equal to five percent of the total mitigation cost required under the COI that must be provided through a guarantee held through a third-party guarantor and evidence must be provided to the HCP Administrator at the time of application.</p> <p>EWAC recommends the funding assurances for COI applicants be revised to reduce duplicative costs, to include estimates of costs and administrative fees be provided for planning purposes, and to remove the requirement of a contingency buffer since mitigation for impacts to LEPC is paid prior to impacts and then managed by the HCP administrator and mitigation providers, who would have had to ensure appropriate management and maintenance of mitigation parcels in order to be an approved provider. EWAC notes that there is no requirement under the ESA, implementation regulations, or case law that a permittee provide “contingency buffers” for its mitigation program.</p> <p>Finally, EWAC requests the HCP be revised to allow COI holders to pay all administration fees upfront (rather than on an annual basis) so that such costs can be capitalized. Response: Because the HCP is designed to be a market based program, the costs will change with market forces and thus up front costs cannot be provided in the HCP. Interested parties will need to contact the administrator to obtain accurate cost estimates. As written, the CI provides the flexibility for project proponents to pay all admin costs upfront.</p> | | | | | |
| Energy and Wildlife Action Coalition | 78 | HCP | Cost adjustment | No | No | Yes |
| | <p>Comment: EWAC recommends the HCP provide greater clarity on the process that will be used to adjust mitigation and other administrative fees, and suggests that staffing and administrative costs be managed to avoid unnecessarily raising the costs of enrollment and place financial burdens on COI applicants. The HCP’s apparent permission of significant unknown administrative costs, in combination with other duplicative costs as described above, may discourage participation. Response: Because the HCP is designed to be a market based program (as indicated in the HCP), the costs will change with market forces and thus up front costs cannot be provided in the HCP. Interested parties will need to contact the administrator to obtain accurate cost estimates.</p> | | | | | |
| Energy and Wildlife Action Coalition | 79 | HCP | Advisory Board | No | No | Yes |

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| | | | | | | <p>Comment: EWAC supports the HCP’s incorporation of an advisory board to assist with oversight and implementation of the HCP. While the HCP indicates the advisory board will include representatives from a number of sectors, including industry members, the HCP also notes that the Administrator has full discretion on membership. EWAC recommends the HCP specify that the advisory board will be equally seated with representatives from each of the industries included in the HCP (either individual companies or trade associations) and remaining stakeholders. Further, EWAC recommends the advisory board’s industry members be equally represented by individual industry members and trade groups.</p> <p>Response: The decisions around the advisory board are those of the applicant. The applicant has declined to make any requirements about representation on the board at that this time.</p> |
| Energy and Wildlife Action Coalition | 80 | HCP | CI Breach | No | No | Yes |
| | | | | | | <p>Comment: Section 8.6 of the HCP addresses damages in the event of a COI holder breach of the terms of participation. Specifically, the HCP requires that a COI holder in violation of the terms of its enrollment pay damages in the amount of \$250,000 and that the COI holder pay any outstanding enrollment fees in addition to these damages. EWAC notes that other programmatic HCPs do not contain such stark provisions relating to COI breach and instead contain provisions limiting the effect of potential breach on the master permit (or the effect of a breach by the master permittee on COI holders). Likewise, the recently approved Nationwide Candidate Conservation Agreement for Monarch Butterfly on Energy and Transportation Lands states explicitly that “[n]o party shall be liable in damages for any breach of this Agreement, any performance or failure to perform an obligation under this Agreement, or any other cause of action arising from this Agreement.” In sum, we recommend that the HCP remove the requirement that a COI holder in breach of the terms of its enrollment pay damages and outstanding enrollment fees, and instead provide robust cross-default language and rely on the revocation of a COI and the Service’s power of enforcement under ESA section 11.</p> <p>Response: A CI holder is responsible for meeting the Terms and Conditions contained within their CI. The program administrator has the right to outline the required amount for damages.</p> |
| Energy and Wildlife Action Coalition | 81 | EA/HCP | Voluntary | No | No | Yes |
| | | | | | | <p>Comment: When finalizing the Draft EA, the Service should reiterate its long-standing position that an application for an HCP is voluntary and applicant-driven, particularly now that the agency has set the precedent of approving an HCP that does not include any currently listed species. For example, the Service’s 2016 Habitat Conservation Planning Handbook (“HCP Handbook”) states that “seeking an ITP is a voluntary action by an applicant.” Similarly, 2018 guidance from the Department of the Interior indicates it is “vital that Service staff recognize that whether to apply for a[n] ESA] section 10(a)(1)(B) permit is a decision of the applicant.” Reiterating this point here is particularly important to limit the potential that field offices will insist that project proponents enroll in this plan, or insist that project proponents develop HCPs for unlisted species of concern, not associated with this HCP, in the future.</p> <p>Response: The HCP currently states that participation is voluntary and thus no changes needed.</p> |
| Energy and Wildlife Action Coalition | 82 | HCP | Review Process | No | No | Yes |
| | | | | | | <p>Comment: EWAC appreciates that the HCP is a voluntary program that will be run by a non-federal HCP administrator. However, given that this HCP may influence the Service’s technical assistance to those who elect not to enroll in the HCP, EWAC suggests that the HCP contemplate a periodic (e.g., every 5-year) public informational comment period on the impact distances, mitigation ratios, and other information relevant to HCP performance.</p> |

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| | | | | | | Information gathered could help to inform the advisory board regarding adaptive management and other provisions, and would provide a means for COI holders to provide input to the HCP Administrator and advisory board on how the process is working from the perspective of the regulated community. Response: As required in the HCP, the Administrator will be required to conduct compliance and effectiveness monitoring. Monitoring data will 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 this HCP. Should changes in the HCP be potentially warranted to address significant uncertainty related to the LEPC or the effect of the conservation measures, the Applicant will indicate this and meet with the Service to discuss possible changes to the conservation measures. The required monitoring will determine if any revisions are effective in progressing toward the goals and objectives described in the HCP, and in this way establish the feedback loop that ultimately refines minimization and mitigation measures in the HCP. The Applicant is required to submit an annual report describing all monitoring and adaptive management efforts/results and the progress made towards meeting the HCP Biological Goals and Objectives. The annual reports submitted to the Service will be part of the public record and thus available. |
| Energy and Wildlife Action Coalition | 83 | HCP | Project Evaluation | No | No | Yes |
| | | | | | | Comment: EWAC strongly recommends an estimated timeframe be provided for the COI application and approvals process. Specifically, because the Service is tasked with approving the impact assessment (which ultimately defines a project's mitigation requirements), significant delays in this process could result in missed construction deadlines which, in turn, would cause increases in construction costs and, potentially, fines for missing any state- or federally-mandated operation commencement date. While EWAC understands that neither the Service nor the HCP Administrator likely can commit to a precise timeline, providing guidance to COI applicants would be helpful for project planning. Response: Section 5.4.1 outlines the time frame for approval. It states that once a final project application is sent to the Service that "the USFWS will work in good faith with the HCP Administrator and CI applicants to finalize the project impact assessment and conservation measures described in the CI Application (Appendix B) within 30 days of receipt of a draft CI Application" |
| Energy and Wildlife Action Coalition | 84 | HCP | Section 7 | N/A | N/A | Yes |
| | | | | | | Comment: As currently drafted, the HCP does not appear to consider that projects with an ESA section 7 nexus (e.g., projects occurring in whole or in part on federal lands, projects that require authorization under one or more nationwide permits pursuant to section 404 of the Clean Water Act) could benefit from an expedited consultation process by enrolling in and abiding by the terms and conditions of the HCP. EWAC recommends the Service consider the analysis in the HCP and in its future biological opinion as fully addressing effects from activities in the covered sectors, so long as projects with federal nexi follow the impacts analysis, and avoidance, minimization, and mitigation measures set forth in the HCP and so long as the HCP has sufficient take authorization to cover the impacts from a given project. While EWAC understands that a project with a federal nexus who has enrolled in the HCP may still be required to undergo formal consultation, EWAC believes any such consultation would be significantly streamlined, as there could be no jeopardy to the LEPC. Response: Comment noted, no response needed |
| Energy and Wildlife Action Coalition | 85 | HCP | Figures 3 and 4 | Yes | Yes | Yes |

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| | | | | | | <p>Comment: Figures 3 and 4 of the HCP appear to have a discrepancy in the polygons concerning the LEPC's "estimated occupied range" and "current range" in Colorado. Figure 3 appears to indicate the estimated occupied range in Kit Carson County, Colorado, which is outside the HCP Plan Area and differs from the depiction in Figure 4 of the species' "current range." EWAC recommends this discrepancy be corrected.</p> <p>Response: Figure 4 was updated for clarity.</p> |
| Energy and Wildlife Action Coalition | 86 | HCP | Figure 3 | No | No | Yes |
| | | | | | | <p>Comment: Figure 3 should be revised to clarify the extent of the HCP Plan Area and HCP Permit Area to make clearer which areas are, in fact, eligible for coverage.</p> <p>Response: We reviewed this figure and the language in this section and believe it accurately depicts the plan area and permit area. The plan area is the entire extent to which the analysis considered potential effects. The permit area is some subset of the plan area and will only include enrolled projects, because the applicant cannot predict the exact location of projects that would not be enrolled, the permit area cannot be graphically illustrated.</p> |
| Energy and Wildlife Action Coalition | 87 | HCP | Banks | No | No | Yes |
| | | | | | | <p>Comment: The HCP is not entirely clear whether the LEPC conservation banks referenced in the plan will be available to parties that do not enroll, or whether all such credits are reserved for the enrollees of this HCP.</p> <p>Response: The HCP identifies the conservation banks as the primary mechanism for providing mitigation to offset impacts within this HCP. As with any other HCP, this does not preclude the bank sponsor from selling credits from the mitigation bank to other parties, the only requirement is that no credit can be sold twice.</p> |
| ODWC | 88 | HCP | Statutory Authority | No | No | Yes |
| | | | | | | <p>Comment: The Oklahoma Department of Wildlife Conservation (ODWC) believes that this application for an ITP is outside the statutory authority of the U.S. Fish and Wildlife Service (USFWS) given there are no species involved that are listed or otherwise subject to the ESA, the law that gives USFWS limited authority to engage in our trust responsibility to manage fish and wildlife for the benefit of Oklahoma citizens.</p> <p>Response: Applicants and the Service have been developing CCAAs that more and more are used as HCPs for unlisted species. While they meet the 2016 CCAA policy standard, they are based more on the minimize and mitigate strategy of a section 10(a)(1)(B) Incidental Take Permit. These are typically large plans that match an industry that impacts an unlisted species with landowners or mitigation providers that can implement the conservation strategy in the CCAA to cover future and ongoing impacts to the species, by setting up a conservation program that minimizes and mitigates the effects of the incidental take of the unlisted species. This arrangement is not what the CCAA policy or regulations were intended to cover. CCAAs were to be used for purely beneficial projects and to provide conservation for the unlisted species, and in return for increasing the number of individuals, distribution or other conservation outcome; the permit holder would be provided incidental take for existing, ongoing activities. The proposed HCP has been developed to treat the currently unlisted LEPC as if it were a listed species and has provided sufficient background information, analysis of effects from proposed covered activities, and mitigation and monitoring requirements. Furthermore, the HCP would provide voluntary pre-listing conservation that may be used to evaluate the species' status in a future listing decision. Unlike a CCAA, an HCP developed for a non-listed species, such as the currently proposed HCP, would provide additional benefits for the LEPC by providing for enrollment, additional conservation, and a known regulatory environment post-listing. While our 2016 revised HCP handbook provides guidance that an ITP and supporting HCP include at least one ESA-listed</p> |

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| | | | animal species, we believe considering an HCP without a currently listed species, in this instance, is supported by the Conference Report to the 1982 Amendments that created HCPs which expressly considered both listed and unlisted species. Furthermore, we have determined that there are no specific regulations prohibiting the processing of an ITP for an unlisted species. The proposed HCP would still be required to meet all issuance criteria in section 10 of the act and 50 CFR 17.22(b) and 17.32(b) prior to an ITP being issued, therefore, processing this ITP application and HCP is consistent with all current regulations. The proposed HCP does not change States' management ability of the LEPC in that, per the 10(a)(1)(B) permit issuance criteria, project proponents seeking coverage under the HCP through CIs must comply with all applicable federal, state, and local statutes and regulations. In addition, just as 10(a)(1)(A) ESPs issued for CCAAs, the proposed ITP would not become effective until such time that the LEPC may be listed. Prelisting participation in the HCP is voluntary for participants and would continue to provide the affected States continued regulatory authority regarding wildlife species. | | | |
| ODWC | 89 | HCP | State Cooperation | No | No | Yes |
| | <p>Comment: ODWC is also concerned that this HCP process did not allow state agency participation. The state agencies are the current species management authority for lesser prairie-chicken (LEPC) and other trust species that will be affected by activities undertaken and by projects done in mitigation. Approving this application for ITP would set a dangerous and invalid precedent that would have negative effects for collaboration between state agencies, federal agencies and energy companies on other trust species in the future.</p> <p>Response: See response to comment 51 above</p> | | | | | |
| ODWC | 90 | HCP | State Cooperation | No | No | Yes |
| | <p>Comment: ODWC requests the opportunity to provide input and work with the USFWS and HCP applicant as outlined in our Section 6 agreement. This proposal clearly extends beyond the authority of the USFWS and moves into our realm of State species management. In addition, the current process will set the precedent of applicants bypassing state consultations or avoiding state regulations altogether by pursuing permitting with USFWS. Instead, applicants should begin by working with the states on practices such as conservation offsets and strategies to reduce impacts to species of greatest conservation need, as well as all other state trust species.</p> <p>Response: See responses to comments 51 and 88 above</p> | | | | | |
| ODWC | 91 | HCP | Updates to CHAT | Yes | Yes | Yes |
| | <p>Comment: At a minimum, ODWC requests a provision in this HCP that the Crucial Habitat Assessment Tool (CHAT) categories be re-evaluated at intervals through this HCP, as the information and habitat can and will change through time. This is critical, as the ODWC, as well as numerous other natural resource agencies, are constantly working to improve habitat for upland birds in the northwestern part of our state. As we make progress toward that goal, we would want those acres to be mitigated (currently evaluated via the use of the CHAT) at a truly compensatory rate to the habitat that is there at the time of a project initiation, not compensated at a rate commensurate with habitat that is there at this fixed point in time. In fact, to be of most benefit to LEPC conservation, this work needs to be done in close collaboration with the CCAA managed by the WAFWA, Oklahoma's Agricultural CCAA and a myriad of other conservation efforts happening under the umbrella of the LEPC Range-wide Conservation Plan. It is not clear at all from this proposal how close coordination will occur.</p> <p>Response: Edit made to the HCP to address the potential need for future updates to the CHAT. The updated language makes it clear that the USFWS and administrator will review any updates to the CHAT but changes will only be adopted if the USFWS and administrator agree.</p> | | | | | |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
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| ODWC | 92 | HCP | Mitigation | No | No | Yes |
| <p>Comment: ODWC also recommends changing the HCP project area map boundary to be more reflective of the actual current range of LEPC and the Estimated Occupied Range plus 10 miles (EOR+10). This would provide mitigation in areas that would currently benefit LEPC. Additionally, ODWC would advocate for any mitigation for impacts occurring in Oklahoma to be done within Oklahoma. We are proud of our work to conserve the LEPC and want to ensure that it remains a constant on the Oklahoma landscape.</p> <p>Response: The plan area is defined by the applicant and was based upon the USFWS LEPC Mitigation Service Areas map. The HCP outlines the process (by reference) which will be used to site mitigation lands to ensure they provide benefits to the LEPC. The HCP adheres to the same biological standards as other existing programs which are based upon the best available science that the LEPC exists in 4 ecoregions and thus impacts in given ecoregion will be offset with offsets in that same ecoregion. This is the same system that ODWC and the other State Wildlife Agencies within the range of the species developed and implemented within their range-wide conservation plan for the LEPC. The comment provides no biological justification to based mitigation service areas on state boundaries.</p> | | | | | | |
| ODWC | 93 | HCP | Regulatory Standards | No | No | Yes |
| <p>Comment: ODWC would request a definition and an explanation of differences between the HCP and a Candidate Conservation Agreement with Assurances (CCAA; included in the HCP as Alternative 1) added to the document. Of particular interest, ODWC's understanding of an HCP is that the conservation standards are lower when compared with a CCAA, which requires a net conservation benefit. Again, we are proud of our work and of our native resources and would prefer a process in which there is more than a "no net loss" philosophy, but instead an effort to make the final result an overall ecological uplift.</p> <p>Response: The assumption outlined within EA is that the if the applicant proposed a CCAA with the same covered activities and the same mitigation design that is included within the proposed HCP, that the impacts to the species and the conservation would be the same. We do acknowledge the different regulatory standards. The CCAA option was included as an alternative under NEPA for consideration. We simply include this as it is an option, the applicant could develop an application for a CCAA instead of an HCP so it should be considered. Simply including it as an alternative does not mean that it would by default meet the regulatory standards for a CCAA. In fact, within the EA it only states the impacts would be the same under either a CCAA or an HCP and that because it is assumed that the mitigation program would look the same that impacts under either program "would be fully offset". This is not a conclusion that an application for an EOS permit associated with a CCAA would meet issuance criteria.</p> | | | | | | |
| KDWPT | 94 | HCP | Statutory Authority | No | No | Yes |
| <p>Comment: The Application for the Incidental Take Permit goes beyond the statutory authority granted to the USFWS contained in 16 U.S.C. 35, Section 1531, et seq., and to rely on such a broad reading of a conference committee report from 1982 is in error; furthermore, KDWPT requests the USFWS to consider and adhere to the "Revised Interagency Cooperative Policy Regarding the Role of States in ESA Activities" 2016 (FWS-HQ-ES-2016-N017). The revised policy reflects a renewed commitment by the USFWS and State fish and wildlife agencies to work together in conserving America's imperiled wildlife. This policy explicitly expresses the need for the USFWS to consult with and solicit information from state agencies in determining which species are included in the ESA; use the expertise of State agencies in designing and implementing prelisting stabilization actions consistent with the States' authority for species and habitat to remove or alleviate threats so listing priority is reduced. The policy also encourages collaborative</p> | | | | | | |

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| | | | conservation planning with the State agencies across the range of the species and encourages the collaboration between USFWS and States on development and use of proactive conservation tools such as CCAAs and HCPs. Response: Applicants and the Service have been developing CCAAs that more and more are used as HCPs for unlisted species. While they meet the 2016 CCAA policy standard, they are based more on the minimize and mitigate strategy of a section 10(a)(1)(B) Incidental Take Permit. These are typically large plans that match an industry that impacts an unlisted species with landowners or mitigation providers that can implement the conservation strategy in the CCAA to cover future and ongoing impacts to the species, by setting up a conservation program that minimizes and mitigates the effects of the incidental take of the unlisted species. This arrangement is not what the CCAA policy or regulations were intended to cover. CCAAs were to be used for purely beneficial projects and to provide conservation for the unlisted species, and in return for increasing the number of individuals, distribution or other conservation outcome; the permit holder would be provided incidental take for existing, ongoing activities. The proposed HCP has been developed to treat the currently unlisted LEPC as if it were a listed species and has provided sufficient background information, analysis of effects from proposed covered activities, and mitigation and monitoring requirements. Furthermore, the HCP would provide voluntary pre-listing conservation that may be used to evaluate the species' status in a future listing decision. Unlike a CCAA, an HCP developed for a non-listed species, such as the currently proposed HCP, would provide additional benefits for the LEPC by providing for enrollment, additional conservation, and a known regulatory environment post-listing. While our 2016 revised HCP handbook provides guidance that an ITP and supporting HCP include at least one ESA-listed animal species, we believe considering an HCP without a currently listed species, in this instance, is supported by the Conference Report to the 1982 Amendments that created HCPs which expressly considered both listed and unlisted species. Furthermore, we have determined that there are no specific regulations prohibiting the processing of an ITP for an unlisted species. The proposed HCP would still be required to meet all issuance criteria in section 10 of the act and 50 CFR 17.22(b) and 17.32(b) prior to an ITP being issued, therefore, processing this ITP application and HCP is consistent with all current regulations. The proposed HCP supports States' management ability of the LEPC in that, per the 10(a)(1)(B) permit issuance criteria, project proponents seeking coverage under the HCP through CIs must comply with all applicable federal, state, and local statutes and regulations. In addition, just as 10(a)(1)(A) ESPs issued for CCAAs, the proposed ITP would not become effective until such time that the LEPC may be listed. Prelisting participation in the HCP is voluntary for participants and would continue to provide the affected States continued regulatory authority regarding wildlife species. | | | |
| KDWPT | 95 | HCP | State Cooperation | No | No | Yes |
| | Comment: KDWPT is highly concerned with the USFWS' lack of collaboration with and allowance for state fish and wildlife agencies in the process for which the ITP and HCP was developed. As of the release of this notice, the Lesser Prairie-Chicken is a state trust species and under the management of the state wildlife agency. The process for this ITP for HCP differs from how other HCPs and CCAAs have been completed in the past, while seeming to presume the re-listing of the species under the ESA. This is contrary to the regulatory authority in 50 CFR Sec 17.22(b) and 50 C.F.R. 17.32(b) as well as in direct contravention of the USFWS HCP Handbook, such as Section 3.1.2, among others. This process has denied States the ability to actively participate in the possible conservation outcomes for the species vis-a-vis new energy infrastructure – which may contribute to increased habitat fragmentation and suitable habitat abandonment. This process, in addition to usurping management authority from the States by the USFWS, increases the likelihood of industries bypassing State consultations and regulations in favor of working with USFWS, avoids working with the States on conservation offsets and minimization strategies for other non-game State trust species in the future, and sets poor precedence for collaboration and transparency concerning habitat conservation planning. | | | | | |

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| Response: See response to comments 51 and 88 above | | | | | | |
| KDWPT | 96 | HCP | State Cooperation | No | No | Yes |
| <p>Comment: At a minimum, the KDWPT would like the opportunity to coordinate with USFWS and HCP applicant, according to the process outlined in the HCP handbook and requests that the USFWS and HCP applicant consult further with KDWPT on any potential applicable laws and State concerns that would need to be included in the HCP. Please see HCP Handbook page 2-4 thru 2-5, State and local coordination: "Some States have laws similar to the ESA and prohibit take of State-listed species, or they have laws similar to NEPA, and most States have "sunshine laws" similar to the Freedom of Information Act. We recommend the appropriate State agency or agencies be involved early in the process to facilitate and streamline coordination and information exchange." Further, "Under section 6 of the ESA, States with adequate and active cooperative agreements are our partners in conserving listed species. The Services should discuss this partnership with prospective applicants and strive to accommodate State requirements in the development of HCPs". The KDWPT Section 6 agreement with the USFWS does include LEPC. And continuing on, "Our staff should also cooperate with States so that their concerns for non-ESA-listed species are considered in HCP planning. We should encourage applicants to include State-recommended conservation measures in HCPs. However, even if a proposed ITP application and its accompanying HCP complies with the ESA, the HCP still may not fully satisfy all State management goals in all instances. The applicant is required to comply with all other applicable Federal, State, and local laws."</p> <p>Response: See response to comment 51 above</p> | | | | | | |
| KDWPT | 97 | HCP | State Cooperation | No | No | Yes |
| <p>Comment: The HCP handbook at bottom of page 2-8 continuing on page 2-9 "Include state wildlife agencies early: Encourage the applicant to include effected State wildlife agencies at the beginning of the HCP development. The State wildlife agencies share management responsibilities for many species, can provide excellent scientific and technical expertise, and often are more familiar with the local politics and issues. Some States have their own ESA statutes and NEPA equivalents that we should consider during HCP development."</p> <p>Response: See response to comment 51 above</p> | | | | | | |
| KDWPT | 98 | EA | Regulatory Standards | No | No | Yes |
| <p>Comment: KDWPT is concerned about the lower conservation standard of this HCP relative to a CCAA. The USFWS states that "Implementation of the proposed LEPC habitat conservation measures are projected to result in no net loss of LEPC habitat." And for Alternative 1, the USFWS states, "We anticipate that this alternative would result in the same level of potential impacts to LEPC and the same level of LEPC conservation as what is proposed in the HCP for those enrolled prior to listing..." However, the Service's CCAA policy requires a net conservation benefit. We request that the Service clarify the benefits of the proposed HCP relative to a CCAA.</p> <p>Response: The assumption outlined within EA is that the if the applicant proposed a CCAA with the same covered activities and the same mitigation design that is included within the proposed HCP, that the impacts to the species and the conservation would be the same. We do acknowledge the different regulatory standards. The CCAA option was included as an alternative under NEPA for consideration. We simply include this as it is an option, the applicant could develop an application for a CCAA instead of an HCP so it should be considered. Simply including it as an alternative does not mean that it would by default meet the regulatory standards for a CCAA. In fact, within the EA it only states the impacts would be the same under either a CCAA or an HCP and that because it is assumed that the mitigation program would look the same that impacts under either program "would be fully offset". This is not a conclusion that an application for an EHS permit associated with a CCAA would meet issuance criteria.</p> | | | | | | |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS–R2–ES–2020–N125)**

| Commenter/ Organization | Comment Number | Applicable to EA/HCP/ or General | Topic | Change needed to HCP? | Edit needed to EA? | Completed |
|---|-----------------------|---|--------------|------------------------------|---------------------------|------------------|
| KDWPT | 99 | EA | General | N/A | N/A | Yes |
| <p>Comment: In summary, the KDWPT feels that the approach taken by the USFWS is without legal authority and bypasses the State and the KDWPT in favor of an HCP applicant's ability to work directly with the USFWS. At this time, the KDWPT recommends the No Action Alternative be the final rule and then further recommends that the applicant and USFWS seek the collaboration and participation from the State wildlife agency to move forward with pre-listing conservation program and ITP.</p> <p>Response: Comment noted, no response needed</p> | | | | | | |
| Jean Public | 100 | HCP | General | N/A | N/A | Yes |
| <p>Comment: you can put solar on the tops of roofs where humans have already built and that is power. you don't need to over the open land with solar at all. you can put wind towers in human habitats you don't need to covder nature with these towers to kill and maim and injure. this is just more human greed showing up to cover all nature with things that benefit only greedy profiteers. i am against this plan. totally it is an assault on nature. it is a killing plan for prairie chickens. it has no merit. we can do better. this comment is for the public record. please receipt. jean public jean public1@yahoo.com this is nothing but a thinly veiled assault on all open space it tries to give profiteers an excuse to kill all over on lands owned by the people of the USA.</p> <p>Response: Comment noted, no response needed</p> | | | | | | |
| Pioneer | 101 | EA | HCP vs. CCAA | No | No | Yes |
| <p>Comment: an HCP is not the correct conservation program for the LEPC. HPCs are not, nor have they ever been, intended as the appropriate conservation program for a non-listed species, such as the LEPC. Utilizing the HCP for a non-listed species is an ultra vires use under the Act and therefore, invalid. Alternatively, a Candidate Conservation Agreement with Assurances ("CCAA") is used to facilitate the conservation of proposed and candidate species, and species likely to become candidates to incentivize non-Federal property owners to implement conservation measures for declining or at-risk species.' For decades the Service has approached non-listed species in this manner and a departure from this practice is not warranted.</p> <p>Response: Applicants and the Service have been developing CCAAs that more and more are used as HCPs for unlisted species. While they meet the 2016 CCAA policy standard, they are based more on the minimize and mitigate strategy of a section 10(a)(1)(B) Incidental Take Permit. These are typically large plans that match an industry that impacts an unlisted species with landowners or mitigation providers that can implement the conservation strategy in the CCAA to cover future and ongoing impacts to the species, by setting up a conservation program that minimizes and mitigates the effects of the incidental take of the unlisted species. This arrangement is not what the CCAA policy or regulations were intended to cover. CCAAs were to be used for purely beneficial projects and to provide conservation for the unlisted species, and in return for increasing the number of individuals, distribution or other conservation outcome; the permit holder would be provided incidental take for existing, ongoing activities. The proposed HCP has been developed to treat the currently unlisted LEPC as if it were a listed species and has provided sufficient background information, analysis of effects from proposed covered activities, and mitigation and monitoring requirements. Furthermore, the HCP would provide voluntary pre-listing conservation that may be used to evaluate the species' status in a future listing decision. Unlike a CCAA, an HCP developed for a non-listed species, such as the currently proposed HCP, would provide additional benefits for the LEPC by providing for enrollment, additional conservation, and a known regulatory environment post-listing. While our 2016 revised HCP handbook provides guidance that an ITP and supporting HCP include at least one ESA-listed animal species, we believe considering an HCP without a currently listed species, in this instance, is supported by the Conference Report to the 1982 Amendments that created HCPs which expressly considered both listed and unlisted species. Furthermore, we have determined that there are no specific</p> | | | | | | |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS-R2-ES-2020-N125)**

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|------------------------------------|-----------------------|---|------------------|------------------------------|---------------------------|--|
| | | | | | | regulations prohibiting the processing of an ITP for an unlisted species. The proposed HCP would still be required to meet all issuance criteria in section 10 of the act and 50 CFR 17.22(b) and 17.32(b) prior to an ITP being issued, therefore, processing this ITP application and HCP is consistent with all current regulations. |
| Pioneer | 102 | EA | HCP vs. CCAA | No | No | Yes |
| | | | | | | Comment: Section 3 of the draft EA includes a discussion of alternatives to the Proposed Action as well as the impacts of both the Proposed Action and alternatives. Alternative 2, which involves the issuance of an ESP for a CCAA, is described as having the same avoidance, minimization, mitigation, monitoring, adaptive management, and reporting processes described in the HCP and is the appropriate mechanism for this species. The selection of Alternative 2 would adhere to the Service's own CCAA and HCP Guidelines by issuing an ESP that is supported by a CCAA for the LEPC, which is a non-listed species. Response: See response in line #104 |
| NMDGF | 103 | HCP | Costs | No | No | Yes |
| | | | | | | Comment: The Department's primary concern with implementing this HCP is the limited ability of the HCP administrator to ensure renewable energy project proponents' participation, given the higher mitigation costs associated with renewable energy development in higher quality LEPC habitats. We recognize that renewable energy projects, especially wind energy developments, operate within narrow margins of profitability that generally do not allow much flexibility for changing project footprints or moving individual wind towers. We are concerned that local site wind capacity and landowner participation will be the driving factor for siting new wind energy developments within LEPC range. Response: The decision of participation rests with the project proponent and is completely voluntary as stated in the HCP. The HCP outlines the steps needed to fully offset impacts realized from projects. Some projects located in high priority LEPC areas which have very little fragmentation will result in larger mitigation requirements but there are very large areas within the range of the LEPC that are highly fragmented and would require no mitigation in many instances and little mitigation in other instances. The point being that developers have direct control of mitigation costs by project siting decisions. |
| NMDGF | 104 | HCP | Plan Area | No | No | Yes |
| | | | | | | Comment: The proposed HCP Plan Area (HCP Figure 3, page 8) seems unnecessarily large, and includes portions of Trans-Pecos Texas almost to the Rio Grande border with Mexico. The DEA and HCP should clarify why the proposed HCP Plan Area includes significant amounts of land on the southern end that is not capable of being restored to LEPC habitat. Unless clearly justified in the HCP and DEA, the Department recommends only extending the HCP Plan Area slightly beyond the Estimated Occupied Range plus 10 miles (EOR+10) boundary. Response: The plan area is defined by the applicant and was based upon the USFWS LEPC Mitigation Service Areas map. The HCP outlines the process (by reference) which will be used to site mitigation lands to ensure they provide benefits to the LEPC and thus no such statement is needed. |
| NMDGF | 105 | HCP | Noise and Timing | No | No | Yes |
| | | | | | | Comment: The DEA on page 8 briefly mentions noise reduction as an avoidance and minimization measure during the LEPC breeding season (1 March to 15 July). The DEA and HCP should provide more specific information and identify maximum allowable decibels, the minimum allowable distance |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS–R2–ES–2020–N125)**

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| | | | from noise-generating equipment to suitable or occupied habitat, and the timing of noise limitations on a daily basis. Research supporting these recommendations should also be provided. Response: The HCP reviews the potential effects of covered activities (which include noise) on the LEPC. This measure is only included to ensure noise is minimized, not a requirement to avoid noise. | | | |
| NMDGF | 106 | HCP/EA | Build Out | No | No | Yes |
| | | | Comment: The DEA (p. 26) projects that more than 1.7 million acres of LEPC habitat could be developed by renewable energy production projects, transmission and distribution lines, and communication towers. A total cap of 500,000 acres has been determined by the Service for participation in the HCP and to be covered by Incidental Take Permit (ITP). The DEA and HCP should clarify how the cap of 500,000 acres was determined, and whether/how the additional 1.2 million acres of development within LEPC habitat will be mitigated. Response: While the HCP includes build out scenarios to project the total amount of potential build out from given industries the applicant used that information to evaluate the maximum number of mitigation acres that they could provide. The decision on the take cap is at the discretion of the applicant at the time of the proposal. Prior to a permitting decision the USFWS will do a jeopardy analysis to ensure the requested take does not jeopardize the continued existence of the species. Any additional development beyond that of the 500,000 acres is not covered by this HCP and thus no mitigation will occur through this HCP. | | | |
| NMDGF | 107 | HCP/EA | Mitigation | No | No | Yes |
| | | | Comment: The DEA (p. 27) states that only 50,000 acres of LEPC habitat will be preserved in the initial stages of HCP implementation, but up to 1,000,000 acres of LEPC habitat will be preserved or restored over the 30-year life of the HCP and ITP. The DEA and HCP should clarify how these preservation and restoration targets were determined, considering that the majority of lands within the HCP Plan Area is privately owned. The DEA and HCP should provide a strategy for how the additional 950,000 of preserved or restored acres will be secured. Response: The EA and HCP clearly state that the conservation will be delivered through approved conservation banks or other USFWS approved mitigation mechanisms. The 50,000 is in direct reference to the currently approved conservation banks. The remainder of the mitigation will be acquired as the need for mitigation arises. All mitigation is required to be in place prior to impacts. | | | |
| NMDGF | 108 | HCP | Build Out | No | No | Yes |
| | | | Comment: Page 40 of the HCP states that power line development within the HCP Permit Area is difficult to predict, but that potentially thousands of miles of transmission and distribution lines could be constructed within the 5-state region over the HCP and ITP term. The HCP then projects and quantifies impacts to LEPC of 1,000 miles of impact for power lines. The DEA and HCP should provide a discussion justifying the use of only 1,000 miles to estimate lost habitat value when as stated in the HCP, the potential exists for thousands of miles of power lines to be constructed within the HCP Plan Area to service renewable energy. Response: While the HCP states that there is the potential for thousands of miles to be constructed, that does not mean that all of those will impact the LEPC. The 1,000 miles of impact is an estimate based upon the knowledge of the applicant and his contractor to calculate take estimates. The important part of the estimate is not the process used but the actual final estimate. | | | |
| NMDGF | 109 | HCP/EA | Lek data | No | No | Yes |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS–R2–ES–2020–N125)**

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|------------------------------------|-----------------------|---|---|------------------------------|---------------------------|------------------|
| | | | <p>Comment: Page 47 of HCP includes eBird as a source to determine LEPC lek locations. We caution that eBird is not a reliable source for precise LEPC locations since observers will often not report the exact location of a lek. We recommend that eBird be used for general distribution information, but not for precise lek locations. Although mentioned as a possible source of information, the HCP and DEA should clearly state that the state wildlife agency should always be consulted to provide survey information for the project analysis area. The DEA and HCP should clearly state that project proponents must agree not to share sensitive lek location data with any entity other than the HCP Administrator, the Service, and the state wildlife agency.</p> <p>Response: The purpose of listing eBird is not to provide precise information but instead to see if there is information at a broad scale to determine if the area likely supports the LEPC. While we appreciate the point of reaching out to the State Fish and Wildlife Agencies to acquire lek locations, not all state agencies across the range would be willing to provide this data and thus this cannot be written as a requirement.</p> | | | |
| NMDGF | 110 | HCP | Mitigation | No | No | Yes |
| | | | <p>Comment: Page 56 of the HCP states that at least 50% of the mitigation offset for impacts to LEPC habitat covered under this HCP will be provided through static LEPC mitigation; however, the Applicant anticipates 95% of all mitigation provided under the HCP will be static. The HCP and DEA should clarify why dynamic mitigation set at 50%, but the HCP administrator only expects 5% of projects to be dynamic mitigation</p> <p>Response: While the HCP allows the flexibility for the use of term contracts to deliver permanent mitigation requirements for up to 50% of the required mitigation, in an effort of transparency the applicant stated that they do not intend to use this option very often due to cost and long-term liabilities associated with this type of mitigation. No further detail needed in HCP.</p> | | | |
| NMDGF | 111 | HCP | Strongholds | No | No | Yes |
| | | | <p>Comment: The Department supports the emphasis on protecting, enlarging and connecting LEPC strongholds as a primary strategy for this HCP. However, the DEA and HCP did not provide clarity regarding where these strongholds are located, how strongholds are determined, or how or if they are connected. The LPC Interstate Working Group has developed an effective targeting tool for identifying strongholds that is based on lek locations, habitat quality, long term protection from development, and certainty of habitat management. Should this HCP be implemented, we recommend that the Service and HCP administrator adopt and use this tool to assist with determining strongholds.</p> <p>Response: In 2012, the USFWS defined what a stronghold for the LEPC should contain. The proposed HCP uses the USFWS definition of a stronghold and the information contained within the referenced stronghold whitepaper to determine if an area meets the definition of a stronghold. The HCP does not have the ability to define spatially where potential strongholds will be as this will depend upon the level of development and the ability to develop agreements with landowners. The Service and HCP administrator will use all tools available to assist with developing strongholds.</p> | | | |
| NRECA | 112 | HCP | Impact Radii | No | No | Yes |
| | | | <p>Comment: Application of impact distances as a result of potential displacement should not set the standard for LEPC take authorizations in the future</p> <p>Response: The impact radii were defined using the best available science to account for impacts which rise to the level of take. Comment provides no additional details to support statement</p> | | | |
| NRECA | 113 | HCP | Mitigation Ratios | No | No | Yes |
| | | | Comment: Mitigation ratios depart from typical Service ratios for indirect impacts and may have a chilling effect on participation | | | |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
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|------------------------------------|-----------------------|---|-------------------|------------------------------|---------------------------|---|
| | | | | | | Response: The mitigation program was designed to fully offset impacts which rise to the level of take of the LPC. Comment provides no additional details to support statement |
| NRECA | 114 | HCP | Costs | No | No | Yes |
| | | | | | | Comment: High costs – particularly as a result of the mitigation ratios, credit fees, impact buffer and indirect effects analyses – are prohibitive for electric transmission, distribution, and other energy-related projects Response: Costs will directly related to the cost to fully offset the realized impacts to the LPC. Many projects do not impact the LPC and thus will require no mitigation. For projects in low priority areas which are already highly fragmented mitigation costs will be low. Project proponents have the ability to control mitigation costs by working with the administrator early in the project planning process. The earlier project proponents work with the administrator the greater the flexibility they have regarding siting. |
| NRECA | 115 | HCP | Impact Assessment | No | No | Yes |
| | | | | | | Comment: Impact distance framework would allow enrollment of only a small handful of projects Response: The number of projects which can be enrolled in the proposed HCP will be determined by the number of acres impacted by each project. The total take within the proposed HCP is capped at 500,000 acres |
| NRECA | 116 | HCP | Noise and Timing | No | No | Yes |
| | | | | | | Comment: Timing restrictions are applied too broadly Response: Comment provides no additional information to support statement. |
| NRECA | 117 | HCP | Impact Radii | No | No | Yes |
| | | | | | | Comment: The impact distances applied around transmission and distribution projects are overly restrictive without a clear explanation and limited scientific data to support such an increase from current Service practice Response: The impact radii identified in this proposed HCP were based upon the best available science and represent the area where effects rise to the level of take. Comment provides no additional detail to support statement |
| NRECA | 118 | HCP | BGEPA and NHPA | No | No | Yes |
| | | | | | | Comment: HCP requirements concerning the Bald and Golden Eagle Protection Act and National Historic Preservation Act are unnecessarily onerous Response: The Service can only issue ITPs to authorize incidental take resulting from activities that are otherwise lawful, per the 10(a)(1)(B) permit issuance criteria; therefore, project proponents seeking coverage under the HCP through CIs, must comply with all applicable federal, state, and local statutes and regulations. Providing a brief description of the planned BGEPA compliance approach assists the Administrator in ensuring compliance with permit issuance criteria for individual CIs with regards to BGEPA. With regards to NHPA, compliance with Section 106 of the NHPA, as amended, is required by law for all Federal undertakings. In context of this HCP, the federal undertaking is the approval of the HCP, issuance of an ITP, and the Applicant's issuance of subsequent CIs under the ITP. The NHPA process identified in the HCP ensures that the Service is in compliance with NHPA for this HCP and all subsequent CIs. |

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| NRECA | 119 | HCP | Additional NEPA and ESA Requirements | No | No | Yes |
| Comment: Service should clarify that additional review under the NEPA and ESA Section 7 will not be required Response: If approved, no additional NEPA or Section 7 analysis would be required for projects enrolling under this HCP for coverage for the LEPC. As noted in the HCP a requirement for enrollment within this HCP is that the participant provides that other listed species an Information, Planning and Consultation (IPaC) assessment of ESA-listed species likely to occur within the project footprint and, if applicable, documentation of the project-specific approach for compliance with ESA for species not covered under this HCP, BGEPA and NHPA | | | | | | |
| NRECA | 120 | HCP | Funding | No | No | Yes |
| Comment: Funding assurances required of CI applicants are onerous and beyond that required under similar programmatic HCPs Response: As stated in the HCP "USFWS must issue an ITP if it finds that the Applicant, among meeting other criteria, "will ensure that adequate funding for the plan will be provided," including funding that will be available to implement steps to "monitor, minimize and mitigate the impacts of the taking." (ESA Section 10(a)(2)(B)(iii); see also 50 CFR 17.22(b)(2)(i)(C))." The required funding sources and assurances within the proposed HCP are what the applicant determined as necessary to satisfy these obligations. | | | | | | |
| NRECA | 121 | HCP | Costs | No | No | Yes |
| Comment: All estimates of costs and fees for COI applicants should be provided up front to provide for greater transparency and planning purposes Response: Because the HCP is designed to be a market based program, the costs will change with market forces and thus up front costs cannot be provided in the HCP. Interested parties will need to contact the administrator to obtain accurate cost estimates. | | | | | | |
| NRECA | 122 | HCP | Costs | No | No | Yes |
| Comment: Many fees with the program appear subject to significant swings in cost and should be capped to reduce burdens on COI applicants Response: The HCP is designed to be a market based system and thus cost caps are not appropriate. Cost caps will limit the ability of the administrator in the future to ensure the program is performing to the necessary standards. | | | | | | |
| NRECA | 123 | HCP | Administration | No | No | Yes |
| Comment: HCP administration should be managed so as not to place additional burdens on COI applicants. Response: As designed the HCP balances the needs to ensure compliance while ensuring to minimize administrative burden on the participants. | | | | | | |
| NRECA | 124 | HCP | Administration | No | No | Yes |
| Comment: HCP advisory board should include industry representation Response: The HCP currently states "The Advisory Board is intended to consist of voluntary representation from non-government wildlife management groups such as the NAGP, Pheasants Forever, and The Nature Conservancy; species resource experts from academia from land-grant universities; USFWS LEPC biologists; state wildlife departments; and industry members" | | | | | | |
| NRECA | 125 | HCP | CI Breach | No | No | Yes |

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| NRECA | 126 | HCP | General | No | No | Yes |
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| NRECA | 127 | HCP | Access | Yes | No | Yes |
| | | | | | | |
| | | | | | | |
| NRECA | 128 | HCP | Performance | No | No | Yes |
| | | | | | | |
| | | | | | | |
| NRECA | 129 | HCP | Project Evaluation | No | No | Yes |
| | | | | | | |
| | | | | | | |
| NRECA | 130 | HCP | Plan Area/Permit Area | No | No | Yes |
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| | | | | | | |
| TPWD | 131 | HCP | Conservation | Yes | Yes | Yes |
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|--|--------------------------------|---|---------------------|------------------------------|---------------------------|------------------|
| TPWD | 132 | EA | General | No | Yes | Yes |
| Comment: EA Section 4.1.3 The state status for red-crowned parrot in Table 4-2 (p. 20) is incorrect. That status is shown as "Not Listed" but should show "State Threatened" for Texas. Response: Correction will be made to EA | | | | | | |
| TPWD | 133 | EA | General | No | Yes | Yes |
| Comment: EA Attachment B - State listing status incorrect for many of the Texas species, letter provides corrections Response: Corrections will be made to EA | | | | | | |
| SEAFWA | 134 | HCP | Statutory Authority | No | No | Yes |
| Comment: The Association remains deeply concerned by this proposal, which in our view, represents an unprecedented overreach of federal authority and that this action could detrimentally affects states' ability to manage state trust species. Response: Applicants and the Service have been developing pre-listing CCAAs that more and more are used as HCPs for unlisted species. While they meet the 2016 CCAA policy standard, they are based more on the minimize and mitigate strategy of a section 10(a)(1)(B) Incidental Take Permit. These are typically large plans that match an industry that impacts an unlisted species with landowners or mitigation providers that can implement the conservation strategy in the CCAA to cover future and ongoing impacts to the species, by setting up a conservation program that minimizes and mitigates the effects of the incidental take of the unlisted species. This arrangement is not what the CCAA policy or regulations were intended to cover. CCAAs were to be used for purely beneficial projects and to provide conservation for the unlisted species, and in return for increasing the number of individuals, distribution or other conservation outcome; the permit holder would be provided incidental take for existing, ongoing activities. The proposed HCP has been developed to treat the currently unlisted LEPC as if it were a listed species and has provided sufficient background information, analysis of effects from proposed covered activities, and mitigation and monitoring requirements. Furthermore, the HCP would provide voluntary pre-listing conservation that may be used to evaluate the species' status in a future listing decision. Unlike a CCAA, an HCP developed for a non-listed species, such as the currently proposed HCP, would provide additional benefits for the LEPC by providing for enrollment, additional conservation, and a known regulatory environment post-listing. While our 2016 revised HCP handbook provides guidance that an ITP and supporting HCP include at least one ESA-listed animal species, we believe considering an HCP without a currently listed species, in this instance, is supported by the Conference Report to the 1982 Amendments that created HCPs which expressly considered both listed and unlisted species. Furthermore, we have determined that there are no specific regulations prohibiting the processing of an ITP for an unlisted species. The proposed HCP would still be required to meet all issuance criteria in section 10 of the act and 50 CFR 17.22(b) and 17.32(b) prior to an ITP being issued, therefore, processing this ITP application and HCP is consistent with all current regulations. The proposed HCP does not change States' management ability of the LEPC in that, per the 10(a)(1)(B) permit issuance criteria, project proponents seeking coverage under the HCP through CIs must comply with all applicable federal, state, and local statutes and regulations. In addition, just as 10(a)(1)(A) ESPs issued for CCAAs, the proposed ITP would not become effective until such time that the LEPC may be listed. Prelisting participation in the HCP is voluntary for participants and would continue to provide the affected States continued regulatory authority regarding wildlife species. | | | | | | |
| SEAFWA | 135 | HCP | Statutory Authority | No | No | Yes |
| October 2021 | U.S. Fish and Wildlife Service | | | | | E-41 |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
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| | | | <p>Comment: Further, we are concerned that, as proposed, the Service’s ITP and HCP constitute an unlawful exercise of federal authority over the lesser prairie chicken, an undesirable practice that could be extended to other state trust species for which the Service has no management authority and which we find deeply disconcerting.</p> <p>Response: See Response in line #137</p> | | | |
| SEAFWA | 136 | HCP | Statutory Authority | No | No | Yes |
| | | | <p>Comment: The Association opposes the Service’s issuance of this ITP and the supporting HCP solely for the LEPC because it is not a federally listed species. It is our understanding and practice that ITPs/HCPs are intended first for species listed under the ESA, not solely for state trust species.</p> <p>Response: See Response in line #137</p> | | | |
| SEAFWA | 137 | HCP | Statutory Authority | No | No | Yes |
| | | | <p>Comment: We are deeply concerned by the Service’s proposal because it marks an unprecedented departure from historical and current practices as well as the authorities provided in statute by the ESA and from the Service’s own policies and guidance.</p> <p>Response: See Response in line #137</p> | | | |
| SEAFWA | 138 | HCP | Statutory Authority | No | No | Yes |
| | | | <p>Comment: The Service’s HCP handbook states that the Service “cannot approve an HCP without at least one listed animal species[.]”¹ We are troubled by this proposal since it appears to be a direct departure from current handbook and current practice. Consequently, the Association finds this proposed ITP/HCP inconsistent with Service policies, guidance, and practices, and it is a misinterpretation of the congressional intent that established the HCPs. We agree with the traditional interpretation and use of ITP/HCPs that they must address first the needs of at least one federally listed species before any non-listed species may be included.</p> <p>Response: See Response in line #137</p> | | | |
| SEAFWA | 139 | HCP | Statutory Authority | No | No | Yes |
| | | | <p>Comment: From our perspective, Section 10(a)(1)(B) of the ESA only authorizes the Service to grant an ITP for a species that is listed as threatened or endangered. There is no clear authority within the ESA granted to the Service for making eligible a state trust species nor does it provide for a pre-listing ITP or HCP.² Therefore, we see no legal authority for the issuance of this ITP/HCP for a state trust species.</p> <p>Response: See Response in line #137</p> | | | |
| SEAFWA | 140 | HCP | Statutory Authority | No | No | Yes |
| | | | <p>Comment: We have concerns with the Service’s assertion, based on their interpretation of the 1982 conference report, that the Service has the authority to grant ITPs/HCPs solely for non-listed species. We cannot identify a statutory mechanism within the ESA that grants the Service such authority as asserted in this ITP/HCP for a state trust species. However, if such legal opinion exists, we request the Service provide the states the legal justification and interpretation of such authority.</p> <p>Response: See Response in line #137</p> | | | |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS-R2-ES-2020-N125)**

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|--|-----------------------|---|----------------------|------------------------------|---------------------------|------------------|
| SEAFWA | 141 | HCP | Statutory Authority | No | No | Yes |
| <p>Comment: The Service states that this proposal "... supports States' management ability of the unlisted species similar to CCAAs ...", but the Association is concerned that this ITP/HCP could conflict with states' conservation plans for state trust species, especially if the range states have not been involved in the development, vetting, and crafting of the ITP and HCP. It is plausible that without appropriate review and modifications incorporated on behalf of the affected states, the proposed actions under the ITP/HCP could lead to unintended consequences for the conservation and management of numerous state trust species across the landscape.</p> <p>Response: See Response in line #137</p> | | | | | | |
| SEAFWA | 142 | HCP | Regulatory Standards | No | No | Yes |
| <p>Comment: The Association is concerned about the Service's assertion and implication that an HCP and a CCAA are equal in their levels of conservation effort and benefits. There are substantial differences of conservation effort between pre-listing CCAAs and post-listing HCPs. An ITP provides for the immediate take of a species and the HCP provides mitigation measures for such take; whereas, a CCAA is required to provide a net conservation benefit to the species. These actions and efforts are not equal and have never been viewed as such since Congress enacted the 1982 ESA amendments.</p> <p>Response: The assumption outlined within EA is that if the applicant proposed a CCAA with the same covered activities and the same mitigation design that is included within the proposed HCP, that the impacts to the species and the conservation would be the same. We do acknowledge the different regulatory standards. The CCAA option was included as an alternative under NEPA for consideration. We simply include this as it is an option, the applicant could develop an application for a CCAA instead of an HCP so it should be considered. Simply including it as an alternative does not mean that it would by default meet the regulatory standards for a CCAA. In fact, within the EA it only states the impacts would be the same under either a CCAA or an HCP and that because it is assumed that the mitigation program would look the same that impacts under either program "would be fully offset". This is not a conclusion that an application for an EOS permit associated with a CCAA would meet issuance criteria.</p> | | | | | | |
| SEAFWA | 143 | HCP | State Cooperation | No | No | Yes |
| <p>Comment: We encourage the Service to engage in full partnership consultation with the affected states and to work cooperatively to identify a mutually agreeable path forward that does not impinge on states' authority to manage state trust species for the benefit of the public.</p> <p>Response: See response to comment 51 above</p> | | | | | | |
| TNC | 144 | HCP | Avoidance | No | No | Yes |
| <p>Comment: Avoidance should be a key part of the mitigation strategy of this HCP. TNC recognizes that intact habitat represents the only real certainty to LEPC and that all development and subsequent mitigation comes with some risk of deficit to the population. This risk results from an assumption of habitat restoration or protection, and a population's response to those conservation efforts; maintenance of existing intact habitat requires no such assumption. A net conservation benefit can only be achieved if project development is precluded from the highest quality LEPC habitats.</p> <p>Response: We agree that avoidance is the priority, this HCP was designed to cover impacts where complete avoidance is not possible. An HCP does not have to provide a "net conservation benefit", instead an HCP must minimize and mitigate to the maximum extent practicable. This HCP was designed to fully offset the covered impacts.</p> | | | | | | |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS-R2-ES-2020-N125)**

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|--|-----------------------|---|--------------|------------------------------|---------------------------|------------------|
| TNC | 145 | HCP | Mitigation | No | No | Yes |
| <p>Comment: TNC only supports mitigation that will provide a net conservation benefit. The HCP should explicitly state a long-term goal of 1 acre of preservation offset and 1 acre of restoration offset for every acre impacted by renewable energy development. The HCP appears ambiguous about the ultimate offset ratio.</p> <p>Response: An HCP does not have to provide a "net conservation benefit", instead an HCP must minimize and mitigate to the maximum extent practicable. This HCP was designed to fully offset the covered impacts. The reason for some ambiguity is that the required offsets will be determined by using a the tiered mitigation system. So in the end, we are looking at an average of a 2:1 mitigation ratio but in reality the exact mitigation ratio for a project will be determined by the location of each enrolled project which cannot be predicted.</p> | | | | | | |
| TNC | 146 | HCP | Mitigation | Yes | Yes | Yes |
| <p>Comment: Further, the HCP appears to use “preservation” instead of “enhancement”. The HCP introduction in the Federal Register notes that, “On average, for every acre of LEPC habitat impacted, 2 acres of perpetual LEPC habitat conservation would be required. Of those 2 acres, 1 acre would consist of restoration and the other acre would consist of enhancement.” However, on page 52, it states, “Secure one acre of restoration for every acre of potentially suitable LEPC habitat impacted after the fifth year of the ITP term.” And on page 57, it states, “Therefore, it is expected that initially mitigation will primarily occur using habitat preservation, with a goal of implementing a minimum of one acre of restoration for every acre of impacts beginning no later than the fifth year of the ITP term.” It is unclear if the term “preservation” and “enhancement” are referring to the same result. Permanently conserved habitat (i.e. areas of “preservation credits”) requires management in order to be maintained or enhanced, and habitat enhancement or restoration is required for uplift. Additional clarity is needed explain whether the action is “preservation”, “enhancement”, or “restoration” and how those actions relate to ITP compliance.</p> <p>Response: The EA and HCP will be updated to ensure clarity around "enhancement" and "preservation". In short they have been used interchangeably and are meant to represent the same thing.</p> | | | | | | |
| TNC | 147 | HCP | Mitigation | No | No | Yes |
| <p>Comment: TNC has worked in the permanent protection realm for decades, and securing multiple 25,000-acre+ easements or complexes of easements to establish strongholds may be quite challenging. This HCP should outline the applicant’s strategy(ies) to achieve these biological goals, to assure it can be obtained.</p> <p>Response: As outlined in the HCP the applicant will follow the USFWS guidance on permanent mitigation for the LEPC to ensure that conservation sites are strategically located. By strategically locating conservation cites this will allow for the build out of strongholds.</p> | | | | | | |
| TNC | 148 | HCP | Mitigation | No | No | Yes |
| <p>Comment: In addition, further scientific investigation is essential to better define and more efficiently implement strongholds. The USFWS Conservation Needs of the Lesser Prairie Chicken (USFWS 2012a) “white paper” considers a minimum of 25,000 acres of high-quality habitat and 6 leks for stronghold suitability. In many landscapes, 25,000 acres and 6 leks is unlikely to provide long-term certainty for LEPC. The appropriate spatial configuration and continuity requirements of permanently conserved, high quality habitat comprising strongholds, and their connectivity corridors is largely unknown. We understand the necessity of this HCP to be implemented based on the current science; however, because of the foundational role of</p> | | | | | | |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS-R2-ES-2020-N125)**

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| | | | strongholds in maximizing offsets to impacts through this HCP, a priority of this HCP should be to fund the development of scientifically robust stronghold and connectivity corridor development strategies. Response: The USFWS agrees that on its own 25,000 acres with 6-10 leks will not provide for viable LEPC populations. The stronghold concept was only meant to be one piece to the larger conservation effort for the LEPC. This HCP is designed to help provide progress towards stronghold goals and provide for restoration actions within, around, and between strongholds. The HCP alone will not conserve the LEPC, but instead will provide only the amount of conservation needed to fully offset the covered impacts. The burden of "LEPC recovery" is not the responsibility of the potential participants of an HCP. | | | |
| TNC | 149 | HCP | Mitigation | No | No | Yes |
| | Comment: The HCP allows for up to 50% of the offsets to go toward term-based, dynamic mitigation that have a remaining contract of no less than 15 years. TNC recognizes that because of high cost and participation limitations, a strategy based solely on permanent conservation at static locations is not likely to achieve adequate scale. However, other conservation programs (e.g. Farm Bill, state agency programs), are likely to continue to play a substantial role in providing term-based habitat options. Therefore, adaptive management of this HCP should consider whether the sum of range wide conservation efforts are achieving certainty for this species. If 50% of the offsets in this HCP are the only functional means of funding permanent Conservation Easements (static conservation), an increase to 100% might be warranted. Response: The HCP was designed to fully offset the covered impacts. The HCP is not required to evaluate existing conservation efforts and attempt to fill existing voids in conserving the LEPC. Instead, the requirement for an HCP (among other issuance criteria) is to fully offset the impacts from covered activities. | | | | | |
| TNC | 150 | HCP | Mitigation | No | No | Yes |
| | Comment: TNC understands the time it takes to secure permanent conservation. However, given that the 4 existing Conservation Bank sites (referred to as "highest value strategic conservation sites") presumably already have robust LEPC populations and habitat, then likely little to no mitigation uplift is available at those sites. If mitigation dollars are only used for "preservation" at these sites, then landowners will be compensated for permanently securing the good management they're already doing, but no population uplift for LEPC will occur. TNC would typically find this problematic for a mitigation strategy. However, in the case of LEPC, a wide-ranging, private land species, TNC understands the importance of demonstrating successful models of perpetual conservation, especially stronghold development strategies that are focused on high quality habitat. If successful, this model could expand conservation engagement on working lands. TNC also recognizes that USFWS-approved Conservation Banks are subject to rigid performance standards in perpetuity, however, the HCP doesn't appear to detail a clear path between these standards and adequate habitat uplift through mitigation. In addition to preservation, property-specific, science-supported criteria for maintenance of enhancement is critical, and likely a part of approved USFWS Conservation Banking management plans. Those plans are not explicitly outlined by the HCP. Instead of the absence of restoration offsets (1 of the 2 acres) for the first 5 years, could restoration offsets somehow be back-end loaded so that they continue to accumulate until appropriate restoration sites are secured, such that over the 30-year term of the HCP, a 1 acre preservation offset and 1 acre restoration offset for every acre impacted is maintained? Although permanent conservation of high-quality habitat through conservation easements should be the highest priority for securing long-term certainty for the species, it does not offset new impacts. TNC supports a 30-year average 2:1 offset to impact acreage ratio, where every offset acre is permanently conserved, high quality habitat that has been enhanced or restored. | | | | | |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS-R2-ES-2020-N125)**

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| | | | <p>Response: If all mitigation efforts were to be focused on conserving only existing high quality LEPC habitat, this HCP would not meet issuance criteria as those efforts alone would not adequately offset the effects of habitat loss and fragmentation. The HCP also requires restoration efforts to occur. The mitigation system is designed to provide one acre of restoration for every one acre lost to development and then an additional acre of habitat management. Additionally, not acres on the existing approved bank locations currently high quality LEPC habitat. The USFWS estimates that about 20-30% of those acres are impacted and would require restoration efforts for credit release. These lands which are approved as conservation banks will remain as "working lands" as part of the management plan for each property includes cattle grazing operations. The detail necessary to understand the amount of uplift which will be provided is incorporated by reference as the 2014 USFWS guidance document outlines how properties will be evaluated to ensure they are sited, have funding mechanisms in place, and are managed for the benefit of the LEPC. As discussed previously, for the first 5 years some of the offset units will be provided via restoration credits but they may not meet the 1 acre of restoration for every 1 acre lost. As the first 50,000 acres of offset units are utilized, the USFWS will work with the applicant to ensure the mitigation provided fully offsets the impacts at the project level and the permit level. The USFWS understands the importance of restoration and will be working with the applicant to ensure restoration levels are adequate to fully offset all covered impacts.</p> | | | |
| TNC | 151 | HCP | Mitigation | No | No | Yes |
| | | | <p>Comment: The HCP should also provide an adequate monitoring and adaptive management framework that ensures these goals are being met. Explicit goals and strategies are critical for ensuring compliance with the Incidental Take Permit (ITP). The HCP fails to outline explicit goals and strategies within the adaptive management framework, only stating that if a biological goal is not obtained, the applicant will work with the USFWS to find a suitable solution. A more robust strategy should be developed.</p> <p>Response: The biological goals within this HCP are tied to the mitigation framework and there is adequate monitoring in place to ensure that the mitigation framework is fully offsetting all permitted impacts. Due to the uncertainties associated with future participation within this HCP, it is not possible or realistic to try to predict all future possible outcomes and develop responses to each. Instead, the USFWS is supportive (in this case) of this approach as we believe it provides the USFWS with the flexibility needed to ensure that the HCP is meeting all requirements.</p> | | | |
| TNC | 152 | HCP | Mitigation | No | No | Yes |
| | | | <p>Comment: P.34 - While the population-level implication of direct impacts leading to take of individuals is less well established than the loss of suitable habitat as described above, take of individual LEPC could also potentially occur through collision with anthropogenic structures when flying or running. Impacts to individual LEPC could also potentially result from crushing by livestock or vehicles or other motorized equipment during construction, operations or mitigation maintenance activities. Comment: The limiting factor for LEPC is nesting and brooding habitat, and woody invasion. While measures to reduce disturbance, harassment, and individual mortality are encouraged, the HCP's focus must remain on avoidance of impacts on intact habitat, and when not possible, minimization and habitat mitigation that results in net conservation benefits.</p> <p>Response: Agree. The primary focus of the HCP as currently designed is on accounting for impacts to habitat by covered activity.</p> | | | |
| TNC | 153 | HCP | Mitigation | No | No | Yes |
| | | | <p>Comment: P. 46 - Step 2: Conduct an initial desktop analysis of effects of the proposed action(s). Comment: For wind energy development projects, the initial and subsequent desktop analyses should include the use of TNC's Site Wind Right map to determine if the project is in a low risk area for LEPC impacts.</p> | | | |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS-R2-ES-2020-N125)**

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|------------------------------------|--|---|--------------|------------------------------|---------------------------|------------------|
| | Response: The purpose of the desktop analysis to account for the effects of wind energy development spatially and the site wind right map is not appropriate for this step. | | | | | |
| TNC | 154 | HCP | Mitigation | No | No | Yes |
| | <p>Comment: P. 51 - The purpose of this HCP is to minimize and fully offset the impact to LEPC from the development and operation of wind, solar, power line, and communication tower projects. This is primarily accomplished through contributions towards the establishment of strongholds in the form of habitat conservation banks throughout the LEPC range to reduce the threat of habitat loss and fragmentation. Wind, solar, power line, and communication tower development in the Permit Area will drive the establishment and protection of strongholds through the Implementation of USFWS approved mitigation. As described above, the establishment of strongholds is necessary to meet the goals and objectives of LEPC conservation throughout the species' range (USFWS 2012a). Comment: If a project is permitted to take within an existing LEPC stronghold, even with 2.5:1 mitigation at another stronghold or at the edge of the impacted stronghold, then the impact is not minimized or fully offset.</p> <p>Response: To meet the definition of a stronghold, as defined by the USFWS, the property must have "long-term protection in place to address the species' relatively short life span, low nest success, high annual mortality, low recruitment, and high juvenile mortality. In the context of the lesser prairie-chicken, 10 to 15 year timeframes may be too short a period due to the species' life-history traits. In Kansas, implementation of the CRP has resulted in favorable habitat conditions for the lesser prairie chicken due to landscape scale planting of native grasses (and forbs) thereby allowing for lesser prairie-chicken expansion and reoccupation of 16 counties north of the Arkansas River (Service 2010). This management has been beneficial for the lesser prairie-chicken population as a whole, but long-term certainty regarding protection of native habitat strongholds is recommended in order to ensure future survival and conservation of the species. Furthermore, most "split estate" lands, where surface rights and mineral rights are in different ownership, will not meet the definition of a stronghold. Both surface and mineral rights as well as best management practices must be addressed appropriately in order to avoid future developments that could reduce the quality of the stronghold." So for an area to qualify for a stronghold there must be protections in place to preclude the threats and thus we do not expect any covered activities within this HCP to be developed on strongholds.</p> | | | | | |
| TNC | 155 | HCP | Mitigation | No | No | Yes |
| | <p>Comment: P.55 - Mitigation costs, such as mitigation bank credits, will be determined by the free-market prices established by mitigation entities at the time the impact occurs, which could fluctuate over the ITP term. In addition to Enrollment and Administration Fees, which will be paid by CI-holders (see Chapter 8), mitigation fees will cover the conservation and management of mitigation lands to fully offset the impacts of CI-holder enrolled projects on LEPC in perpetuity. P.76 - The purchase price of each Mitigation Credit will be set by the mitigation provider and will include all costs incurred by the mitigation provider including the qualifying acreage, all long-term operations and maintenance costs, performance monitoring and reporting (by the mitigation entity), and a non-wasting endowment to ensure mitigation is in place and meeting performance criteria in perpetuity. Comment: P.73 - Table 6 and the final Table E1 report that the total annual cost for implementing the HCP is approximately \$80M (i.e. \$2.4B over 30 years). Assuming an average 2:1 offset to impact ratio, and that the HCP ends up covering 500,000 acres of impacts (1,000,000 acres offsets), this is predicting an overall cost of \$2,400/ac. TNC recognizes the high cost of permanent conservation, especially when coupled with permanent management of high-quality habitat. However, this level of per-acre investment results in a trade-off of adequate spatial scope by addressing only 3% of the acres of potentially suitable habitat within the Plan Area.</p> | | | | | |

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| | Response: The HCP is required to recover LEPC populations but instead is only required to meet issuance criteria for an HCP. The HCP is not designed to spread conservation over the greatest number of acres but instead is designed to fully offset permitted impacts by providing conservation that fully offsets those impacts both spatially and temporally. | | | | | |
| TNC | 156 | HCP | Mitigation | No | No | Yes |
| | <p>Comment: P.55 - Under this HCP, a primary mitigation strategy is to create LEPC strongholds that will be funded, in part, from the mitigation purchased by HCP CI-holders. Mitigation will follow the USFWS LEPC Mitigation Guidance (USFWS 2014c). However, whereas the LEPC Mitigation Guidelines indicate a preference for mitigation to occur on contiguous properties of at least 9,000 ac within a landscape meeting specific criteria, mitigation under this HCP can occur on any USFWS-approved mitigation project within the HCP Plan Area at the requisite size of the mitigation transaction, even if less than 9,000 ac. Comment: Given the large size of the HCP Plan Area relative to the LEPC EOR, this could result in spatially ineffective mitigation. Although USFWS LEPC Mitigation Guidance likely includes such criteria, it is unclear in the HCP proposal whether or how the HCP will ensure that smaller mitigation parcels will be ecologically linked to strongholds or other areas of high-quality habitat under permanent conservation.</p> <p>Response: Within the referenced USFWS 2014 guidance, which is incorporated by reference here, outlines the process which the USFWS will use to ensure that mitigation parcels are located in areas to meet the needs for the species when evaluating proposed mitigation for approval (and thus inclusion within this HCP).</p> | | | | | |
| TNC | 157 | HCP | Mitigation | No | No | Yes |
| | <p>Comment: P.57 - Mitigation will initially be preferentially provided through the protection of existing LEPC habitat at a landscape scale that meet the LEPC Mitigation Guidelines (USFWS 2014c). The HCP Administrator will work with USFWS to first meet the goal of preserving habitat that has been approved for preservation by the USFWS (50,000 ac) by placing these ac, if available, into strongholds or connectivity corridors prior to other potentially available mitigation parcels (Biological Objective 1c), within the constraints of the landscape operation (i.e., on the ground conditions). P.2- Under the LEPC PCBA, LEPC Conservation LLC provides conservation sites for the LEPC in several strategic locations across the species' Estimated Occupied Range (EOR; Figure 1, Section 5.3)" P.2 - The Applicant will work only with property owners who voluntarily enroll lands in the LEPC PCBA or other mitigation projects, or mitigation entities that commit to implementing equivalent management measure to conserve the LEPC. All conservation actions will meet the minimum criteria outlined within this HCP. Comment: It appears that there are currently 4 Conservation Banks with a total of 38,200 acres available, with no banks located in the Sand Sagebrush Prairie Region. Historically, this region supported some of the highest LEPC densities on record; it is currently reported to having only approximately 0.5% of the extant LEPC population (Nasman et al. 2020). Because the Applicant (LEPC Conservation LLC) has the only approved Conservation Banks, and through this HCP, would hold the only ITP, how will USFWS ensure that the Applicant works with other "mitigation entities that commit to equivalent management" to maximize benefits to LEPC, especially in areas where conservation is most critical, strategic, and most effective in offsetting impacts?</p> <p>Response: This is accurate, there are currently no approved conservation banks within the Sand Sagebrush Ecoregion. The HCP requires that all impacts be offset with conservation within the same service area (ecoregion). This means that no impacts can be included under this HCP in the Sand Sagebrush Ecoregion until there are adequate offset units in place. The HCP outlines the minimum standards necessary which conservation lands must meet to provide offsets within this HCP (primarily by referencing the USFWS standards for permanent mitigation lands for the LEPC) and thus the applicant will</p> | | | | | |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS-R2-ES-2020-N125)**

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| | | | | | | be required to work with other mitigation providers to ensure that they are committed to meeting the standards for inclusion prior to any credit sales. Additionally, any mitigation included under this HCP must be approved by the USFWS and thus there are multiple backstops in place to ensure all mitigation meets the appropriate standards. |
| TNC | 158 | HCP | Mitigation | No | No | Yes |
| | | | | | | Comment: P. 59 - Under this HCP, the conservation value of the mitigation is expected to fully offset the lost value of the impacted habitat by mitigating overall project impacts at ratio greater than 1:1 (Section 5.3.3.1), with increasing mitigation required for impacts to higher quality LEPC habitat. Comment: Again, Impacts will only be fully mitigated, with an overall net conservation increase, if project development is precluded from the highest quality LEPC habitats. Response: The HCP is designed to accurately account for impacts rising to level of take and fully offset those impacts regardless of the quality of habitat which is being impacted using the best available science. If impacts occur in higher priority areas, the HCP uses tiered mitigation ratios to increase the required offsets are the priority of LEPC habitat increases. This will result in additional offset required for higher priority LEPC lands to fully offset impacts. |
| TNC | 159 | HCP | | Yes | Yes | Yes |
| | | | | | | Comment: P.66 - In addition, as new science emerges, the HCP will re-evaluate the impact radii of project features used to assess project impacts and update accordingly. This could increase or decrease the mitigation burden for new projects, and any adjustments made to the impact analysis will be reflected throughout the HCP. Comment: TNC recognizes that this HCP has likely been under development for multiple years; however, TNC recommends updating the HCP to reflect the best available science. The literature review, including impact distances listed on P.42, appears to exclude relevant publications, including: cites several publications Response: We will update this section to provide a summary of the science and then reference the recently completed LEPC SSA. |
| TNC | 160 | HCP | Build Out | No | No | Yes |
| | | | | | | Comment: P. 66 - If the total amount of land within potentially suitable NLCD classes (i.e. grassland/herbaceous or hay/pasture) decreases such that the buildout increases to affect greater than 40% of land within potentially suitable NLCD classes, as measured at the time of ITP issuance (see Section 4.2), then mitigation requirements will increase to bring the total ratio of buildout to available land within potentially suitable NLCD classes to 40%. Comment: As read, this implies that a 40% loss of potentially suitable habitat in the LEPC EOC is acceptable to the USFWS under this HCP. For a species who has already lost 84% of its range, impacting potentially suitable habitat even further, even with mitigation, is not compatible with the species' needs. Response: The regulatory requirement for an HCP is to minimize and mitigate to the maximum extent practicable. While we agree that the LEPC has experienced a significant amount of habitat loss and fragmentation, this HCP is designed to fully offset impacts to remaining habitat and thus meets issuance criteria. This specific section of the HCP was included only as a backstop to ensure we are monitoring the effectiveness at various scales to ensure it is effective at fully offsetting its impacts. |
| TNC | 161 | HCP | Adaptive Management | No | No | Yes |

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| | | | | | | <p>Comment: P. 67 - If it is found the cost of 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 raising the cost of mitigation credits. Comment: The damage to LEPC habitat and the species is already done at this point. Even if monitoring is granular enough to determine that 65% of the impacts from projects are in potentially suitable habitat, once those projects are permitted and developed, the impacts of fragmentation and disturbance are realized.</p> <p>Response: This adaptive management aspect would apply to future impacts under the HCP. If it is determined that a change is required, the purpose would be to ensure that additional projects occurring under the HCP have adequate disincentives to avoid intact LEPC habitat.</p> |
| WAFWA | 162 | General | General | No | No | Yes |
| | | | | | | <p>Comment: The Association hosts the Lesser Prairie Chicken (LEPC) Initiative Council and holds the permit for implementing the LEPC range-wide plan under a candidate conservation agreement with assurances (CCAA) for oil and gas development. The five LEPC range states – Colorado, Kansas, New Mexico, Oklahoma, and Texas – continue to work cooperatively with each other, the Service, and CCAA stakeholders to provide net conservation benefits for the LEPC, under which the population has grown and is proving to be a successful conservation collaborative.</p> <p>Response: Comment noted, this Range-wide Oil and Gas CCAA administered by the WAFWA is not related to this application.</p> |
| WAFWA | 163 | HCP | State Cooperation | No | No | Yes |
| | | | | | | <p>Comment: Neither the LEPC range states nor the Association were involved in the development of this proposal for an ITP even though it affects a state trust species, and not a species that is listed as threatened or endangered under the ESA.</p> <p>Response: See response to comment 51 above, for State cooperation. As WAFWA is an NGO, there is no requirement for the USFWS to cooperate under Section 6 of the ESA.</p> |
| WAFWA | 164 | HCP | Statutory Authority | No | No | Yes |
| | | | | | | <p>Comment: This proposal is an unwelcomed and unprecedented overreach of federal authority that detrimentally affects states' ability to manage state trust species, and we believe that, as proposed, the Service's ITP and HCP constitute an unlawful exercise of federal authority over the LEPC.</p> <p>Response: Applicants and the Service have been developing CCAAs that more and more are used as HCPs for unlisted species. While they meet the 2016 CCAA policy standard, they are based more on the minimize and mitigate strategy of a section 10(a)(1)(B) Incidental Take Permit. These are typically large plans that match an industry that impacts an unlisted species with landowners or mitigation providers that can implement the conservation strategy in the CCAA to cover future and ongoing impacts to the species, by setting up a conservation program that minimizes and mitigates the effects of the incidental take of the unlisted species. This arrangement is not what the CCAA policy or regulations were intended to cover. CCAAs were to be used for purely beneficial projects and to provide conservation for the unlisted species, and in return for increasing the number of individuals, distribution or other conservation outcome; the permit holder would be provided incidental take for existing, ongoing activities. The proposed HCP has been developed to treat the currently unlisted LEPC as if it were a listed species and has provided sufficient background information, analysis of effects from proposed covered activities, and mitigation and monitoring requirements. Furthermore, the HCP would provide voluntary pre-listing conservation that may be used to evaluate the species' status in a future listing decision. Unlike a CCAA, an HCP developed for a non-listed species, such as the currently proposed HCP, would provide additional benefits for the LEPC by providing for enrollment, additional conservation, and a known regulatory</p> |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS–R2–ES–2020–N125)**

| Commenter/ Organization | Comment Number | Applicable to EA/HCP/ or General | Topic | Change needed to HCP? | Edit needed to EA? | Completed |
|------------------------------------|--|---|--|------------------------------|---------------------------|------------------|
| | | | environment post-listing. While our 2016 revised HCP handbook provides guidance that an ITP and supporting HCP include at least one ESA-listed animal species, we believe considering an HCP without a currently listed species, in this instance, is supported by the Conference Report to the 1982 Amendments that created HCPs which expressly considered both listed and unlisted species. Furthermore, we have determined that there are no specific regulations prohibiting the processing of an ITP for an unlisted species. The proposed HCP would still be required to meet all issuance criteria in section 10 of the act and 50 CFR 17.22(b) and 17.32(b) prior to an ITP being issued, therefore, processing this ITP application and HCP is consistent with all current regulations. The proposed HCP does not change States' management ability of the LEPC in that, per the 10(a)(1)(B) permit issuance criteria, project proponents seeking coverage under the HCP through CIs must comply with all applicable federal, state, and local statutes and regulations. In addition, just as 10(a)(1)(A) ESPs issued for CCAAs, the proposed ITP would not become effective until such time that the LEPC may be listed. Prelisting participation in the HCP is voluntary for participants and would continue to provide the affected States continued regulatory authority regarding wildlife species. | | | |
| WAFWA | 165 | HCP | Statutory Authority | No | No | Yes |
| | Comment: The Association opposes the Service's issuance of an ITP and the supporting HCP solely for the LEPC because it is not a federally listed species. We urge the Service to engage in full consultation with the LEPC range states, where state fish and wildlife agencies retain full management authority for this species and other species in the LEPC's habitat that are not listed under the ESA and may be affected by this proposal. Response: See Response in line #167 | | | | | |
| WAFWA | 166 | HCP | State Cooperation | No | No | Yes |
| | Comment: Conservation of the species is best served by legal and regulatory consistency, which is itself ill-served by the unprecedented issuance of an HCP solely for a non-listed species. Our members regularly collaborate with private landowners, federal agencies, and project proponents to conserve fish, wildlife, and natural resources, and we request the Service do the same by fully integrating the LEPC range states into any and all further discussion about this ITP/HCP. Response: See response in line #167 and line # 54 | | | | | |
| WAFWA | 167 | HCP | Statutory Authority | No | No | Yes |
| | Comment: We are deeply concerned by the Service's proposal because it marks an unprecedented departure from historical and current practices as well as the authorities provided in statute by the ESA and from the Service's own policies and guidance. Response: See Response in line #167 | | | | | |
| WAFWA | 168 | HCP | Statutory Authority | No | No | Yes |
| | Comment: The Service's current HCP handbook reflects the absence of any such intent to treat state trust species as federally listed species, and the handbook states that the Service "cannot approve an HCP without at least one listed animal species[.]" Clearly, this proposal is in direct violation of the HCP handbook. Moreover, the Service's policy for voluntary pre-listing conservation continues to acknowledge "[t]he primacy of the States in conserving species before they are listed[.]" We believe this proposed ITP and HCP are entirely inconsistent with Service policies, guidance, and practices and is a misinterpretation of the congressional intent that established the HCPs. We agree with the historical interpretation and use of ITP/HCPs that they must address first the needs of at least one federally listed species before any non-listed species may be considered for inclusion. | | | | | |

**Response to Comments Received on Draft EA for Application for an Incidental Take Permit Pertaining to Renewable Energy
Development/Habitat Conservation Plan for Lesser Prairie-Chicken (FWS-R2-ES-2020-N125)**

| Commenter/ Organization | Comment Number | Applicable to EA/HCP/ or General | Topic | Change needed to HCP? | Edit needed to EA? | Completed |
|--|-----------------------|---|----------------------|------------------------------|---------------------------|------------------|
| Response: See Response in line #167 | | | | | | |
| WAFWA | 169 | HCP | Statutory Authority | No | No | Yes |
| Comment: Section 10(a)(1)(B) of the ESA only authorizes the Service to grant an ITP for a species that is listed as threatened or endangered. There is no authority within the ESA granted to the Service for making eligible a state trust species nor does it provide for a pre-listing ITP or HCP. ³ The Association is deeply concerned that the Service's view of the HCP as "provide[ing] the affected States continued regulatory authority regarding wildlife species" misinterprets primary state management authority. Response: See Response in line #167 | | | | | | |
| WAFWA | 170 | HCP | Statutory Authority | No | No | Yes |
| Comment: We strongly disagree with the assertion, based on their interpretation of the 1982 conference report language, that the Service has the authority to grant ITPs or approve HCPs solely for unlisted species. Congress has unambiguously declined to authorize such authority; therefore, full management authority over the LEPC remains with the range states as a state trust species, and there is no legitimate legal path for the Service to issue an ITP for a state trust species. Response: See Response in line #167 | | | | | | |
| WAFWA | 171 | HCP | State Cooperation | No | No | Yes |
| Comment: The Service claims that the ITP and HCP "... also supports States' management ability of the unlisted species similar to CCAAs" We disagree with this assumption. The LEPC Initiative Council (LEPCIC) and the independent LEPC range states were not involved in the discussions, crafting, or review of the ITP and HCP except for this 30-day public comment period; the full impacts of this proposal cannot be fully assessed and sufficiently commented on within such a short notice. Therefore, it is uncertain whether these actions will materialize to support states' management actions or conflict with them. Further, it is conceivable that some actions proposed under the ITP/HCP could lead to unintended consequences for the conservation and management of the LEPC and other state trust species within the LEPC range. Response: See Response in line #54 | | | | | | |
| WAFWA | 172 | HCP | State Cooperation | No | No | Yes |
| Comment: Providing the LEPC range states and the LEPCIC with a 30-day public comment period on proposal that affects state trust species does not constitute acceptable state-federal consultation, "cooperation with the states to the maximum extent practicable" as directed by the ESA, or the expected level of state-federal cooperation for the LEPC or any other conservation effort. We encourage the Service to work with LEPC range states on a mutually agreeable path forward. Response: See Response in line #54 | | | | | | |
| WAFWA | 173 | EA | Regulatory Standards | No | No | Yes |
| Comment: The Association is strongly concerned about the Service's assertion and implication that an HCP provides an equivalent level of conservation effort to that of a CCAA when in fact there are substantial differences of conservation effort between pre-listing mechanisms such as CCAAs and post-listing mechanism such as HCPs. An ITP provides for the immediate take of a species and the HCP provides mitigation measures for such take; whereas, | | | | | | |

| Commenter/ Organization | Comment Number | Applicable to EA/HCP/ or General | Topic | Change needed to HCP? | Edit needed to EA? | Completed |
|----------------------------|---|-------------------------------------|---------|-----------------------|--------------------|-----------|
| | <p>a CCAA is required to provide a net conservation benefit to the species. These mechanisms and their level of conservation effort are not on equal footing and have never been viewed as such since Congress enacted the 1982 ESA amendments.</p> <p>Response: We do acknowledge the different regulatory standards. The CCAA option was included as an alternative under NEPA for consideration. We simply include this as it is an option, the applicant could develop an application for a CCAA instead of an HCP so it should be considered. Simply including it as an alternative does not mean that it would by default meet the regulatory standards for a CCAA. In fact, within the EA it only states the impacts that rise to the level of take would be the same under either a CCAA or an HCP and that because it is assumed that the mitigation program would look the same that impacts under either program "would be fully offset". This is not a conclusion that an application for an EHS permit associated with a CCAA would meet issuance criteria.</p> | | | | | |
| WAFWA | 174 | HCP | General | No | No | Yes |
| | <p>Comment: Finally, from an ESA perspective the timing of issuance of this ITP and HCP could appear to be pre-decisional considering the Service's upcoming 12-month finding for the LEPC under the ESA is due within 30 days of this comment period.</p> <p>Response: The proposal was not (and is not) pre-decisional because the HCP does not assume that the LEPC will be listed, but instead, provides opportunities for voluntary participation regardless of the listing status.</p> | | | | | |