



January 30, 2017

Public Comments Processing, Attn: FWS-R2-ES-2016-0133
U.S. Fish and Wildlife Service
MS: BPHC
5275 Leesburg Pike
Falls Church, VA 22041-3803

RE: Comments on the U.S. Fish and Wildlife Service’s 90-day Finding on a Petition to List the Lesser Prairie Chicken as an Endangered Species under the Endangered Species Act (FWS-R2-ES-2016-0133)
81 Fed. Reg. 86,315 (Nov. 30, 2016)

Dear Sir/Madam:

The American Petroleum Institute (API), Independent Petroleum Association of America (IPAA), Permian Basin Petroleum Association (PBPA), and Western Energy Alliance (“The Alliance”) (collectively “the Trades”) submit these comments on the U.S. Fish and Wildlife Service’s (FWS or “the Service”) 90-day Finding on a Petition to List the Lesser Prairie Chicken (LPC) as an Endangered Species under the Endangered Species Act (ESA).¹ As outlined in these comments, the Trades believe that the best scientific and commercial information available demonstrate that the LPC does not meet the ESA’s definitions of either threatened or endangered species. LPC abundance has rebounded from historic lows, and through a combination of public and private efforts, the LPC is now better protected than at any previous time. A listing as threatened or endangered will not provide any additional conservation benefits above what already exists.

The Trades’ members operate throughout the five-state range of the LPC, have voluntarily protected millions of acres of LPC habitat, and contributed more than 50 million dollars in LPC conservation funding and research. Additionally, the Trades have themselves been engaged in the

¹ 81 Fed. Reg. 86,315 (Nov. 30, 2016)

Service's LPC listing efforts for many years, and filed multiple comment letters on 2012 Proposed "Threatened" Listing and 4(d) Special Rule that were subsequently finalized and ultimately invalidated pursuant to a legal action. Those comments are incorporated herein by reference.

The Trades strongly urge FWS to issue a 12-Month finding that listing LPCs is not warranted. We further urge that FWS structure its status review so that the Service can base its decision on the best and most recent scientific information available, including the most recent survey and conservation data.

I. SUMMARY

The September 2016 Listing Petition requests that FWS designate the range-wide LPC population into three Distinct Population Segments ("DPS") and list each segment as endangered under the ESA. As an alternative, the Listing Petition requests that the Service list the range-wide LPC population as endangered under the ESA. Petitioners present no credible scientific evidence indicating that either requested relief is warranted. To the contrary, the best scientific information available demonstrates that the LPC populations would not qualify as DPSs, and that the species is not on the brink of extinction or likely to become so in the foreseeable future. Indeed, the best scientific information available suggests that the LPC populations are stable (if not growing) and protected by a historic level of conservation actions.

Section IV below discusses Petitioners' request that FWS designate three DPSs of the range-wide LPC Population. As discussed further therein:

- This use of the Service's DPS authority would violate the ESA and congressional admonitions regarding how FWS should exercise its DPS authority;
- The Listing Petition did not provide evidence that any of the putative DPSs were markedly discrete. In fact, the best scientific information available suggests connectivity between the populations; and,
- The Listing Petition did not provide evidence that any distinctions between the populations (to the extent they exist at all) are significant to the conservation status of the overall taxon. In fact, the best scientific information available shows that Petitioners' bases for asserting significance are baseless.

Section V below discusses Petitioners alternate request that FWS designate the LPC range-wide as an endangered species. As discussed further therein:

- The ESA mandates a high standard for listing species that limits listing status to species that are on the brink of extinction or likely to become so in the foreseeable future;
- The ESA further mandates that this listing analysis examine not only potential threats to species, but also the public and private mechanisms in place to mitigate or eliminate those threats;
- The best scientific information available indicates that LPC populations are stable (and potentially growing), and that LPC range is expanding;

- The best scientific information available indicates that habitat modification – and, in particular, oil and gas development – does not threaten LPCs;
- The best scientific information available indicates that presumed climate change impacts do not threaten presently threaten LPCs, and that any surmised future climate change impacts are speculative and not likely to drive LPCs to the brink of extinction within the foreseeable future;
- Even though there are no threats likely to drive LPCs to the brink of extinction within the foreseeable future, historic levels of public and private conservation efforts are in place and underway that make the LPC’s risk of extinction remote and essentially unforeseeable.

Given this best available scientific information and the Listing Petition’s relative absence of scientifically supportable conclusions to the contrary, the ESA requires FWS to reach a finding that listing LPCs (as separate DPSs or range-wide) is unwarranted. Any conclusion otherwise would be arbitrary, capricious, and an abuse of the Service’s discretion under the ESA.

II. THE TRADES

The Trades’ members engage in oil and gas exploration, production, and transportation activities “over much of the estimated historical and occupied range of the lesser prairie-chicken.”² LPC habitat overlies the Permian Basin, which is one of the most productive oil and gas producing areas in the western United States, as well as other key basins such as the Barnett and Anadarko Basins. The Trades’ members lease, own and operate on lands within the range of the LPC, and in each of these basins.

Because of the proximity of oil and gas operations in and around areas identified as LPC habitat, the Trades’ members have undertaken unprecedented efforts to protect the LPC, preserve and improve its habitat, and minimize any potential adverse impacts associated with oil and gas development. Each of the Trades represents member companies that have undertaken significant voluntary conservation efforts to protect the lesser prairie-chicken. These member companies have enrolled over 9 million acres in conservation plans and committed more than 50 million dollars to fund habitat conservation and restoration programs.

API is a national trade association representing over 640 member companies involved in all aspects of the oil and natural gas industry. API’s members include producers, refiners, suppliers, pipeline operators, and marine transporters, as well as service and supply companies that support all segments of the industry. API member companies are leaders of a technology-driven industry that supplies most of America’s energy, supports more than 9.8 million jobs and 8 percent of the U.S. economy, and since 2000, has invested nearly \$2 trillion in U.S. capital projects to advance all forms of energy, including alternatives.

IPAA is the national association representing the thousands of independent crude oil and natural gas explorer/producers in the United States. It also operates in close cooperation with 44 unaffiliated independent national, state, and regional associations, which together represent thousands of royalty owners and the companies which provide services and supplies to the

² 79 Fed. Reg. at 20,052

domestic industry. IPAA is dedicated to ensuring a strong and viable domestic oil and natural gas industry, recognizing that an adequate and secure supply of energy developed in an environmentally responsible manner is essential to the national economy.

The PBPA is the largest regional oil and gas association in the United States. The PBPA represents the men and woman who work in, as well as those benefited by, the oil and natural gas industry in the Permian Basin of west Texas and eastern New Mexico. Established in 1961, the PBPA's mission is to promote the safe and environmentally responsible development of oil and natural gas resources among its members. The PBPA represents oil and natural gas explorers and producers, as well as the service and supply industries that support their efforts in the largest inland oil and natural gas reservoir and the largest oil and natural gas-producing region in the world.

The Alliance represents over 300 companies engaged in all aspects of environmentally responsible exploration and production of oil and natural gas in the West. Alliance members are independents, the majority of which are small businesses with an average of fifteen employees.

III. LPC LISTING AND CONSERVATION BACKGROUND

The LPC “is a species of prairie grouse endemic to the southern high plains of the United States . . .,”³ including expanding portions of Oklahoma, Kansas, New Mexico, Texas, and Colorado.⁴ Suitable habitats for LPC include grasslands in Kansas, sagebrush habitat in Colorado, Kansas, Oklahoma, and Texas, and shinnery oak habitat in New Mexico, Oklahoma, and Texas.⁵

The LPC was first classified as a candidate for listing under the ESA in 1998 and assigned a Listing Priority Number (“LPN”) of 8 on a 12-point scale under which “1” represents the highest priority and “12” represents the lowest priority.⁶ FWS continued to assign the LPC an LPN of 8 until 2008, when FWS drastically changed the LPN from 8 to 2, in response to presumed threats to LPC habitat from various types of development, including wind energy structures, transmission lines, grassland conversion, and oil and gas development.⁷ Indeed, from the time the LPC was first considered a candidate species in 1998, the lack of reliable population surveys⁸ meant that potential threats to the LPC were merely inferred from presumed threats to LPC habitat.⁹

While a combination of federal, state, and private entities undertook efforts to conserve the LPC by protecting its habitat from fragmentation, degradation, and conversion even before the LPC was even considered a candidate species in 1998, those efforts continued to increase and expand throughout the duration of the LPC's candidate status. The Trades' members were key participants in these early voluntary conservation efforts to conserve LPC habitat and protect LPCs.

³ 79 Fed. Reg. at 19,998.

⁴ 79 Fed. Reg. 20,009.

⁵ 79 Fed. Reg. at 20,006.

⁶ 63 Fed. Reg. 31,400 (June 9, 1998).

⁷ 73 Fed. Reg. 75,176 (Dec. 10, 2008); 79 Fed. Reg. at 19,995.

⁸ 79 Fed. Reg. 20,010.

⁹ See 77 Fed. Reg. at 72,830 (noting that changes in the LPC Listing Priority Number were based on expected development in LPC habitat); See also 77 Fed. Reg. at 73,851 (“Estimates of historical population size also can be unreliable and lead to inaccurate inferences about the populations of interest. However, the loss and alteration, including fragmentation, of lesser prairie-chicken habitat throughout its historical range over the past several decades is more indicative of the status of the lesser prairie-chicken.”).

As far back as 1985, the U.S. Department of Agriculture’s (“USDA”) Farm Service Agency (“FSA”) began implementing the Conservation Reserve Program (“CRP”) under which agricultural landowners ultimately enhanced “millions of acres within the range of the lesser-prairie chicken.”¹⁰ Similarly, the State Acres for Wildlife Enhancement Program (“SAFE”) is a coordinated state habitat improvement program that began in 2008 and, at the time of the final listing, had improved over 214,000 acres of LPC habitat.¹¹

USDA’s Lesser Prairie Chicken Initiative (“LPC Initiative”) started in 2010 to provide technical and financial assistance to agricultural landowners to voluntarily protect and enhance LPC habitat.¹² Between 2010 and 2012, conservation contracts were executed covering 942,572 acres and for which \$24.5 million has been committed to LPC conservation.¹³

Since 2004, the Sutton Center, a private, non-profit organization located in Bartlesville, Oklahoma, has been working to reduce LPC collision mortality by removing or marking barbed wire fences.¹⁴ At the time FWS finalized the listing, the Sutton Center had removed or improved over 200 kilometers of fences, with the potential to reduce mortality on over 109,000 acres of LPC habitat.¹⁵

In addition to the extraordinary multijurisdictional efforts to protect and conserve LPC, states and private landowners therein undertook significant intrastate efforts to protect and conserve LPC by protecting LPC habitat. Even prior to the Service’s 2012 proposal to list the LPC, conservation plans were implemented in Oklahoma, New Mexico, and Texas, and each of the five states in LPC range undertook meaningful research, funding, and conservation efforts.¹⁶ In particular, the New Mexico Conservation Plan was developed to provide conservation benefits to both the LPC and the dunes sagebrush lizard (“DSL”), with which the LPC shares habitat and habitat needs. The private landowners, including many of the Trades’ members, enrolled 1,740,000 acres in New Mexico’s ranching Conservation Plan and 875,000 acres in the oil and gas Conservation Plan. The state enrolled 248,000 acres of LPC habitat in the Conservation Plan, and the Bureau of Land Management (“BLM”), acting in conjunction with New Mexico, closed all future oil and gas leasing on 153,257 acres in New Mexican LPC/DSL habitat and ensured that 132,590 acres of unleased federal land in New Mexican LPC/DSL habitat would remain unleased. Importantly, based in large part on the widespread enrollment in the Conservation Plans in New Mexico, FWS withdrew its proposed “endangered” listing of the DSL and determined that no ESA listing was necessary for the DSL – a species with which the LPC shares the same shinnery oak dune habitat, the same alleged habitat-based threats, and which benefits from many of the same conservation programs.¹⁷

Notwithstanding these voluntary conservation efforts and significant evidence of expanding LPC range and population growth, WildEarth Guardians (“WEG”) – one of the petitioners here – sued FWS on September 1, 2010 for allegedly failing to make expeditious progress toward listing the LPC. That action was subsequently consolidated with several other cases initiated by WEG and

¹⁰ 79 Fed. Reg. at 19,988.

¹¹ 79 Fed. Reg. at 19,988.

¹² 79 Fed. Reg. at 19,989.

¹³ 79 Fed. Reg. at 19,989.

¹⁴ 79 Fed. Reg. at 19,991.

¹⁵ 79 Fed. Reg. at 19,991.

¹⁶ 79 Fed. Reg. at 19,992.

¹⁷ 77 Fed. Reg. 36,872 (June 19, 2012).

the several additional lawsuits filed by the Center for Biological Diversity (“CBD”), a litigious activist group which also joined the petition underlying this action.¹⁸

In order to settle the *Section 4 Deadline Litigation* and conserve the considerable resources FWS was forced to expend defending itself from the numerous lawsuits filed by WEG and CBD, FWS agreed to remove the LPC’s status as a “candidate for listing” and to publish a listing decision for the species by March 31, 2014. FWS then proposed to list the LPC listing as a “threatened species” on December 11, 2012.¹⁹ As such, the Service’s removal of the LPC from the candidate list and proposal to list the LPC was precipitated by litigation initiated by petitioners here – not through FWS’s framework for prioritizing listing efforts for higher risk species. Indeed, all available evidence indicates that the sole basis for identifying LPC as a candidate species – habitat fragmentation – was being addressed through an extraordinary level of state and private sector engagement.

The Trades and their members fully participated in the ensuing rulemaking period, which was extended by six months based on “substantial disagreement among scientists knowledgeable about the species regarding the sufficiency or accuracy of the available data relevant to the determination.”²⁰ During that period, the Trades and their members continued to engage with FWS to apprise the Service of the various state and voluntary conservation efforts in existence and in development that would make listing the LPC unwarranted.²¹

The Trades, joined by hundreds of organizations, landowners, and private sector companies, universities, and state wildlife experts also undertook a monumental effort to protect LPC habitat and avoid a listing by expanding their already robust conservation efforts to unprecedented levels. Following the publication of the proposed LPC listing in December 2012, each of the pre-proposal conservation efforts continued to expand and important new initiatives were finalized and implemented. Among these measures was the WAFWA Range-wide Plan, which the FWS endorsed as providing a comprehensive framework for habitat conservation and mitigation.²² With the substantial voluntary participation of the Trades’ member companies, on the eve of the final listing, WAFWA reported over 3.6 million acres were enrolled and nearly \$21 million in fees were raised for LPC habitat conservation under the Range-wide plan.²³

In addition to the Range-wide Plan, in 2012, the Farm Service Agency (“FSA”) announced a new program to protect highly erodible land that it estimated could be used to protect 689,000 acres of LPC habitat.²⁴ Notably, this estimate was in addition to the substantial protections in place prior to publication of the proposed listing. Similarly, in 2013, 220,598 acres were enrolled in the LPC Initiative – a program in which nearly a million acres were already enrolled prior to listing.²⁵

States also aggressively pursued intrastate programs to protect the LPC. Colorado instituted a Habitat Improvement Program for the LPC and enrolled over 11,000 acres and funded \$14 million

¹⁸ *In re Endangered Species Act Section 4 Deadline Litigation*, No.10-377 [EGS], MDL Docket No. 2165 (D.D.C. May 10, 2011) (“*Section 4 Deadline Litigation*”).

¹⁹ 77 Fed. Reg. 73,828.

²⁰ 78 Fed. Reg. 41,022 (July 9, 2013).

²¹ 78 Fed. Reg. 26,302 (May 6, 2013).

²² 79 Fed. Reg. at 19,990.

²³ See <http://www.eenews.net/stories/1059996772> (accessed Jan. 25, 2017).

²⁴ 79 Fed. Reg. at 19,988.

²⁵ 79 Fed. Reg. at 19,989.

in conservation easements to benefit the LPC.²⁶ Private landowners in Colorado also voluntarily protected an additional 23,000 acres through the Service’s Partners in Fish and Wildlife program (“PFW Program”), enrolled nearly 11,000 acres in the CRP SAFE program, and permanently protected an additional 11,000 acres of LPC habitat through perpetual easements.²⁷

Kansas instituted a Conservation Plan for LPC conservation and developed a landowner incentive program (“Incentive Program”) under which 22,531 acres of LPC habitat was protected and improved.²⁸ Also, in 2013, 29 counties in Kansas developed a coordinated effort to protect and conserve LPC in an area that encompasses over 16 million acres. Private landowners in Kansas also enrolled nearly 140,000 acres in the PFW Program and 29,000 acres in SAFE.²⁹ Additionally, a non-profit organization accessed \$850,000 in grant funding to execute 43 separate rangeland improvement projects benefitting over 100,000 acres of LPC habitat.³⁰

The majority of New Mexico’s effort was encompassed in the millions of acres protected under the Conservation Plans prior to the proposed listing. Subsequent to the Service’s listing proposal, however, BLM and New Mexico began improving LPC habitat through mesquite removal on 388,937.³¹ New Mexico has also purchased and/or permanently closed over 30,000 acres of LPC habitat.³² Private landowners in New Mexico also protected over 70,000 acres of LPC habitat under the PFW Program, 2,600 acres under SAFE, and 28,000 acres as a permanent wildlife preserve.³³

For its part, Oklahoma acquired and protected over 20,000 acres of LPC habitat, developed in conjunction with environmental groups a mitigation tool under which \$11.1 million has already been committed to LPC habitat mitigation, and enrolled 17,582 acres in its CCAA – which Oklahoma was attempting to expand when FWS issued the final listing.³⁴ Private landowners in Oklahoma also voluntarily enrolled over 96,000 acres of LPC habitat in the PFW and over 15,000 acres in SAFE.³⁵

By December 2013, the Conservation Plan that Texas developed to protect the LPC encompassed 572,999 enrolled acres, with 12 more applications pending at the time FWS issued its final listing decision.³⁶ Texas also enrolled more than 14,000 acres in its LIP.³⁷ Private landowners in Texas also voluntarily protected over 131,000 acres of LPC habitat in the PFW, over 77,000 acres in SAFE, and nearly 11,000 as a permanent preserve.³⁸

While the Service seemingly recognized some of these efforts in finalizing a special rule under ESA Section 4(d) (“4(d) Rule”), which excluded from the ESA’s prohibitions certain use and

²⁶ 79 Fed. Reg. at 19,993.

²⁷ 79 Fed. Reg. at 19,993.

²⁸ 79 Fed. Reg. at 19,993.

²⁹ 79 Fed. Reg. at 19,993.

³⁰ 79 Fed. Reg. at 19,993.

³¹ 79 Fed. Reg. at 19,995.

³² 79 Fed. Reg. at 19,995.

³³ 79 Fed. Reg. at 19,995.

³⁴ 79 Fed. Reg. at 19,995.

³⁵ 79 Fed. Reg. at 19,996.

³⁶ 79 Fed. Reg. at 19,997.

³⁷ 79 Fed. Reg. at 19,997.

³⁸ 79 Fed. Reg. at 19,997.

development activities that are conducted in conjunction with enrollment in a conservation program,³⁹ FWS persisted in listing the LPC as a threatened species on April 10, 2014.⁴⁰

On June 8, 2014, the Trades challenged the LPC's listing decision in the Northern District of Oklahoma as arbitrary and capricious in violation of the Administrative Procedure Act ("APA") (5 U.S.C. § 551 *et seq.*).⁴¹ The Permian Basin Petroleum Association and several counties filed suit a day later in the Western District of Texas.⁴² Then, after two cases were already pending in two different district courts, the petitioners here (WEG, CBD, and Defenders of Wildlife ("Defenders")) filed a third action in the D.C. District Court arguing that FWS should have listed the LPC as an endangered species rather than a threatened species.⁴³ For well over a year, WEG, CBD, and Defenders delayed judicial review of the LPC listing decision through the use of venue maneuvers, motions to stay, and opposition to any efforts that would have allowed for a timely review of the substance of the listing decision.

Notwithstanding petitioners' procedural maneuvers, the Western District of Texas was ultimately the only court to review the 2014 LPC Listing Decision. On September 1, the court vacated the LPC listing decision holding that FWS failed to adequately consider the impact of these historic voluntary and state conservation efforts in its evaluating whether LPC were likely to be placed on the brink of extinction within the foreseeable future.⁴⁴ More specifically, the court held that FWS improperly concluded that participation in the Range-wide Plan would significantly erode, and that the Range-wide Plan would cease to effectively protect LPCs in the future, if the threat of a listing were removed.⁴⁵ Not only was this conclusion unsupported by the record before the Service, it has since been proven to be incorrect. As discussed in V.E.2 below, voluntary conservation efforts have continued and expanded more than a year after the Western District of Texas vacated the Service's decision to list the LPC as a threatened species.

The Western District of Texas further held that FWS improperly held the Range-wide Plan to a standard that seemingly required that the plan demonstrate that it would eliminate or reduce threats to the species at the time of the listing – rather than in the future.⁴⁶ The court held that this standard was inconsistent with the PECE Policy, which was designed to provide a framework for assessing the future value of voluntary conservation efforts that have not yet been fully implemented or demonstrated to be effective.⁴⁷ Indeed, the Service's standard was particularly inappropriate when applied to the LPC, which FWS concluded was not presently at risk of extinction, but at risk of becoming so at some point in the future.

Now, more than a year after the Western District of Texas's decision, and after an additional year of using procedural roadblocks to delay the Western District of Texas's decision, these same

³⁹ 79 Fed. Reg. 20,074 (April 10, 2014).

⁴⁰ 79 Fed. Reg. 19,973.

⁴¹ *Oklahoma Indep. Petroleum Ass'n. et al. v. Dep't of the Interior, et al.*, 4:14-CV-307-JHP-PJC (June 8, 2014).

⁴² 127 F.Supp.3d. 700

⁴³ *Defenders of Wildlife, et al. v. Jewell*, No. 14-cv-0509 (June 17, 2014).

⁴⁴ *Permian Basin Petroleum Ass'n. v. Dep't of Interior*, 127 F. Supp. 700 (W.D. Tex. 2015) ("*PBPA v. DOI*").

⁴⁵ While the court's decision related to the Range-wide Plan specifically, the analytical flaws identified by the court would apply equally to each of the voluntary conservation efforts undertaken to protect LPCs. In fact, these analytical flaws are more prevalent relative to many other voluntary conservation efforts, for which FWS conducted little or no PECE analysis at all.

⁴⁶ See *PBPA v. DOI* at 722.

⁴⁷ See *PBPA v. DOI* at 723.

groups now petition FWS to act quickly to avert the LPC's "dire risk of extinction."⁴⁸ Given the level of protection that remains in place with or without listing, and Petitioners well-documented efforts to delay judicial resolution of the LPC's listing status, one must question whether Petitioners' interest rests more with impeding the industries that operate within LPC habitat than with protecting LPC.

The LPC did not meet the ESA's definition of a "threatened species" 2014, and there is less basis to reach this conclusion now as populations have become more stable, its range has expanded, and the historic protections that were in place in 2014 have expanded. There is no credible risk that LPCs will be driven to the brink of extinction within the foreseeable future. In fact, as discussed throughout these comments, the likelihood that LPCs will be driven to the brink of extinction within the foreseeable future is incredibly remote even under tremendously pessimistic and unrealistic scenarios.

IV. NO LPC POPULATIONS QUALIFY AS DISTINCT POPULATION SEGMENTS

The September 2016 Listing Petition requested that FWS divide the range-wide population of LPCs into three distinct population segments ("DPS") roughly delineated by the ecoregions inhabited by LPCs and used as management tools for its conservation: (1) a Shinnery Oak Prairie DPS; (2) a Sand Sagebrush Prairie DPS; and, (3) a Mixed-Grass and Shortgrass Prairie/CRP Mosaic DPS.⁴⁹ The Petitioners additionally requested that each of the DPS be listed as endangered and further demanded that FWS utilize its rarely-invoked emergency authority to list the putative Shinnery Oak Prairie DPS and Sand Sagebrush Prairie DPS without undertaking a status review or accepting public comment.⁵⁰ The Service's 90-day finding properly rejected this aspect of the petition.⁵¹

The Service's authority to designate DPS is limited to instances where populations of the species are conspicuously separated from each other and markedly distinct in some way that is important to the taxon as a whole. None of these factors are present in the three populations Petitioners seek to designate as DPS. LPC in each of these populations are physiologically, morphologically, and behaviorally identical. The genetic distinctions described in the listing petition are modest, consistent with the genetic variation one would expect to observe in any widespread species, and actually indicative of migration between the populations.⁵²

At base, the Listing Petition requests an unscientific taxonomic deconstruction of a relatively abundant species into units small enough to warrant listing. FWS properly rejected this aspect of

⁴⁸ LPC Listing Petition at 2.

⁴⁹ LPC Listing Petition at 2.

⁵⁰ LPC Listing Petition at 117.

⁵¹ 81 Fed. Reg. at 86,317

⁵² Oyler-McCance (2016); Ronald A. Van den Bussche et al., Genetic Variation Within and Among Fragmented Populations of Lesser Prairie-Chickens (*Tympanuchus Pallidicinctus*), 12, at 675-683 (*Molecular Ecology* 2003); Christian A. Hagen et al., Regional Variation in mtDNA of the Lesser Prairie-Chicken, 112, at 29-37 (*Condor* 2010); C. L. Pruett et al., Low Effective Population Size and Survivorship in a Grassland Grouse, 12, at 1205-1214 (*Springer* 2011); R. W. DeYoung, and D. L. Williford, Ecology and Conservation of Lesser Prairie-Chickens: Genetic Variation and Population Structure in the Prairie Grouse- Implications for Conservation of the Lesser Prairie-Chicken at 77-97. (David A. Haukos & Clint W. Boal eds., 2016); John A. Crawford, Status, Problems, and Research Needs of the Lesser Prairie-Chicken, 1-7, (1980).

the Petition in the 90-day finding. The Trades request that the Service explicitly reiterate the basis for its rejection in its 12-month finding.

A. The Service's Authority to Designate DPS must be Used Sparingly and Only When Distinctions Are Significant

The ESA applies to distinct taxonomic species, “any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife that interbreeds when mature.”⁵³ The aspects of this definition that relate to DPS were intensely scrutinized during congressional debate for fear that, through recognition of DPS, the ESA could be manipulated to disaggregate a species to such an extent that even healthy and abundant species could be found to be endangered.

The 1978 addition of the phrase “DPS” was, in fact, designed to constrain language in the ESA of 1973 which extended the statute to “any other group of fish or wildlife of the same species or smaller taxa in common special arrangement that interbreed when mature.” Still, the U.S. General Accounting Office (“GAO”) warned that use of a DPS could lead to unnecessary subdivision that did little more than lead to the listing of segments of healthy and abundant species.⁵⁴ In response to such concerns, Congress noted in the Conference Report on the ESA Reauthorization recognition that it “is aware of the great potential for abuse of this authority,” and included an admonition that the listing agencies use their DPS authority “sparingly and only when then biological evidence indicates that such action is warranted.”⁵⁵

In the ensuing decades, the listing agencies have generally respected the high bar that Congress demanded be used to designate a DPS. In 1991, FWS and the National Marine Fisheries Service (“NMFS”) established a policy outlining criteria for designating Pacific salmon by DPS.⁵⁶ Under the policy, DPS status was restricted to “evolutionarily significant units” (“ESU”) that are substantially reproductively isolated and which represent an important component of the evolutionary legacy of the species.⁵⁷ In 1996, NMFS and FWS established a new, more encompassing DPS policy that, like the ESU policy and consistent with congressional intent, maintained a high bar to designate a DPS.⁵⁸ For a population segment to be considered a DPS under the 1996 policy, the segment must meet two criteria: (1) it must be discrete; and (2) it must be significant.⁵⁹ Discreteness requires conspicuous separation from the remainder of the species, but separation alone is not enough to be a DPS.⁶⁰ Even if the species is markedly discrete, the listing services, at Congress’s direction, instruct that the discrete segment be significant in some unique biological manner or that the segment provide some significant role in the species as a whole.⁶¹

⁵³ 16 U.S.C. § 1532(16).

⁵⁴ See U.S. General Accounting Office, *Endangered Species: A Controversial Issue Needing Resolution* (1979).

⁵⁵ S. Rep. No. 95-151, at 7 (1979), reprinted in *ESA Legislative History*, *supra* note 144, at 1397.

⁵⁶ 56 Fed. Reg. 58612 (Nov. 20, 1991).

⁵⁷ *Id.* at 58518.

⁵⁸ 61 Fed. Reg. 4722 (Feb. 7, 1996).

⁵⁹ *Id.* at 4725. If the species is both discrete and significant, it is considered a DPS, but that DPS is not then protected under the ESA unless and until the listing agency determines that the DPS is either threatened or endangered under the ESA.

⁶⁰ *Id.*

⁶¹ *Id.*

The “significance” element of the DPS Policy is critical to the evaluation of population segments for DPS status. Indeed, FWS has found several populations to be discrete, but declined to extend DPS status because the discrete segment was not significant.⁶²

The DPS Policy provides a high hurdle – appropriately so. In developing the DPS Policy, FWS acknowledged that Congress instructed the Service to “use its authority with respect to designating DPSs ‘sparingly’ and only in instances ‘when the biological evidence indicates that such action is warranted.’” In ESA listing decisions, the listing service seeks to avoid extinction of a species, and thus often resorts to a precautionary approach. Because a DPS designation involves the structuring of a species’ population and thus potentially multiplies the taxonomic units of concern, the listing services must use their DPS designation authority with care, lest a proliferation of taxonomic units lead to an enormous drain on agency resources with little or no conservation benefit to the species. The listing services must be careful to avoid a widespread deconstruction of taxonomic units, which would lead to an enormous drain on agency resources with little or no conservation benefit to the species.

The present Listing Petition asks FWS to engage in the precise type of baseless taxonomic deconstruction that Congress admonished the Service to avoid. As such, the Service’s 90-Day Finding properly rejected Petitioners’ request to establish three DPS from the range-wide LPC population. Neither the DPS Policy nor the biological data Petitioners suggest should apply to the DPS Policy support the designation of LPCs as three DPSs.

Indeed, notwithstanding decades of petitioning and litigation, petitioners have never before suggested that LPCs should be listed as three DPS. Petitioners newfound interest in this delineation has little to do with taxonomy or biology – it reflects a strategic effort to disassemble otherwise healthy populations until they are small enough to warrant listing. The DPS delineation requested in the Listing Petition would waste conservation resources, is unsupported, and should be explicitly rejected.

B. The Listing Petition Presents Insufficient Evidence of Distinction and No Evidence of Significance

As explained above, for a population segment to be considered a DPS, the segment must: (1) be discrete; and (2) be significant.⁶³ The Listing Petition failed present data sufficient to support either factor.

1. Discreteness

Petitioners argue that the three LPC population segments are markedly discrete based on the geographic separation of the species and evidence of population structuring.⁶⁴ The scientific evidence provided, however, is not sufficient to demonstrate that the populations are markedly discrete or that they are conspicuously separated. In fact, a careful reading of the available data, including the studies on which Petitioners base their petition, reveals that these populations are not

⁶² See, e.g., 67 Fed. Reg. 44133 (Jul. 1, 2002); 68 Fed. Reg. 11574 (Mar. 11, 2003); 68 Fed. Reg. 34628 (Jun 10, 2003); 77 Fed. Reg. 25792 (May 1, 2012).

⁶³ *Id* at 4725. If the species is both discrete and significant, it is considered a DPS, but that DPS is not then protected under the ESA unless and until the listing agency determines that the DPS is either threatened or endangered under the ESA.

⁶⁴ Listing Petition at 6-19.

markedly discrete and that the conservation strategies that are currently being implemented will likely increase connectivity between populations.

Importantly, Petitioners did not base their “discreteness” analysis on any physical, physiological, behavioral, or morphological distinction. Nor could they – an LPC in one ecoregion is physically and behaviorally indistinguishable from an LPC in another ecoregion. While Petitioners are correct that the three putative DPS are separated by areas of unoccupied habitat, they mischaracterize these areas as barriers to migration. To the contrary, the best genetic information available indicates that there continues to be migration and gene flow between the populations inhabiting the four primary LPC ecoregions.⁶⁵ Moreover, large expanses of these ecoregions are not separated by unoccupied habitat at all.⁶⁶ Indeed, the ecoregions identified in the Listing Petition were delineated in large part in order to serve conservation and habitat management purposes – not to suggest the presence of evolutionarily distinct units.

A recent study about LPC’s long-range dispersals also undermines Petitioners’ assertions about conspicuous separation.⁶⁷ While biologists have long understood that LPCs were capable of long-range movements, until recently, very little was known about whether LPCs undertake such movements. Earl (2016) used satellite GPS transmitters on LPCs across the entire distribution of the species and documented dispersal movements “up to 71 km net displacement.”⁶⁸ As noted by the authors “[t]hese distances suggest that there may be greater potential connectivity among populations than previously thought.”⁶⁹ Indeed, given these distances, even LPCs in shinnery oak habitat – the most geographically isolated ecoregion – are capable of maintaining connectivity with other LPC populations. Even Petitioners seemingly acknowledge this fact in their Listing Petition: “Lek populations may be connected via female dispersal into larger metapopulations.”⁷⁰

The genetic data also support this conclusion. While Petitioners cite Oyler-McCance (2016) as evidence of marked distinction, in reality, the study reflects persistent gene flow over time among populations between ecoregions - even those separated by unoccupied habitat. Numerous other studies support this conclusion.⁷¹

Nor does the genetic structuring identified in Oyler-McCance (2016) evince distinctiveness. The LPC populations situated in the various ecoregions exist as metapopulations, within which population-specific genetic markers develop based on the tendency for a small number of (non-

⁶⁵ Sara Oyler-McCance et al., Conservation Genetics: Rangeland Genetic Analysis of Lesser Prairie-Chicken Reveals Population Structure, Range Expansion, and Possible Introgression, 17.3, at 643-660 (2016). Hereafter “Oyler-McCance (2016)”.

⁶⁶ Oyler-McCance (2016).

⁶⁷ Julia E. Earl et al., Characteristics of Lesser Prairie-Chicken (*Tympanuchus Pallidicinctus*) Long-Distance Movements Across Their Distribution, 7(8). (*Ecosphere* 2016). Hereafter “Earl (2016)”.

⁶⁸ Earl (2016).

⁶⁹ Earl (2016).

⁷⁰ Listing Petition at 41.

⁷¹ Ronald A. Van den Bussche et al., Genetic Variation Within and Among Fragmented Populations of Lesser Prairie-Chickens (*Tympanuchus Pallidicinctus*), 12, at 675-683 (*Molecular Ecology* 2003); Christian A. Hagen et al., Regional Variation in mtDNA of the Lesser Prairie-Chicken, 112, at 29-37 (*Condor* 2010); C. L. Pruett et al., Low Effective Population Size and Survivorship in a Grassland Grouse, 12, at 1205-1214 (*Springer* 2011); R. W. DeYoung, and D. L. Williford, Ecology and Conservation of Lesser Prairie-Chickens: Genetic Variation and Population Structure in the Prairie Grouse- Implications for Conservation of the Lesser Prairie-Chicken at 77-97. (David A. Haukos & Clint W. Boal eds., 2016); John A. Crawford, Status, Problems, and Research Needs of the Lesser Prairie-Chicken, 1-7, (1980).

migratory) male LPCs to dominate the breeding pool.⁷² Connectivity between these populations is largely maintained by longer dispersing females.⁷³ While different metapopulations of LPC have some genetic distinctiveness, that distinctiveness is inherent in all metapopulations, and necessary for overall genetic diversity. Moreover, this localized genetic variation is present between ecoregions, but also within ecoregions.⁷⁴ It is not evidence of marked distinction or conspicuous separation – it merely reflects metapopulation dynamics not altogether different than what would be observed in any other widespread species.

Even Oyler-McCance (2016) – the study most cited by Petitioners in their DPS analysis – characterized the distinction between ecoregions as “relatively discrete,” and suggested further study is needed. Further, the genetic studies in Oyler-McCance (2016) were chiefly designed to inform ongoing efforts to increase connectivity between LPC ecoregions. In fact, increasing habitat connectivity is one of the foremost goals of the LPC conservation strategy that is being implemented throughout the full range of the LPC.⁷⁵ As such, even if some level of genetic distinction exists between LPC populations, that distinctiveness is not marked and likely eroding as LPC populations stabilize and increase and as connectivity strategies continue to be implemented on an unprecedented scale.

2. Significance

Even if the Listing Petition credibly showed that LPCs in one ecoregion are markedly distinct and conspicuously separated from LPCs in adjacent ecoregions, the DPS Policy still requires a demonstration that the distinctiveness of the population segment is important to the taxon as a whole.⁷⁶ Once more, the Listing Petition’s conclusory analysis falls short of the high standards for designating DPS imposed by the ESA and the DPS Policy.

As with their “discreteness” analysis, the absence of any physical, physiological, behavioral, or morphological distinctions between LPC populations forced Petitioners to base their “significance” analysis on the modest genetic variations inherent in metapopulation dynamics. As the Trades explained above, this is not evidence of marked distinction – and it is certainly not evidence of significance. To conclude otherwise would require FWs to adopt an analytical framework under which any relatively widespread species with local genetic variations could be disaggregated into any number of DPSs. The ESA does not permit such a result.

Petitioners’ alternate basis for demonstrating the significance of the putative DPS is the various segments’ persistence in settings that are unique or unusual for the taxon.⁷⁷ There is nothing unique or usual, however, about any of the various ecoregions containing LPC habitat. Each of these ecoregions are areas within the historic range of the LPC – *where LPC habitat has always been located*.⁷⁸ While the regions differ in topography and climate, they do not differ in any

⁷² Oyler-McCance (2016).

⁷³ Earl (2016).

⁷⁴ Oyler-McCance (2016).

⁷⁵ Sean C. Kyle et al., The 2015 Lesser Prairie-Chicken Range-Wide Conservation Plan Annual Progress Report. (Western Association of Fish and Wildlife Agencies 2016). Hereafter “Kyle (2016)”.

⁷⁶ 61 Fed. Reg. 4725.

⁷⁷ Listing Petition at 11-12, 17, 18.

⁷⁸ Portions of Kansas may be an exception as populations expand into regions believed to be outside the LPC’s historic range. 79 Fed. Reg. at 20,009. Nonetheless, this expansion still does not support designation of a DPS as it would require FWS to taxonomically dissect species simply because they are expanding.

meaningful way. Indeed, regardless of any large-scale differences between the overall regions, LPCs in each area use the same type of type of habitat in the same way: LPCs nest in grass and low shrubs away from trees, and they lek in clearings close to nesting habitat.⁷⁹ That the low cover used for nesting may be provided by grass or sagebrush or shinnery oak merely makes these areas somewhat different – not unique or unusual.

As courts have admonished, “When a species exists across a wide range of ecological settings, . . . the fact that it persists in one particular location . . . says little about whether the population in that location is important to the species as a whole.”⁸⁰ The settings occupied by LPCs today are the same settings that LPCs have always occupied. Within these settings, LPC use the same type of habitat features and avoid the same types of features. The ecoregions used by LPC may differ from one another, but that is not the test for evaluating significance in the DPS analysis. Habitat features can be used to demonstrate a population segment’s significance to the taxon as a whole only if they are unique or unusual – and there is nothing unique or unusual about any of the ecoregions used by LPC.

Absent any meaningful demonstration of discreteness or significance, FWS was right to reject this aspect of the Listing Petition in the 90-day finding. The Trades support that determination and request that it be expressly restated in the 12-month finding.

V. THE LPC DOES NOT MEET THE ESA’S DEFINITION OF AN ENDANGERED OR THREATENED SPECIES

As an alternative to their request to list the LPC as three separate DPSs, Petitioners request that FWS list “the full species, lesser prairie chicken (*tympanuchus pallidicinctus*), as an ‘endangered species’ pursuant to the Endangered Species Act.”⁸¹ Notwithstanding the 90-day finding’s conclusion that this aspect of the Listing Petition was supported by substantial evidence, there is no basis for FWS to now conclude that LPCs meet the ESA’s definitions for either threatened or endangered species. Indeed, given the unprecedented conservation efforts, ongoing monitoring program, and the LPC’s known resiliency to seasonal drought, the LPC’s risk of extinction is remote, not ascertainable from the data available, and essentially unforeseeable. A conclusion otherwise would be arbitrary, capricious, a violation of the ESA, and an abuse of the Service’s discretion.

A. The ESA Requires a High Standard for Listing Species

The ESA sets a high standard for listing a species as threatened or endangered. An “endangered” species is statutorily defined as one that is presently in danger of extinction throughout all or a significant portion of its range.⁸² A “threatened” species is one that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.⁸³ When evaluating the status of a species, FWS must consider the following five factors:

⁷⁹ 79 Fed. Reg. 20,006-20,008.

⁸⁰ *Center for Biological Diversity v. Jewell*, No. CV-12-02296-PHX-DGC, 2014 WL 5703029, at *6 (D. Ariz. Nov. 5, 2014).

⁸¹ Listing Petition at 117.

⁸² 16 U.S.C. § 1532(6).

⁸³ *Id.* § 1532(20).

- (1) the present or threatened destruction, modification, or curtailment of its habitat or range;
- (2) overutilization for commercial, recreational, scientific, or educational purposes;
- (3) disease or predation;
- (4) the inadequacy of existing regulatory mechanisms; and
- (5) other natural or manmade factors that affect the species' continued existence.⁸⁴

In making these assessments, FWS must use “the best scientific and commercial data available” after conducting a review of the status of the species and taking into account the efforts being made by any nation or political subdivision of a nation to protect the species, including through predator control, protection of habitat and food supply, or other conservation practices.⁸⁵

Courts have universally held that the decision to list a species as threatened or endangered is not to be based on speculation or a misplaced intent to err on the side of species conservation:

Under Section 4, the default position for all species is that they are not protected under the ESA. A species receives the protections of the ESA only when it is added to the list of threatened species after an affirmative determination that it is “likely to become endangered within the foreseeable future.” Although an agency must still use the best available science to make that determination, *Conner [v. Burford]*, 848 F.2d 1441 (9th Cir. 1988) cannot be read to require an agency to “give the benefit of the doubt to the species” under Section 4 if the data is uncertain or inconclusive. Such a reading would require listing a species as threatened if there is any possibility of it becoming endangered in the foreseeable future. This would result in all or nearly all species being listed as threatened.⁸⁶

Whether a species should be listed under the ESA (or not) is not a question of whether the species is important, iconic, or deserving of conservation. Nor can species be listed based on a finding that they are being harmed, may be harmed in the future, or that certain threats are adversely impacting their abundance. Listing status is measured by the prospect that the species will cease to exist. Assessing the prospect of extinction is necessarily imprecise, and the Service’s judgments are entitled to deference if based on best available evidence and the five listing criteria, but the question the ESA requires FWS to answer does not change: Is this species at risk of extinction today, or is a risk of extinction likely to arise in the foreseeable future?

1. Foreseeable Future

⁸⁴ *Id.* § 1533(a)(1).

⁸⁵ *Id.* § 1533(b)(1)(A).

⁸⁶ *Trout Unlimited v. Lohn*, 645 F. Supp. 2d 929, 947 (D. Or. 2007); *see also Center for Biological Diversity v. Lubchenco*, 758 F. Supp. 2d 945, 955 (N.D. Cal. 2010) (finding that the “benefit of the doubt” concept does not apply in the Section 4 listing context); *Oregon Natural Resources Council v. Daley*, 6 F. Supp. 2d 1139, 1152 (D. Or. 1998) (ESA requires a determination as to the likelihood—rather than the mere prospect—that a species will or will not become endangered in the foreseeable future); *Federation of Fly Fishers v. Daley*, 131 F. Supp. 2d 1158, 1165 (N.D. Cal. 2000) (“The ESA cannot be administered on the basis of speculation or surmise.”).

The ESA does not define the term “foreseeable future.” FWS, however, has interpreted it to mean “the horizon over which predictions about the conservation status of the species can be reasonably relied upon.”⁸⁷ Because of the uncertainties inherent in attempting to predict the future, a forecast that is reasonably reliable—and thus encapsulates the “foreseeable future”—tends, at most, to look forward only a few decades. It does not allow for analyses based on speculation or those that are not grounded in facts and knowledge. “The timeframe over which the best available scientific data allow us to reliably assess the effect of threats on the species is the critical component for determining the foreseeable future.”⁸⁸

In other words, the foreseeable future extends only so far as FWS “can explain reliance on the data to formulate a reliable prediction.”⁸⁹ What must be avoided is reliance on assumption, speculation, or preconception. Thus, for a particular species, FWS may conclude, based on the extent or nature of data currently available, that a trend has only a degree or period of reliability, but to extrapolate that trend beyond that point would constitute speculation.⁹⁰ For instance, the Service can, and should, credibly question the reliability of projecting the frequency of drought conditions several decades into the future.

Moreover, evaluating the foreseeable future requires analysis of not only “the foreseeability of threats, but also . . . the foreseeability of the impact of the threats on the species.”⁹¹ The Solicitor’s M-Opinion explained that “in each case the Secretary must be able to make reliable predictions about the future. The further into the future that is being considered, the greater the burden to explain how the future remains foreseeable for the period being assessed.”⁹² As relevant here, this directive means that, in order for threats to LPC to be foreseeable, FWS must not only be able to reliably predict complex climatological changes specifically in LPC habitat, it must be able to reliably predict the LPC’s response to those changes. Here again, the best available information demonstrates that LPC have persisted for over a century in a region where drought and water-availability issues are not uncommon. While these conditions can decrease LPC abundance, LPC’s high rate of reproduction and large clutch sizes have always allowed populations to rebound and even expand. As such, even if FWS could reliably predict an increase in the frequency and duration of droughts at a scale relevant to LPCs, there is little basis to conclude that these conditions may drive LPCs to the brink of extinction when LPCs have persisted in similar conditions for as long as we have records – especially considering that historic levels of voluntary conservation are in place that will help LPCs endure drought conditions.

2. Mandatory Consideration of Conservation Efforts

The ESA was created to “provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate” to achieve those goals.⁹³ The terms “conserve,” “conserving,” and “conservation” mean “to use and

⁸⁷ 80 Fed. Reg. at 15,276 (emphasis added).

⁸⁸ 73 Fed. Reg. 28,212, 28,239 (May 15, 2008).

⁸⁹ Office of the Solicitor, U.S. Department of the Interior, *The Meaning of “Foreseeable Future” in Section 3(20) of the Endangered Species Act* at 8) (“M-Opinion”).

⁹⁰ Memorandum from Solicitor, United States Department of the Interior, Office of the Solicitor to Acting Director, U.S. Fish and Wildlife Service at p. 8 (January 16, 2009) (hereafter “Solicitor (2009)”).

⁹¹ Solicitor (2009) at p. 10.

⁹² Solicitor (2009) at p. 10

⁹³ 16 U.S.C. § 1531(b).

the use of *all methods and procedures* which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary.”⁹⁴ The Service’s⁹⁵ authority to list species as threatened or endangered therefore represents a tool in furtherance of this mandate—not the mandate itself.

While important, the ESA’s listing requirements and prohibitions are not the only tools available to FWS. In drafting the ESA, Congress understood that FWS would need to meet its mandate through actions outside of listing, like:

[E]ncouraging the States and other interested parties, through Federal financial assistance and a system of incentives, to develop and maintain conservation programs which meet national and international standards is a key to meeting the Nation’s international commitments and to better safeguarding, for the benefit of all citizens, the Nation’s heritage in fish, wildlife, and plants.⁹⁶

There is no better example of this type of collaboration than the efforts undertaken to protect the LPC and its habitat. Further, although Congress provided the listing process as a tool for conservation, it required FWS to first consider existing conservation efforts before making a decision to list.⁹⁷

As discussed above, the ESA requires FWS to consider five factors, including “the present or threatened destruction, modification, or curtailment of a species’ habitat range.”⁹⁸ FWS has interpreted this provision to require the Service “to consider the conservation efforts of not only State and foreign governments but also of Federal agencies, Tribal governments, businesses, organizations, or individuals that positively affect the species’ status.”⁹⁹

The ESA also requires that listing decisions be made “solely on the basis of the best scientific and commercial data . . . and after taking into account those efforts, if any, being made by any state or foreign nation or political subdivision of a state or foreign nation to protect such species”¹⁰⁰ The plain language of the ESA thus requires the FWS to consider conservation measures undertaken by other entities in determining whether listing of a species is warranted. The implementing regulations for the ESA similarly provide that the Secretary “shall take into account . . . those efforts, if any, being made by any State or foreign nation or any political subdivision of a State or foreign nation to protect such species”¹⁰¹

i. Joint Policy for the Evaluation of Conservation Efforts When Making Listing Decisions (“PECE Policy”)

⁹⁴ *Id.* § 1533(3) (emphasis added).

⁹⁵ The ESA imposes the statutory mandate on the Secretary of the Interior and the Secretary of Commerce, who have delegated those responsibilities to the Director of the Service and to the Assistant Administrator for Fisheries, respectively. *Id.* § 1533(15); 81 Fed. Reg. 7413, 7415 (Feb. 11, 2016).

⁹⁶ *Id.* § 1531(a)(5).

⁹⁷ *See Id.* § 1533(b)(1)(A) (requiring that a listing decision be made “solely on the basis of the best scientific and commercial data . . . and after taking into account those efforts, if any, being made by any state or foreign nation or political subdivision of a state or foreign nation to protect such species” (emphasis added)).

⁹⁸ 16 U.S.C. § 1533(a)(1)(A).

⁹⁹ 68 Fed. Reg. 15101, 15,113 (Mar. 28, 2003).

¹⁰⁰ 16 U.S.C. § 1533(b)(1)(A) (emphasis added).

¹⁰¹ 50 C.F.R. § 424.11(f) (emphasis added).

In 2003, the FWS and NMFS (collectively, the “Services”) published a Joint Policy for the Evaluation of Conservation Efforts When Making Listing Decisions (“PECE Policy”), which “identifies criteria [the Services] will use in determining whether formalized conservation efforts that have yet to be implemented or to show effectiveness contribute to making listing a species as threatened or endangered unnecessary.”¹⁰² The PECE Policy sets forth two fundamental criteria that guide the Service’s evaluation of whether new conservation measures may be considered in a listing decision: (1) the certainty that the conservation measure will be implemented; and (2) the certainty that the conservation measure will be effective.¹⁰³ Under the PECE Policy, the Service considers several criteria under each prong—implementation and effectiveness—in order to determine whether a specific conservation effort can be considered in the context of a listing decision.

To determine the “certainty that the conservation effort will be implemented,” the Service must evaluate the nine criteria set forth in the PECE Policy as follows:

1. The conservation effort, the party(ies) to the agreement or plan that will implement the effort, and the staffing, funding level, funding source, and other resources necessary to implement the effort are identified.
2. The legal authority of the party(ies) to the agreement or plan to implement the formalized conservation effort, and the commitment to proceed with the conservation effort are described.
3. The legal procedural requirements (*e.g.* environmental review) necessary to implement the effort are described, and information is provided indicating that fulfillment of these requirements does not preclude commitment to the effort.
4. Authorizations (*e.g.*, permits, landowner permission) necessary to implement the conservation effort are identified, and a high level of certainty is provided that the party(ies) to the agreement or plan that will implement the effort will obtain these authorizations.
5. The type and level of voluntary participation (*e.g.*, number of landowners allowing entry to their land, or number of participants agreeing to change timber management practices and acreage involved) necessary to implement the conservation effort is identified, and a high level of certainty is provided that the party(ies) to the agreement or plan that will implement the conservation effort will obtain that level of voluntary participation (*e.g.*, an explanation of how incentives to be provided will result in the necessary level of voluntary participation).
6. Regulatory mechanisms (*e.g.*, laws, regulations, ordinances) necessary to implement the conservation effort are in place.
7. A high level of certainty is provided that the party(ies) to the agreement or plan that will implement the conservation effort will obtain the necessary funding.

¹⁰² 68 Fed. Reg. 15,100 (Mar. 28, 2003).

¹⁰³ *Id.*

8. An implementation schedule (including incremental completion dates) for the conservation effort is provided.
9. The conservation agreement or plan that includes the conservation effort is approved by all parties to the agreement or plan.¹⁰⁴

The Service has indicated that a “high level of certainty of funding does not mean that funding must be in place now for implementation of the entire plan, but rather, it means that we must have convincing information that funding will be provided each year to implement relevant conservation efforts.” The Service also states: “[w]e believe that at least 1 year of funding should be assured, and we should have documentation that demonstrates a commitment to obtain future funding.”¹⁰⁵

To determine the “certainty that the conservation effort will be effective,” the Service must evaluate six criteria set forth in the PECE Policy as follows:

1. The nature and extent of threats being addressed by the conservation effort are described, and how the conservation effort reduces the threats is described.
2. Explicit incremental objectives for the conservation effort and dates for achieving them are stated.
3. The steps necessary to implement the conservation effort are identified in detail.
4. Quantifiable, scientifically valid parameters that will demonstrate achievement of objectives, and standards for these parameters by which progress will be measured, are identified.
5. Provisions for monitoring and reporting progress on implementation (based on compliance with the implementation schedule) and effectiveness (based on evaluation of quantifiable parameters) of the conservation effort are provided.
6. Principles of adaptive management are incorporated.¹⁰⁶

While the PECE Policy limits the Service’s consideration of conservation efforts to those which are reasonably certain to be implemented and which are similarly certain to benefit the species, *nothing* in the policy limits the Service to consider only those conservation efforts that are certain to eliminate *all* threats.¹⁰⁷ To the contrary, for purposes of evaluating the potential efficacy of conservation efforts, the PECE Policy requires only that the Service identify threats and conservation objectives, and evaluate whether the efforts “identify the appropriate steps to *reduce* threats to the species . . .”¹⁰⁸ Indeed, in making a listing decision, the Service must consider any conservation effort that the Service concludes “improves the status of the species . . .”¹⁰⁹

¹⁰⁴ 68 Fed. Reg. at 15,114-1

¹⁰⁵ *Id.* 15,108.

¹⁰⁶ 68 Fed. Reg. at 15, 115

¹⁰⁷ *See* 68 Fed. Reg. 15,100 (Mar. 28, 2003).

¹⁰⁸ 68 Fed. Reg. at 15,101.

¹⁰⁹ 68 Fed. Reg. at 15,101.

ii. *Candidate Conservation Agreements with Assurances*

In furtherance of the ESA's requirements to incentivize conservation, the FWS and NMFS adopted an approach to encourage the voluntary conservation of species before they are listed. In 1999, FWS and the NMFS issued a Joint Policy on Candidate Conservation Agreements with Assurances ("CCAA or "Conservation Plans").¹¹⁰ The policy's goal is to encourage states and private parties, on whose land habitat for candidate species is situated, to undertake measures to conserve candidate species by implementing mutually agreed upon conservation measures. In return, the policy establishes that participants obtain the certainty that they will not be required to undertake additional conservation measures should the species become listed in the future.¹¹¹ FWS provides this certainty to participating landowners through the issuance of an enhancement of survival permit under Section 10 of the ESA.¹¹² Once a CCAA is adopted, the Service's regulations provide for the issuance of an enhancement of survival permit if the candidate species is ultimately listed as endangered or threatened.¹¹³ More importantly here, the Service's 2008 guidance on CCAs makes clear that the principal goal of CCAs is to render listing of a species *unnecessary* through coordination of conservation efforts with states, private landowners, and other non-federal partners.¹¹⁴

B. LPC Abundance and Range

We begin our discussion of the conservation status of the LPC by discussing the range and abundance of the species. Abundance is important because it provides a measure of the health of the species and a basis for assessing the likelihood of extinction. The LPC's range is important because the extent and quality of LPC habitat has always been, and continues to be, the most important factor impacting the conservation status of LPC. As noted in the subsections that follow, both of these factors demonstrate that LPC are not on the brink of extinction or likely to become so in the foreseeable future. LPC range is expanding and better protected than at any point in history, and LPC populations are stable if not growing.

1. LPC Survey Data Indicate the Species Continues To Recover From Historic Lows

The Listing Petition suggests that LPCs are at risk of extinction because their present abundance "represents less than 1% of the original total."¹¹⁵ Petitioners describe the "original total" as "the historic population estimate of three million birds furnished by Johnsgard (2002)."¹¹⁶

The suggestion that Johnsgard (2002) provided a population estimate is a profound overstatement. Johnsgard (2002), which was written as a call to action to conserve grassland grouse, actually says:

There are no good estimates of the original numbers of less prairie-chickens in the Southwest and only a few educated guesses. . . One early (1945) estimate by the

¹¹⁰ 64 Fed. Reg. 3276 (June 17, 1999).

¹¹¹ *Id.* at 32,733-34.

¹¹² *Id.*

¹¹³ 50 C.F.R. §§ 17.22(d), 17.32(d).

¹¹⁴ See FWS, Using Existing Tools to Expand Cooperative Conservation for Candidate Species Across Federal and non-Federal Lands 1, 2 (2008).

¹¹⁵ Listing Petition at 41.

¹¹⁶ Listing Petition at 41.

Texas Game, Fish, and Oyster Commission suggested that as many as 2 million less-prairie chickens may have been present in Texas before 1900, a density representing about 20 birds per square mile. If that is the case, then overall population of the species might have once approached 3 million. There are no estimates for the original populations of Kansas, Oklahoma, New Mexico, or Colorado¹¹⁷

This paragraph provides the entire basis for Petitioners’ “three million bird” estimate. As noted therein, Johnsgard (2002) provides, at best, an educated guess based on a 72 year old anecdotal report in one state. The first known LPC surveys, which were geographically limited and not particularly rigorous, did not occur until the 1940s.¹¹⁸ Range-wide estimates were “almost nonexistent” until the 1960s.¹¹⁹

The authors of Johnsgard (2002) did not hold out this educated guess as a credible baseline from which to evaluate population trends and know of no researchers who suggest otherwise. Even FWS, in its final rule to list the LPC in 2004, considered this early population data to be deficient.¹²⁰ There is no basis to conclude otherwise now.

Even if Johnsgard (2002) could credibly be construed as providing a reasonable estimate of LPC abundance prior to European settlement of the Western United States, comparing current population estimates to population estimates for an era preceding European settlement is entirely irrelevant to LPC conservation status. The ESA requires a forward-looking analysis. Declines from historic populations can be considered in listing decisions only to the extent that the declines provide relevant information on the present conservation status of the species.¹²¹ The fact that the Southwestern United States may have held more LPCs prior to European settlement is irrelevant to the current conservation status of the species. To the contrary, population estimates from previous years may be relevant if they can be used to establish trends. Importantly, the best available data depict a population trend that is stable, if not increasing.

The annual WAFWA range-wide LPC surveys, which began in 2012, provide the first ever statistically valid range-wide survey for the species.¹²² The survey provides a robust methodology, in which the aerial results were verified with ground surveys. The survey’s parameters also were conservative: a minimum of five LPCs per lek must have been observed for the lek to be considered an “active lek” and reported in the survey results, the model used the fewest number of variables, and reported results have a 90% confidence interval.¹²³ Prior range-wide estimates were the product of a compilation of state surveys conducted at different times using inconsistent (and less rigorous) methodologies.¹²⁴ Even those studies, however, demonstrated LPC populations as being stable, if not increasing, since the 1960s.¹²⁵ The Service’s most recent estimates using (albeit

¹¹⁷ Paul A. Johnsgard, *Grassland Grouse and Their Conservation*, at 157 (Smithsonian Institution Press 2002).

¹¹⁸ Edward O. Garton et al., *Ecology and Conservation of Lesser Prairie Chickens: Population Dynamics of the Lesser Prairie Chicken*, 49-76 (David A. Haukos & Clint W. Boal eds., 2016) at 50. Hereafter “Garton (2016).”

¹¹⁹ 79 Fed. Reg. at 20,010.

¹²⁰ 79 Fed. Reg. at 20,010.

¹²¹ *WildEarth Guardians v. Jewel*, 134 F. Supp. 3d 1182 (D. AZ 2015).

¹²² 77 Fed. Reg. at 73846.

¹²³ Other studies consider leks to be “active” with much fewer birds displaying. For example, in Verquer and Smith, 2011, p. 1-2, leks were considered active if three males are displaying on the lek. *See* 77 Fed. Reg. at 73847-48.

¹²⁴ 79 Fed. Reg. at 20,010.

¹²⁵ 79 Fed. Reg. at 20,010.

inferior) state-derived data populations in 2012 that were 2,000 birds higher than the Service’s uppermost estimate for the 1960s, and even within the range of the 1980 estimate—the highest known range-wide LPC population estimate using state-derived data.

While the annual WAFWA range-wide LPC survey data provided entirely new range-wide estimates of LPC abundance, they supported the positive trend data that was observed in the state-derived data. The survey results for 2012-2016 are as follows:

| <u>Region</u> | 2012 | 2013 | 2014 | 2015 | 2016 |
|-----------------------|---------------|---------------|---------------|---------------|---------------|
| Shinnery Oak Prairie | 4,108 | 2,167 | 1,474 | 896 | 3,255 |
| Sand Sage Prairie | 2,680 | 2,173 | 513 | 897 | 1,479 |
| Mixed Grass Prairie | 10,318 | 4,350 | 7,686 | 10,027 | 6,891 |
| Shortgrass/CRP Mosaic | <u>21,561</u> | <u>11,606</u> | <u>14,289</u> | <u>18,165</u> | <u>14,025</u> |
| Total | 38,667 | 20,297 | 23,962 | 29,985 | 25,651 |

As this data indicate, LPC populations in the different ecoregions in the species’ range remain quite stable and, in fact, are growing in important areas. As expected, LPC populations have rebounded from the effects of the 2012 drought (reflected in 2013 survey data). Indeed, with the exception of the drought-induced population decline (from 2012 to 2013), and the subsequent rebound after the drought abated (from 2013-2014), the study authors did not consider any of the range-wide changes to be statistically significant.¹²⁶

Between 2015 and 2016, the study authors reported statistically significant increases in three out of the four ecoregions, including increases in the shinnery oak and sand sage prairie ecoregions that Petitioners characterize as the most imperiled.¹²⁷ Even where ecoregion-specific decreases were recorded between 2015 and 2016, the study authors did not consider those decreases statistically significant when compared against the multi-year average.¹²⁸ In fact, those decreases are consistent with the year-over-year population variability that is a well-documented characteristic of LPC populations.¹²⁹

Importantly, the 2016 estimate of 25,651 was used for purposes of the population trend analysis because it covered the same cells surveyed from 2012-2015.¹³⁰ The 2016 survey, however, was increased to include new survey areas.¹³¹ Based on that larger survey area, the total population estimate is actually 27,926 (90% CI: 20,704, 37,209).¹³² Importantly, a large part of the increased abundance identified by expanding the survey area was in the shinnery oak ecoregion¹³³ – the

¹²⁶ Lyman McDonald et al., Range-Wide Population Size of the Lesser-Prairie-Chicken: 2012, 2013, 2014, and 2015. (West, Inc. 2016). Hereafter “McDonald (2016)”.

¹²⁷ McDonald (2016).

¹²⁸ McDonald (2016).

¹²⁹ McDonald (2016).

¹³⁰ McDonald (2016).

¹³¹ McDonald (2016).

¹³² McDonald (2016).

¹³³ McDonald (2016).

population segment that Petitioners identify as the most imperiled.¹³⁴ The 2016 population estimate for the shinnery oak habitat increased nearly 30% to 4,584 – the highest estimate ever recorded, 82% higher than the 2015 estimate,¹³⁵ and, according to Garton (2016), above the carrying capacity for the Shinnery Oak Ecoregion.¹³⁶

The Listing Petition’s characterization of LPC abundance is misleading. The best survey data available demonstrate that populations are stable and, in fact, growing in important regions. Given these “best available” survey data, there is simply no way that FWS could conclude that LPCs are likely to be driven to the brink of extinction in the foreseeable future.

2. Effective Population Sizes Far Exceed All Applicable Risk Thresholds

The Listing Petition also argues that LPC are at risk due to their low “effective population size.”¹³⁷ An “effective population size” is an estimate of the number of sexually mature individuals that are capable of reproducing.¹³⁸ Effective population size estimates can be important for conservation and recovery planning because it provides a metric for estimating the prospect of genetic depression and loss of biological fitness as a result of genetic depression.¹³⁹ As effective population size decreases, inbreeding likely increases and therefore the likelihood of genetic depression increases as well.

Franklin (1980) introduced a generic “rule of thumb” indicated that populations below 50 individuals are likely to experience inbreeding depression in the short-term, and populations below 500 will experience inbreeding depression in the long-term. Importantly, simply noting that a species is at risk of genetic depression does not mean that the species is necessarily at risk of extinction. Inbreeding depression is present in all small populations and, some deleterious recessive alleles will be present in all populations. For inbreeding and genetic depression to negatively affect a species, it must also affect traits that influence population viability. Indeed, the “50/500 standard” repeatedly cited in the Listing Petition, was characterized by the study authors as a genetic “warning light” and a target for conservation planning.¹⁴⁰ As such, even if the LPC’s effective population size were below 50 or 500, this fact alone would provide an insufficient basis on which to list the species. As it were, LPC effective population sizes are well above 500 range-wide and in each ecoregion individually. Moreover, the best available scientific data shows that it is very unlikely that LPCs will fall below an effective population size of 50 or 500 within 100 years.¹⁴¹ To the contrary, the data indicate that populations of LPC are more than sufficient to perpetuate the species through reproduction, avoid genetic inbreeding depression, and provide resiliency from stochastic events.

Garton (2016), which Petitioners cite extensively but selectively, assessed the likelihood that LPCs in each ecoregion and range-wide would fall below effective population sizes of 50 and 500 on 30

¹³⁴ Listing Petition at 7.

¹³⁵ McDonald (2016).

¹³⁶ Garton (2016).

¹³⁷ Listing Petition at 111.

¹³⁸ I.R. Franklin and R. Frankham, How Large Must Populations be to Retain Evolutionary Potential, 1.1, 69-73 (Animal Conservation 1998). Hereafter “Franklin and Frankham (1998)”.

¹³⁹ Franklin and Frankham (1998).

¹⁴⁰ Franklin and Frankham (1998).

¹⁴¹ Garton (2016).

year and 100 year time frames.¹⁴² Importantly, the study makes these projections based on an assumption that habitat fragmentation and connectivity loss will continue at historically high-rates.¹⁴³ In other words, it assumes development rates that are unlikely to ever be realized and that none of the many current state and voluntary conservation programs will be in place to help maintain population growth and connectivity.¹⁴⁴ It similarly does not consider evidence of population stabilization since 2012, was biased low because of the 2012 “drought-induced” survey results, and overestimated the risk from stochastic events.¹⁴⁵ Further, Garton (2016) presumed a significant level of genetic isolation by distance. Additional research conducted by Earl *et. al.* (2016), however, indicates that lesser prairie chicken movement is far greater than previously thought, with some individuals dispersing up to 71 kilometers. This data would suggest that small “isolated” populations may not be as far removed from the larger populations and the associated genetic diversity necessary to maintain population viability.

Even with these multiple reasons for overestimating the potential decline of effective population size, Garton (2016) concluded that it was unlikely that LPC effective populations - range-wide or in any ecoregion - would fall below 50 individuals over the next 30 years.¹⁴⁶ Only one ecoregion (Sand Sagebrush) was considered likely to fall below 500 individuals within 30 years, and only if historic trends development trends and population declines continued unabated and without any recovery efforts for duration of the 30-year period.¹⁴⁷

On a 100-year horizon, only the Sand Sagebrush ecoregion was considered likely to drop below an effective population size of 50. The range-wide population, the Shinnery Oak Ecoregion, and Mixed Grass Prairie ecoregion were considered likely to have effective population sizes fall below 500 within the next century – and again, only if unrealistic historic trends “were to continue for 100 years,”¹⁴⁸ and only if “there are no future changes in connectivity and the extent and quality of necessary habitats.”¹⁴⁹

Indeed, the authors of Garton (2016) seemingly recognized that the more recent survey data and successful efforts to protect and improve connectivity provide ample reason to believe that LPC effective populations are unlikely to reach these “warning light” levels over the next century, much less drive LPC to the brink of extinction. Garton (2016) recognized the importance of the ongoing efforts to maintain and improve genetic connectivity through the protection of corridors between the populations.

Estimates of short- and long-term persistence for Lesser Prairie Chickens based on population reconstructions from > 45 of lek counts provide optimism for potential reverses of recent declines when assessed as a metapopulation. The fact that 68% of the current range-wide population shows stable to increasing year coefficients implies that carrying capacities have been and will continue to be increasing.¹⁵⁰

¹⁴² Garton (2016).

¹⁴³ Garton (2016).

¹⁴⁴ Garton (2016).

¹⁴⁵ Garton (2016).

¹⁴⁶ Garton (2016) at 63.

¹⁴⁷ Garton (2016) at 63.

¹⁴⁸ Garton (2016) at 63.

¹⁴⁹ Garton (2016) at 72.

¹⁵⁰ Garton (2016) at 72.

Accordingly, it is unreasonable to suggest that the LPC population as a whole, nor any identified populations segments within specific ecoregions are at risk of extinction due to effective population size in the near or long-term. Nor can Garton (2016) be construed as suggesting that LPCs are “likely” to be driven to the brink of extinction within the foreseeable future. As such, FWS cannot use projections of reduced population size as a basis to list LPCs as threatened under the ESA.

3. Range is Expanding and is Better Protected

Petitioners argue that range occupation trends are key indicators in determining whether the LPC is a “threatened” species under the ESA.¹⁵¹ The Trades agree. As with population trends, however, the Listing Petition evaluates habitat loss relative to speculative and largely irrelevant pre-European Settlement occupancy estimates.¹⁵² While it is true that occupied LPC habitat has likely decreased significantly since the Southwest was settled by Europeans, it is also true that the vast majority of habitat loss occurred prior to 1950,¹⁵³ and that near-term trends reflect the expansion of range and occupied habitat.¹⁵⁴

The historic range of the lesser prairie chicken comprised a significant portion of western Texas, western Oklahoma, eastern New Mexico, southeastern Colorado, and southwestern Kansas. The historic range included a variety of habitat types ranging from short- and mixed-grass prairies to sand-sage and shinnery oak prairies. Row crop production and other anthropogenic activities have resulted in habitat loss across large portions of the range.¹⁵⁵ Current lesser prairie chicken populations have been identified within four distinctive eco-regions: shinnery oak prairie, sand sagebrush prairie, mixed-grass prairie, and short-grass prairie – which are found within the confines of the historic range.

Lesser prairie chicken were historically found in sand sagebrush and mixed-grass prairie south of the Arkansas River.¹⁵⁶ Due in large part to increased use of the NRCS Conservation Reserve Program (“CRP”), however, large populations of lesser prairie chicken are now found in short-grass prairie habitats to the north of the Arkansas River in Kansas.¹⁵⁷ Additional populations are also using other areas of the historic range that were previously determined to be unsuitable¹⁵⁸ and expanding the occupied areas around existing leks.

Research also suggests that populations are generally trending northward¹⁵⁹ perhaps taking advantage of more favorable moisture regimes. A northern shift would move the species into areas where CRP is more prevalent and thereby be moving to areas that have been improved through

¹⁵¹ Listing Petition at 50.

¹⁵² Listing Petition at 28.

¹⁵³ David Spencer et al., *Global Ecology and Conservation: Conservation Reserve Program Mitigates Grassland Loss in the Lesser Prairie-Chicken Range of Kansas*, 9, at 21-38 (2017). Hereafter “Spencer (2017)”.

¹⁵⁴ Olyer-McCance (2016).

¹⁵⁵ Christian A. Hagen et al., *Managing Lesser Prairie-Chicken Populations and their Habitats*. 32, 69-82 (Wildlife Society Bulletin 2004).

¹⁵⁶ Lyman McDonald et al., *Range-Wide Population Size of the Lesser-Prairie-Chicken: 2012, 2013*. 38, 536-546 (Wildlife Society Bulletin 2014); Garton (2016).

¹⁵⁷ Olyer-McCance (2016); Spencer (2017).

¹⁵⁸ V. L. Winder, et al., *Responses of Male Greater Prairie-Chickens to Wind Energy Development*, 117, 284-296 (Condor 2015); Earl (2016); McDonald (2016)

¹⁵⁹ Earl (2016).

some of the most long-standing conservation actions.¹⁶⁰ Importantly, however, all currently occupied habitat is being protected through a mixture of regulatory and voluntary efforts. In fact, as habitat has always been used as a proxy for LPC abundance, habitat protections and improvement are essentially the singular focus of all LPC conservation efforts. These conservation measures occur across millions of acres within the historic range and represent an unprecedented level of voluntary activity that results in both direct (conservation measures at the site level) and indirect (fees and mitigation) benefits to the species. These efforts are discussed at length in Subsection E below.

Accordingly, the reversal of historic declines in range occupancy, expansions outside of historic range, and unprecedented level of habitat improvement and protection demonstrate that habitat loss is no longer a factor which threatens to drive LPCs to the brink of extinction. To the contrary, the best available data indicate that habitat protections can insure the future stability and growth of LPC abundance.

C. Habitat Modification Does Not Threaten LPC

In addition to larger-scale efforts to protect and improve habitat and connectivity, there are numerous efforts in place to improve how human activity in LPC habitat can be managed in a way that reduces or eliminates adverse impacts to LPCs. While these efforts are widespread across multiple industries, we herein discuss only oil and gas development. Importantly, while there are numerous measures in place to reduce the impact of oil and gas development on LPCs, recently available data indicates that oil and gas development may have far less of an impact on LPCs than previously estimated.

1. Oil and Gas Development Does Not Threaten LPC

The Listing Petition draws conclusions about oil and gas development that are not realistic or indicative of current operations. Indeed, Petitioners are either profoundly misinformed about oil and gas development or intent on portraying the industry in the worst light possible.

Consider horizontal drilling technology. Petitioners identify this important technology as a potential cause of increased activity,¹⁶¹ but ignore its favorable impact on reducing surface disturbance. Innovative new technologies like horizontal and directional drilling can reduce well density while dramatically increasing the rate of recovery of oil and natural gas from each well at the same time.¹⁶² A single horizontal well can now take the place of 8 to 16 vertical wells.¹⁶³ Up to 32 directional wells can be clustered on a single well pad, making vertical drilling techniques an inefficient last resort.¹⁶⁴ Directional and horizontal wells require fewer wells to be drilled, less

¹⁶⁰ Spencer (2017).

¹⁶¹ Listing Petition at 53 citing C.S. Jarnevich, and M. K. Laubhan, *Balancing Energy Development and Conservation: A Method Utilizing Species Distribution Models*, 47, 926-936 (Environmental Management 2011).

¹⁶² *Gaining Ground: Industry Innovation Reduces Impacts on Sage-Grouse and Big Game*, *Western Energy Alliance*, 2016, at 2.

¹⁶³ *Id.*

¹⁶⁴ *Id.* at 5.

maintenance, and fewer roadways.¹⁶⁵ As a result, modern oil and gas operations can result in a nearly 70% reduction in habitat disturbance from traditional extraction practices.¹⁶⁶

This technology is not only effective in reducing the surface footprint of oil and gas development, it results in a greater rate of recovery than traditional development and is increasingly widespread. In a study of well permits issued in Wyoming from 2006 to 2012, vertical well permits decreased by 65% while horizontal and directional permits increased by 66% and 1,337%, respectively.¹⁶⁷ This important information is conspicuously absent from the Listing Petition, which instead relies on studies of LPC impacts dated as far back as 1940.¹⁶⁸

As noted throughout the petition, the density of oil and gas wells is “an increasingly important factor” in preserving leks and avoiding habitat fragmentation. The oil and gas industry has embraced this reality with collaborative conservation efforts and innovative technology. While the petition assumes increased well density from future oil and gas operations, the petition completely ignores a dramatic shift toward more efficient drilling techniques.

The Listing Petition also confidently predicts significant increases in oil and gas operations across the LPC range due to increases in per capita energy demands.¹⁶⁹ As the Trades are keenly aware, however, predictions of future energy demands are rarely correct and, while demand is a factor that may be considered in estimating future drilling activity, it is far from the only relevant factor. Regulations, energy efficiency, and energy diversification,¹⁷⁰ and energy prices all play a role in predicting how future energy demands will be met.

For example, in June 2008, WTI crude oil eclipsed \$150 per barrel, but quickly fell below \$30 per barrel in 2016.¹⁷¹ This drastic downturn in crude oil costs is ongoing and has had a significant and well-documented impact on drilling activity in LPC habitat and elsewhere. In fact, we can see the measurable decline in activity in LPC habitat by a reduction in the number of wells planned due to whatever causal factor will be reflected in a reduction in mitigation offset requests under the RWP. Similarly, the increasing trend toward clustering and co-location of drilling projects to achieve efficiencies in field development can also lead to a reduction in mitigation offset requests, in situations where impacts from later phases of a project occur within an area for which offsets have already been obtained and/or provided. Notwithstanding this superior data, the Listing Petition alleges risks to LPC populations based on outdated studies of “petroleum development at intensive levels” now and well into the foreseeable future.¹⁷² To the extent petitioners anticipate

¹⁶⁵ Gaining Ground: Industry Innovation Reduces Impacts on Sage-Grouse and Big Game, *Western Energy Alliance*, 2016, at 5.

¹⁶⁶ Applegate, D.H. and Owens, N.L. 2014. Oil and gas impacts on Wyoming’s sage grouse: summarizing the past and predicting the foreseeable future. *Human-Wildlife Interactions* 8(2): 284-290.

¹⁶⁷ Gaining Ground: Industry Innovation Reduces Impacts on Sage-Grouse and Big Game, *Western Energy Alliance*, 2016, at 5.

¹⁶⁸ Listing Petition at 56, citing F. S. Henika, Present Status and Future Management of the Prairie-Chick in Region 5. Special Report to the Texas Game, Fish and Oyster Commission (1940), Project 1-R, 15 pp.

¹⁶⁹ Listing Petition at 51, citing B. A. Grisham et al., *Climate Change*, 48, 221-242 (Avian Biology 2016a).

¹⁷⁰ 2017 Outlook for Energy: a View to 2040, ExxonMobil, 2017, http://cdn.exxonmobil.com/~media/global/files/outlook-for-energy/2017/2017_outlook_for_energy.pdf (last visited January 4, 2017).

¹⁷¹ Crude Oil Prices – 70 Year Historical Chart, <http://www.macrotrends.net/1369/crude-oil-price-history-chart> (last visited January 4, 2017).

¹⁷² Listing Petition at 59, citing J. L. Hunt, and T. L. Best, Investigation into the Decline of Populations of the Lesser Prairie-Chicken (*Tympanuchus Pallidicinctus*) on Lands Administerd by the Bureau of Land Management, Carlsbad

and rely on unrealistic predictions for a volatile market, many of their conclusions are simply unreliable.

The Listing Petition also overestimates the potential risk to LPCs presented by oil and gas development. Unlike other types of development, the majority of oil and gas development impacts are temporary. The overall lifecycle of a well on the landscape is a mostly hands-off process. The majority of well activity occurs during the initial development phase that lasts only a few short weeks – after which, when the well is put into production, the activity level becomes very minimal.¹⁷³ Vertical structures are largely removed after production, and recent evidence indicates that LPCs tolerate the low density of oil and gas structures that may remain present on the landscape during the production stage.¹⁷⁴ These structures may define LPC habitat suitability to some extent, but far less than natural features such as elevation and tree cover.¹⁷⁵

Fences and other structures are similarly reduced after initial development of the well. And, at any rate, recent studies reveal that fences are not a significant source of LPC mortality.¹⁷⁶ Noise and vehicle traffic, which are negatively associated with LPC presence, are nearly nonexistent for the majority of the lifetime of a well. Indeed, while there may be evidence of LPC avoidance behavior during brief periods of development, there is evidence that LPCs quickly adapt to, and even utilize, roads and well pads once wells go into production.¹⁷⁷

Development of midstream (pipeline) activities is very similar. The initial development phase includes a significant amount of activity and traffic, and then very little activity for the remainder of the lifetime of the pipeline. After installation, only minimal on-site activity is required and road traffic from oil and gas operations is limited.

As such, the best available data indicates that, although oil and gas activities can adversely impact LPC presence, those impacts are more modest than previously understood, temporally limited, and mitigated by technologic advances. On these facts alone, FWS should conclude that oil and gas development will not drive LPCs to the brink of extinction within the foreseeable future. These facts, however, are not the only facts relevant to this analysis. Section XX discusses the unprecedented level of conservation effort undertaken by the oil and gas industry to mitigate any impacts on LPC populations and improve and protect LPC habitat.

D. Climate Change Does Not Threaten LPC

Field Office, New Mexico. Final Report to the Bureau of Land Management, Cooperative Agreement GDA010007, 160 pp (2004).

¹⁷³ As the petition notes, some studies have found only a limited relationship between oil and gas operations and LPC populations, finding that major roads are often more influential of behavior than the temporary impacts of oil and gas operations. Listing Petition at 59, citing J. M. Timmer, Relationship of Lesser Prairie-Chicken Density to Landscape Characteristics in Texas. MS Thesis, Texas Tech. University, 131 pp. (2012).

¹⁷⁴ T. J. Hovick et al., Predicting Greater Prairie-Chicken Lek Site Suitability to Inform Conservation Actions. 10.8 (PlosOne 2015). Hereafter “Hovick (2015)”.

¹⁷⁵ Hovick (2015).

¹⁷⁶ S. G. Robinson et al., Lesser Prairie-Chicken Fence Collision Risk across its Northern Distribution, 80, 906-915 (Journal of Wildlife Management 2016).

¹⁷⁷ 79 Fed. Reg. at 20,007; K. M. Giesen, The Birds of North America, No. 364: Lesser Prairie-Chicken (*Tympanuchus Pallidicinctus*), (The Birds of North America Inc. 1998); J.M. Timmer et al., Abundance and density of lesser prairie-chickens and leks in Texas, 37, 741-749 (Wildlife Society Bulletin 2013).

Petitioners allege that climate change and climate change-induced increases in the frequency and duration of droughts in LPC habitat will contribute to LPC declines and place the species on the brink of extinction within the foreseeable future.¹⁷⁸ Critically, Petitioners apparently view climate change as a threat only when examined in conjunction with other factors (such as habitat loss and fragmentation).¹⁷⁹ As such, the conservation efforts that protect against habitat loss and fragmentation that are discussed throughout these comments should lead FWS to conclude that climate change is also not likely to drive LPCs to the brink of extinction within the foreseeable future. Nonetheless, the Listing Petition’s analysis is erroneous for other reasons as well.

As a threshold matter, the Trades question whether the models cited by Petitioners have the ability to accurately predict future global or geographically specific temperatures. Global climate models, including those used by the Intergovernmental Panel on Climate Change (“IPCC”) cannot be readily downscaled to the much more limited dimensions relevant to a biological status assessment such as this. Indeed, the IPCC generally constrains itself to global or hemispheric predictions. Such constraint is particularly appropriate when evaluating impacts in LPC habitat, where predictions of climate change-induced drought must be distinguished from seasonal or cyclical drought conditions that have plagued this region since well before the supposed advent of climate change – or the Industrial Revolution for that matter.

Nonetheless, even accepting Petitioners’ assertions of future climate change impacts in LPC habitat as valid, there is no reason to conclude that climate change is likely to drive LPCs to the brink of extinction within the foreseeable future. Current data suggests that the American Midwest has experience a 1.5° F trend to warmer temperatures from 1895 to 2012.¹⁸⁰ Many climate scientists predict more extreme variations to weather patterns – increasing storms, increasing drought, greater fluctuations in weather and temperature extremes – as climate change continues to trend to warmer temperature regimes. While these studies may reasonably identify conditions which could impact LPCs in the future, a credible assessment of whether these projected conditions will place the species at risk of extinction requires an additional analysis of the LPC’s biological response to these climatic changes.

There is no question that droughts adversely impact LPC abundance. We observed drought-based declines in the 2012 Range-wide Survey data, and we were able to observe these drought impacts because LPCs have *always* endured these types of conditions.¹⁸¹ These same surveys and a recent study provide evidence that LPCs’ lifespans and reproductive rates allow the species to quickly recover from intermittent downturns in abundance.¹⁸² Additionally, recent studies provide further evidence that LPC populations have adapted to differing moisture regimes and populations appear to be shifting to the northern extremes of the range.¹⁸³

¹⁷⁸ Listing Petition at 107.

¹⁷⁹ Listing Petition at 109.

¹⁸⁰ Kunkel, K. E., L. E. Stevens, S. E. Stevens, L. Sun, E. Janssen, D. Wuebbles, S. D. Hilberg, M. S. Timlin, L. Stoecker, N. E. Westcott, and J. G. Dobson, 2013: Regional Climate Trends and Scenarios for the U.S. National Climate Assessment: Part 3. Climate of the Midwest U.S. NOAA Technical Report NESDIS 142-3. 103 pp., National Oceanic and Atmospheric Administration, National Environmental Satellite, Data, and Information Service, Washington, D.C.

¹⁸¹ 77 *Id.* at 73867-68.

¹⁸² Ross (2016).

¹⁸³ Earl (2016).

Moreover, very recent studies indicate that LPC nest selection is based on features and conditions at a microhabitat scale.¹⁸⁴ Climate conditions were found to have the weakest connection to nest selection, brood success, and survival.¹⁸⁵ In fact, the authors were not able to detect any impacts from climate conditions on LPCs.¹⁸⁶

Again, the Trades do not dispute that drought conditions adversely impact LPC abundance or that drought conditions will occur in the future. The best available scientific information, however, indicates that LPCs are adapted to endure and recover from such conditions. LPC's resiliency to periodic drought conditions is substantially increased due to the habitat protections in place across its range. Therefore, there is no basis to conclude that climate change and/or drought conditions – alone or in conjunction with other potential risk factors – are likely to drive LPCs to the brink of extinction in the foreseeable future.

E. Consideration of Voluntary Conservation Efforts

As explained above, the plain language of the ESA requires the FWS to consider conservation measures undertaken by other entities in determining whether listing of a species is warranted. The PECE Policy sets forth the criteria that guide the Service's evaluation of whether new conservation measures may be considered in a listing decision: (1) the certainty that the conservation measure will be implemented; and (2) the certainty that the conservation measure will be effective.¹⁸⁷

Even though there were a large number of voluntary conservation efforts in place and/or capable of review at the time of the 2014 Listing Decision, FWS largely failed to conduct the analysis required by the PECE Policy. In fact, FWS only conducted a PECE Policy analysis for a single effort – the RWP. FWS did not conduct a PECE analysis for any of the dozens of other conservation efforts, individually or cumulatively.

In assessing the RWP in 2014, FWS concluded that “there was a high degree of certainty that the plan will achieve its stated purposes of creating a net conservation benefit to the species and moving the species towards its population goals. . . .”¹⁸⁸ Elsewhere and without explanation, FWS concluded that, even though the Service was “highly certain” that the RWP would be effective in protecting LPC habitat, it could not conclude that listing was not warranted because the RWP's habitat improvements would not be fully implemented at the time of the listing decision.¹⁸⁹ The Western District of Texas rejected this analysis as inconsistent with the PECE Policy and as inappropriate given that the listing decision concluded that the LPC's risk of extinction would only arise (if at all) in the future.¹⁹⁰

The sole remaining reason why FWS concluded that the RWP would not be enough to avoid listing was the Service's uncertainty over future enrollment, and the availability of funds generated through future enrollment.¹⁹¹ Notwithstanding that on the eve of the final listing over 3.6 million

¹⁸⁴ Grisham (2016); Earl (2016).

¹⁸⁵ Earl (2016).

¹⁸⁶ Earl (2016).

¹⁸⁷ *Id.*

¹⁸⁸ 79 Fed. Reg. at 19,980.

¹⁸⁹ 79 Fed. Reg. at 19,980.

¹⁹⁰ *See PBPA v. DOI.*

¹⁹¹ 79 Fed. Reg. at 19,980.

acres were enrolled and nearly \$21 million in fees were raised for LPC habitat conservation under the RWP,¹⁹² FWS deemed the likelihood of future or continued enrollment to be too speculative because landowners may withdraw from the RWP once the prospect of an impending listing was removed.¹⁹³ Not only was this conclusion based on a fundamental misunderstanding of how the RWP operates, it has been proven to be incorrect. The Western District of Texas vacated the 2014 Listing Decision over 16 months ago, and yet the RWP continues to maintain high levels of enrollment and is attracting new enrollment. The RWP is also generating millions in conservation funding that is increasingly invested, is making progress toward each of its goals, and, most importantly, the RWP and the dozens of other conservation efforts are working – LPC populations have stabilized and growing in key areas; habitat is expanding, better protected, and actively being improved; and connectivity is increasing and contributing to the resiliency of the species.

Based on the RWP alone, FWS should reject the Listing Petition and conclude that LPCs do not meet the statutory definition of threatened or endangered species. But FWS should not consider the RWP alone – it should – in fact, must – consider the individual and cumulative impacts of each of the important voluntary efforts that have contributed to the successful recovery of LPCs. The Trades provide a table briefly describing a few of these efforts below. We also provide the most recent statistics on implementation of the RWP as best available evidence that affirmatively disproves Service’s prior conclusions about the uncertainty of future enrollment. We then conclude with a brief discussion of why voluntary conservation efforts such as these are more effective than the simple act of listing a species under the ESA.

1. The LPC is Being Protected Through Historic Levels of Voluntary Commitments

While the RWP represents one of the most comprehensive efforts to protect LPC and conserve LPC habitat, it is by no means the only conservation effort. A number of voluntary conservation programs across the LPC range have helped stabilize LPC populations. This section provides a discussion of some of the more extensive conservation efforts. FWS must consider each of these efforts – individually and collectively – in making its 12-month finding on whether the listing requested by Petitioners is warranted.

Lesser Prairie-Chicken Conservation Initiative (LCPI) and Other NRCS Programs - In 2010, NRCS launched the LCPI “to increase the abundance and distribution of the LPC and its habitat while promoting the overall health of grazing lands and the long-term sustainability of ranching operations.”¹⁹⁴ FWS completed a biological opinion of the LCPI on August 13, 2014, and describes 28 conservation practices that could be implemented through the program that protect and improve LPC habitat.¹⁹⁵

Under the LCPI, a total of 179,805 acres of prescribed grazing were applied through LCPI during 2015. Additionally, a total of 9,438 acres were treated with brush management and range planting was applied to 47 acres during 2015.¹⁹⁶ Many of those acres were previously unusable by LPC and all of the acres were at least in a degraded condition prior to

¹⁹² See <http://www.eenews.net/stories/1059996772> (accessed Jan. 25, 2017).

¹⁹³ 79 Fed. Reg. at 19,980.

¹⁹⁴ 2015 Annual Report at 47.

¹⁹⁵ 2015 Annual Report at 47.

¹⁹⁶ 2015 Annual Report at 47.

treatment. In addition to the applied practices that occurred in 2015, there were another 114,438 newly contracted acres added to the program where practices will be applied in subsequent years.¹⁹⁷

Conservation Reserve Program (“CRP”) - The CRP is a voluntary program for agricultural landowners that incentivizes landowners to take cropland out of production and maintain it in permanent vegetation (*e.g.* native grasses and forbs).¹⁹⁸ CRP enrollment is rather fluid as individual contracts expire at the end of a 10 or 15-year term and new contracts get enrolled in other locations. In the past, periodic new sign-up periods have been successful at enrolling sufficient acreage to replace expirations and as such, the total acres enrolled in the program has remained fairly constant since 1998. Currently, there are nearly 3,229,850 acres enrolled within the range of the LPC.¹⁹⁹ Of those acres, there are 780,439 that lie within the boundaries of CHAT 1 and CHAT 2 which equates to 7.9% of that total area enrolled in the CRP.²⁰⁰

Partners for Fish and Wildlife Program (“PFW”) – The Service’s PFW Program restores, improves and protects fish and wildlife habitat on private lands through partnerships between FWS, landowners and others.²⁰¹ The PFW’s goals are to: (1) restore, enhance and manage private lands for fish and wildlife habitat; (2) significantly improve fish and wildlife habitat while promoting compatibility between agricultural and other land uses; (3) recover declining species and habitats; and, (4) promote stewardship.²⁰²

Typical conservation practices utilized in LPC habitat include invasive species removal, fence marking or removal, native vegetation planting, prescribed fire, prescribed grazing, and brush control.²⁰³ In 2015, the PFW Program was responsible for mechanical removal of eastern red cedar and prescribed grazing on 8,770 acres in the Mixed Grass Ecoregion.²⁰⁴

These are just a few of the conservation programs in place to protect LPCs and LPC habitat. Their collective impact can be seen, but not fully appreciated in the tables that follow. The Trades urge FWS to provide a detailed consideration of this information in making its 12-month finding. This best available information strongly indicates that there is no credible way FWS can conclude that LPCs are likely to be driven to the brink of extinction within the foreseeable future.

¹⁹⁷ 2015 Annual Report at 47.

¹⁹⁸ 2015 Annual Report at 48.

¹⁹⁹ 2015 Annual Report at 48.

²⁰⁰ 2015 Annual Report at 48.

²⁰¹ 2015 Annual Report at 49.

²⁰² 2015 Annual Report at 49.

²⁰³ 2015 Annual Report at 49.

²⁰⁴ 2015 Annual Report at 49.

Table 13. Public land and conservation program acreage within each LPC service area by CHAT category, 2015.

| Service Area – Location | WAFWA Term Contracts | WAFWA Permanent Conservation Agreements ^a | WAFWA Non-Offset Agreements | Conservation Reserve Program | NRCS Lesser prairie-chicken initiative ^b | USFWS Partners for Fish & Wildlife | State Wildlife Agency Private Land Programs ^c | New Mexico Ranching CCA | New Mexico Ranching CCAA | Texas Ranching CCAA ^d | Oklahoma Ranching CCAA ^e | Potential Stronghold Acreage ^f | Other Public Land Acreage ^g | Total ^h |
|-------------------------|----------------------|--|-----------------------------|------------------------------|---|------------------------------------|--|-------------------------|--------------------------|----------------------------------|-------------------------------------|---|--|--------------------|
| Shinnery Oak | | | | | | | | | | | | | | |
| CHAT 1 | 14,088 | 1,057 | 0 | 109,470 | 60,015 | 0 | ND | ND | ND | 48,262 | NA | 360,780 | 53,957 | 647,629 |
| CHAT 2 | 0 | 396 | 0 | 131,336 | 9,008 | 0 | ND | ND | ND | 17,433 | NA | 0 | 91,847 | 250,020 |
| CHAT 3 | 2,001 | 110 | 0 | 674,777 | 21,344 | 0 | ND | ND | ND | 110,937 | NA | 12,348 | 1,565,585 | 2,387,102 |
| CHAT 4 | 16 | 0 | 0 | 200,659 | 2,013 | 0 | ND | ND | ND | 21,751 | NA | 0 | 540,588 | 765,027 |
| <i>Total</i> | | 1,563 | 0 | 1,116,243 | 92,381 | 0 | ND | 886,281 | 1,044,181 | 198,983 | NA | 373,128 | 2,251,978 | 5,964,138 |
| Mixed Grass | | | | | | | | | | | | | | |
| CHAT 1 | 42,165 | 0 | 1,038 | 116,727 | 43,999 | ND | 0 | NA | NA | 241,985 | 146,995 | 28,448 | 46,311 | 667,668 |
| CHAT 2 | 536 | 0 | 0 | 62,772 | 5,366 | ND | 0 | NA | NA | 33,055 | 39,839 | 71 | 18,276 | 159,915 |
| CHAT 3 | 823 | 0 | 966 | 277,883 | 16,115 | ND | 0 | NA | NA | 81,093 | 158,094 | 1,610 | 160,371 | 696,955 |
| CHAT 4 | 17,726 | 0 | 6,908 | 127,096 | 2,420 | ND | 55 | NA | NA | 56,598 | 27,696 | 0 | 31,480 | 269,979 |
| <i>Total</i> | 61,266 | 0 | 8,912 | 584,477 | 67,900 | 8,770 | 55 | NA | NA | 412,731 | 372,624 | 30,129 | 256,438 | 1,803,302 |
| Sand Sagebrush | | | | | | | | | | | | | | |
| CHAT 1 | 12,689 | 0 | 0 | 159,877 | 9,758 | 0 | 4,250 | NA | NA | NA | NA | 33,884 | 166,388 | 386,846 |
| CHAT 2 | 0 | 0 | 0 | 20,758 | 0 | 0 | 0 | NA | NA | NA | NA | 0 | 13,673 | 34,431 |
| CHAT 3 | 0 | 0 | 0 | 346,915 | 136 | 0 | 0 | NA | NA | NA | NA | 4,280 | 190,375 | 541,706 |
| CHAT 4 | 0 | 0 | 0 | 428,559 | 396 | 0 | 40 | NA | NA | NA | NA | 16,152 | 255,026 | 700,173 |
| <i>Total</i> | 12,689 | 0 | 0 | 956,108 | 10,289 | 0 | 4,290 | NA | NA | NA | NA | 54,316 | 625,463 | 1,663,155 |
| Shortgrass | | | | | | | | | | | | | | |
| CHAT 1 | 1,113 | 0 | 0 | 167,931 | 8,082 | 0 | 302 | NA | NA | NA | NA | 8,901 | 18,803 | 205,132 |
| CHAT 2 | 4,029 | 0 | 0 | 11,569 | 0 | 0 | 220 | NA | NA | NA | NA | 0 | 0 | 15,818 |
| CHAT 3 | 0 | 0 | 0 | 160,761 | 975 | 0 | 788 | NA | NA | NA | NA | 0 | 23,430 | 185,954 |
| CHAT 4 | 0 | 0 | 0 | 232,762 | 178 | 0 | 1,469 | NA | NA | NA | NA | 0 | 10,473 | 244,882 |
| <i>Total</i> | 5,142 | 0 | 0 | 573,023 | 9,235 | 0 | 2,779 | NA | NA | NA | NA | 8,901 | 52,707 | 651,787 |
| Range-wide | | | | | | | | | | | | | | |
| CHAT 1 | 70,055 | 1,057 | 1,038 | 554,005 | 121,854 | ND | 4,552 | ND | ND | 290,248 | 146,995 | 432,013 | 285,460 | 1,903,069 |
| CHAT 2 | 4,565 | 396 | 0 | 226,434 | 14,375 | ND | 220 | ND | ND | 50,489 | 39,839 | 71 | 123,797 | 460,186 |
| CHAT 3 | 2,824 | 110 | 966 | 1,460,335 | 38,570 | ND | 788 | ND | ND | 192,029 | 158,094 | 18,238 | 1,939,761 | 3,811,715 |
| CHAT 4 | 17,743 | 0 | 6,908 | 989,076 | 5,006 | ND | 1,564 | ND | ND | 78,348 | 27,696 | 16,152 | 837,568 | 1,980,061 |
| <i>Grand Total</i> | 95,187 | 1,563 | 8,912 | 3,229,850 | 179,805 | 8,770 | 7,124 | 886,281 | 1,044,181 | 611,115 | 372,624 | 466,474 | 3,186,585 | 10,098,471 |

ND = no data provided; NA = not applicable

^a The WAFWA acquired 1,604 acres but the existing perimeter fence does not currently encompass the entire property. The fence will be moved to the correct boundary in the near future so that a WAFWA management plan can be implemented across the entire property.

^b These figures represent the acres of prescribed grazing (528) that were implemented in 2015. This practice is a core conservation practice that is supposed to occur on every contracted LPCI acre. The acreage contained within other NRCS programs was not available for this report but those efforts also provide benefit to the LPC.

^c Data were provided by the Kansas Department of Wildlife, Parks, & Tourism; Oklahoma Department of Wildlife Conservation; and Colorado Parks and Wildlife. The acreages are not unique because they are summed across numerous conservation practices that could have overlapped.

^d An additional 60,511 acres are enrolled outside the CHAT areas because the eligibility area for the program is larger than the CHAT boundary.

^e An additional 21,375 acres are enrolled outside the CHAT areas because the eligibility area for the program is larger than the CHAT boundary.

^f Includes acreages from properties identified as potential strongholds in the WAFWA range-wide plan (Van Pelt et al. 2013).

^g This category includes other protected or publicly owned properties not identified as potential strongholds in the range-wide plan. These acreages are owned by U.S. Department of Defense, Non-Government Organizations, State Land Boards, State Parks, Recreation, and Wildlife Agencies, U.S. Fish & Wildlife Service, U.S. Bureau of Land Management, U.S. Forest Service, Privately Owned Parks, U.S. National Park Service, Agricultural Research Service, U.S. Bureau of Reclamation, and City or County Government.

^h Some of the acreages overlap the same areas and no data were available for some of the listed programs or the EQIP which also provides benefit to LPC.

| Conservation Effort | Description | Enrollment Data |
|--|--|---|
| WAFWA’s Range-wide Plan WCAs | <ul style="list-style-type: none"> • Range-wide plan developed by five States, State agencies, and public and private stakeholders. • Conservation measures: prescribed grazing and burning; fence marking and removal; invasives and shrub control; cropland restoration. 79 Fed. Reg. at 19,993. | 2,550,605.8 acres and \$51 million collected in mitigation and enrollment fees as of December 31, 2015. 2015 LPC Range-Wide Conservation Plan Annual Progress Report, WAFWA, 2015, at 24, 28. |
| WAFWA’s Range-wide Oil and Gas CCAA | <ul style="list-style-type: none"> • Range-wide CCAA to address effects of oil and gas activities • 134 Companies enrolled • Fees are used for conservation measures. 79 Fed. Reg. at 19,993. | 7,876,547.1 acres with various conservation measures in place or required as of December 31, 2015. WAFWA, 2015, at 31, 35. |
| WAFWA Term Contracts | <ul style="list-style-type: none"> • Application process for enrollment in WAFWA conservation programs by contract. | According to WAFWA meeting notes from September 13, 2016, WAFWA Term Contract applications included 197,094 acres and far exceed current needs. |
| WAFWA Permanent Conservation Agreements | <ul style="list-style-type: none"> • Evaluation process for identifying properties suitable for long-term LPC preservation. | Recent acquisitions comprised of approximately 30,000 acres acquired in 2016 for permanent conservation and 1,563 acres of permanent conservation agreements for 2015. WAFWA meeting notes, 2016. |
| WAFWA Non-Offset Agreements | <ul style="list-style-type: none"> • Land acquisitions set aside as suitable LPC habitat. | 8,912 acres enrolled in 2015. WAFWA, 2015, at 54. |
| U.S. FWS Partners for Fish and Wildlife (“PFW”) | <ul style="list-style-type: none"> • Range-wide program | Most recent acreage reported: Kansas: 139,633 ; New Mexico: 70,404 ; |

| Conservation Effort | Description | Enrollment Data |
|---|--|--|
| Program | <ul style="list-style-type: none"> Conservation measures: invasives control; fence marking and removal; native vegetation planting; prescribed burning and grazing. | Oklahoma: 96,258 ; Colorado: 23,000 ; Texas: 131,190 . 79 Fed. Reg. at 19,993–97. 8,770 acres of PFW habitat restoration was reported across parts of LPC range in 2015. WAFWA, 2015, at 54. |
| Natural Resources Conservation Service (“NRCS”) LPC Conservation Initiative (“LPCI”) | <ul style="list-style-type: none"> Range-wide program Conservation measures include brush management, prescribed grazing and burning, range planting, and habitat restoration. | Over \$24.5 million in funding from 2010-2012, with contracts covering over 942,572 acres . 79 Fed. Reg. at 19,989. 179,805 acres of prescribed grazing implemented in 2015. WAFWA, 2015, at 54. |
| State Preserves | <ul style="list-style-type: none"> Preserves within the LPC occupied and potential range offer unfragmented, high-quality LPC habitat. RPI Doc. 1053, at P009180. | <i>E.g.</i> , 14,000 acre Yoakum Dunes Preserve (TX) and 28,000 acre Milnesand Prairie Preserve (NM). Public land acreage in range exceeds 3,186,585 acres in protected or publicly owned properties not identified as potential strongholds and 466,474 acres of potential LPC strongholds. WAFWA, 2016, at 51. |
| Common Ground Capital Programmatic Range-wide Conservation Bank | <ul style="list-style-type: none"> Mitigation program provides for permanent protection and management of lands to offset off-site adverse impacts on private lands. LRI Doc. 39, at L000914. | 90,000 acres under protection and available for mitigation offsets. |

2. The RWP Continues to Protect LPC and LPC Habitat

The RWP represents a cooperative conservation effort by five states, state fish and wildlife agencies, stakeholders, and property owners, with input from the public and FWS. The RWP developed in response to growing concerns about threats to LPC and LPC habitat, and was

intended to preclude the need to list the LPC.²⁰⁵ Under the RWP, private landowners voluntarily enter into formal agreements with FWS to maintain and enhance land within the LPC range.²⁰⁶ The formal agreements include the WAFWA Conservation Agreement (“WCA”) and various CCAA agreements.²⁰⁷ Many of the Trades’ members participate in the WCA and/or Range-wide Oil and Gas Candidate Conservation Agreement with Assurances (CCAA), under which companies voluntarily undertake habitat improvements, operational restrictions, and mitigation requirements in exchange for regulatory certainty in the event that the LPC is listed in the future.²⁰⁸

Regardless of the precise agreement, “[t]he RWP functions by incentivizing industry and landowner participation in the LPC range conservation process.”²⁰⁹ Participants pay an enrollment fee, the funds from which are then used to implement conservation efforts and habitat improvement.²¹⁰ Industry participants are required to take significant steps to avoid development within – or even near – identified LPC habitat.²¹¹ Where impacts are unavoidable, enrollees must pay mitigation fees that increase based on the scale of the potential impact and the quality of the habitat potentially impacted.²¹² The RWP used these mitigation proceeds to pay for habitat improvements, secure long-term and permanent conservation easements, and fund LPC conservation research and the development and deployment of habitat planning tools.²¹³

Importantly, each aspect of the RWP is closely tracked and publicly reported on an annual basis in the RWP Annual Progress Report. The most recent Annual Progress Report was completed in March 2016 and covers calendar year 2015.²¹⁴ This report (as well as subsequently available information) provide objective and measurable data demonstrating that RWP implementation is on pace to accomplish all of its conservation goals and that progress toward these goals continued regardless of the LPC’s listing status.

Landowner/Industry Enrollment – According to WAFWA, “[e]nrollment in the RWP is steady and actually increasing . . .”²¹⁵ Notwithstanding the vacatur of the LPC Listing Decision, in 2015, net enrollment (CCAA and WCA) increased by 464,629 acres.²¹⁶ Additionally, in 2015, the WCA added 14 additional companies and only terminated a single enrollment (totaling 289

²⁰⁵ Western Association of Fish and Wildlife Agencies, The 2015 Lesser Prairie-Chicken Range-Wide Conservation Plan Annual Progress Report (2015 Progress Report), March 2016, at 7, 28.

²⁰⁶ *PBPA v. DOI* at 707.

²⁰⁷ See 2015 Annual Progress Report. Note that data regarding the CCAA cited herein are in addition to the New Mexico Conservation Plan that was developed to provide conservation benefits to both the LPC and the dunes sagebrush lizard. The private landowners, including many of the Trades’ members, enrolled 1,740,000 acres in New Mexico’s ranching Conservation Plan and 875,000 acres in the oil and gas Conservation Plan. The state enrolled 248,000 acres of LPC habitat in the Conservation Plan, and the Bureau of Land Management (“BLM”), acting in conjunction with New Mexico, closed all future oil and gas leasing on 153,257 acres in New Mexican LPC/DSL habitat and ensured that 132,590 acres of unleased federal land in New Mexican LPC/DSL habitat would remain unleased.

²⁰⁸ See 2015 Annual Progress Report.

²⁰⁹ *PBPA v. DOI* at 707.

²¹⁰ 79 Fed. Reg. at 19,979-80.

²¹¹ 79 Fed. Reg. at 19,979-80.

²¹² 79 Fed. Reg. at 19,979-80.

²¹³ 79 Fed. Reg. at 19,979-80.

²¹⁴ See 2015 Annual Progress Report.

²¹⁵ 2015 Progress Report at 21.

²¹⁶ 2015 Progress Report at 21.

acres).²¹⁷ During the same period, the Oil and Gas CCAA enrolled two new companies and suspended 12 companies for nonpayment of enrollment fees.²¹⁸ Five of those suspensions were listed after payment, and the remaining outstanding balance is \$164,680.55 (0.36% of the total amounted WAFWA invoiced for the WCA and CCAA in 2014-2015).²¹⁹

In total (through December 2015), WAFWA reported that it has entered into WCA contracts with 68 companies to preserve more than 2,550,605 acres of LPC habitat.²²⁰ At the same time, 134 oil and gas companies enrolling a total of 7,876,547 acres in the range-wide Oil and Gas CCAA.²²¹ Acreage enrolled in these programs is broadly across each of the LPC's ecoregions.²²²

| CHAT | Mixed Grass Prairie | | Sand Sagebrush Prairie | | Shinnery Oak Prairie | | Shortgrass Prairie | |
|------|--------------------------|------------------|-----------------------------|----------------|---------------------------|----------------|-------------------------|----------------|
| | Industry | Acres | Industry | Acres | Industry | Acres | Industry | Acres |
| 1 | Electric | 44,546 | Electric | 56,047 | Electric | 27,122 | Electric | 24,818 |
| | Oil & Gas | 26,598 | Oil & Gas | 4,029 | Oil & Gas | 329 | Oil & Gas | 1,396 |
| | Pipeline | 10,411 | Pipeline | 16,658 | Pipeline | 871 | Pipeline | 1,725 |
| | Total | 81,554 | Total | 76,734 | Total | 28,322 | Total | 27,939 |
| 2 | Electric | 37,984 | Electric | 5,344 | Electric | 32,435 | Electric | 4,433 |
| | Oil & Gas | 25,005 | Oil & Gas | 63 | Oil & Gas | | Oil & Gas | 383 |
| | Pipeline | 9,012 | Pipeline | 422 | Pipeline | 869 | Pipeline | 270 |
| | Total | 72,001 | Total | 5,829 | Total | 33,305 | Total | 5,086 |
| 3 | Electric | 375,010 | Electric | 40,451 | Electric | 308,619 | Electric | 27,218.9 |
| | Oil & Gas | 264,471 | Oil & Gas | 1,735 | Oil & Gas | 1,427 | Oil & Gas | 1,453.7 |
| | Pipeline | 47,599 | Pipeline | 8,645 | Pipeline | 8,360 | Pipeline | 1,173.6 |
| | Total | 687,080 | Total | 50,831 | Total | 318,406 | Total | 29,846 |
| 4 | Electric | 349,136 | Electric | 165,784 | Electric | 292,168 | Electric | 120,084.8 |
| | Oil & Gas | 117,281 | Oil & Gas | 1,292 | Oil & Gas | | Oil & Gas | 5,468.3 |
| | Pipeline | 52,632 | Pipeline | 17,893 | Pipeline | 5,794 | Pipeline | 6,138.2 |
| | Total | 519,049 | Total | 184,970 | Total | 297,962 | Total | 131,691 |
| | Mixed Grass Total | 1,359,684 | Sand Sagebrush Total | 318,364 | Shinnery Oak Total | 677,995 | Shortgrass Total | 194,563 |

Summary of acres enrolled in the WAFWA Conservation Agreement by ecoregion, CHAT category, and industry type.

²¹⁷ 2015 Progress Report at 24-25.

²¹⁸ 2015 Progress Report at 38.

²¹⁹ 2015 Progress Report at 38.

²²⁰ *Id.* at 24.

²²¹ *Id.* at 34.

²²² 2015 Progress Report at 28.

| CHAT | Mixed Grass Prairie | | Sand Sagebrush Prairie | | Shinnery Oak Prairie | | Shortgrass Prairie | |
|------|--------------------------|------------------|-----------------------------|------------------|---------------------------|----------------|-------------------------|----------------|
| | Industry | Acres | Industry | Acres | Industry | Acres | Industry | Acres |
| 1 | Electric | 0 | Electric | 0 | Electric | 0 | Electric | 0 |
| | Oil & Gas | 702,769 | Oil & Gas | 739,037 | Oil & Gas | 8,678 | Oil & Gas | 65,555 |
| | Pipeline | 70,792 | Pipeline | 39,656 | Pipeline | 12,765 | Pipeline | 4,500 |
| | Total | 773,561 | Total | 778,693 | Total | 21,443 | Total | 70,055 |
| 2 | Electric | 0 | Electric | 0 | Electric | 0 | Electric | 0 |
| | Oil & Gas | 381,331 | Oil & Gas | 34,923 | Oil & Gas | 23,696 | Oil & Gas | 16,621 |
| | Pipeline | 47,524 | Pipeline | 1,071 | Pipeline | 3,050 | Pipeline | 1,070 |
| | Total | 428,855 | Total | 35,994 | Total | 26,746 | Total | 17,691 |
| 3 | Electric | 0 | Electric | 0 | Electric | 0 | Electric | 0 |
| | Oil & Gas | 1,961,601 | Oil & Gas | 328,786 | Oil & Gas | 305,528 | Oil & Gas | 72,302 |
| | Pipeline | 233,543 | Pipeline | 25,047 | Pipeline | 92,838 | Pipeline | 5,936 |
| | Total | 2,195,144 | Total | 353,833 | Total | 398,366 | Total | 78,238 |
| 4 | Electric | 0 | Electric | 0 | Electric | 0 | Electric | 0 |
| | Oil & Gas | 664,247 | Oil & Gas | 1,248,439 | Oil & Gas | 305,052 | Oil & Gas | 174,533 |
| | Pipeline | 137,379 | Pipeline | 78,150 | Pipeline | 63,675 | Pipeline | 26,453 |
| | Total | 801,626 | Total | 1,326,589 | Total | 368,727 | Total | 200,987 |
| | Mixed Grass Total | 4,199,186 | Sand Sagebrush Total | 2,495,109 | Shinnery Oak Total | 815,281 | Shortgrass Total | 366,970 |

Summary of acres enrolled in the Range-wide Oil and Gas Candidate Conservation Agreement by ecoregion, CHAT category, and industry type.

Mitigation Fees – “WAFWA collected \$11,843,403 in fees in 2015, bringing the program total to \$50,800,884, which will offset unavoidable impacts at off-site mitigation locations.”²²³ In 2015, 409 project agreements were authorized, assessing development costs tied to the quality of habitat being impacted. After two years of implementation, a review of all the projects assessed shows that the mean cost varies by ecoregion with an average cost of \$11,936 per project. The vast majority of the mitigation fees, however, have been relatively low, with 39% of all projects incurring fees of less than \$1,000.²²⁴ The prevalence of these lower-tier mitigation fees indicates that companies are avoiding high-quality (and high-mitigation-cost) LPC habitat while also minimizing the size of their impact area.²²⁵

Habitat Improvements - Substantial conservation progress continues to be made on private land across the LPC’s range. In 2015 alone, eight landowner contracts were finalized, encompassing 67,512 acres.²²⁶ Conservation measures are being implemented range-wide, including habitat restoration on 8,214 of 15,911 prescribed acres.²²⁷ A total of \$1,821,737 was paid to landowners managing their lands to generate credits for lesser prairie-chicken

²²³http://www.wafwa.org/initiatives/grasslands/lesser_prairie_chicken/news_releases/e_1838/Lesser_Prairie_Chicken_News_Releases/2016/3/Lesser_Prairie-Chicken_Range-wide_Plan_Reports_on_Successful_Second_Year.htm (accessed Jan. 13, 2017).

²²⁴ 2015 Progress Report at 67.

²²⁵ *Id.*

²²⁶ 2015 Progress Report at 45.

²²⁷ 2015 Progress Report at 45.

conservation.²²⁸ At the conclusion of 2015, WAFWA had 105,662 acres in the LPC range under some type of conservation agreement.²²⁹

Permanent Conservation – In 2015, WAFWA acquired title to a 1,604-acre tract of Texas native rangeland in June 2015, near the Yoakum Dunes Wildlife Management Area in West Texas.²³⁰ Subsequently in June 2016, finalized the purchase of approximately 30,000 acres of high-quality lesser prairie-chicken habitat in southwest Kansas.²³¹ The Sunview Ranch (formerly Tate Ranch) is in the sand sagebrush ecoregion, which covers portions of Kansas, Colorado and Oklahoma and once contained the highest density of lesser prairie-chickens in the country.²³² The dominant vegetation on rangelands in the region is sand sagebrush which is a native shrub typically associated with deep sandy soils in dune landscapes. Livestock grazing is the primary land use on rangeland throughout the sand sagebrush region, and through grazing leases, will continue to be used as a management tool on the Sunview Ranch. “This property is one of the largest remaining contiguous tracts of sand sagebrush prairie in the region. Conserving this property in perpetuity ensures that it will remain a working ranch and continue to provide habitat for the lesser prairie-chicken in the portion of its range where the population has declined the most. Prescribed grazing is the core management practice for lesser prairie-chickens, and we will be implementing it on the ranch to conserve and enhance habitat for the species.”²³³

Even more recently, WAFWA finalized permanent conservation agreements with a private landowner to conserve 1,781 acres of high-quality lesser prairie-chicken habitat in south-central Kansas.²³⁴ This is the first permanent conservation easement in the mixed-grass prairie ecoregion.²³⁵

In sum, the WAFWA Annual Progress Report provides objective and measurable documentation that the RWP is being implemented effectively, is progressing toward its of its stated conservation goals, and that removing the threat of listing in 2015 did not reduce the likelihood that the RWP would continue to be implemented and effective in protecting LPCs and LPC habitat. The best information available unequivocally shows that enrollment increased in 2015. LPC populations have stabilized and growing in key areas; habitat is expanding, better protected, and actively being improved; and connectivity is increasing and contributing to the resiliency of the species. On these facts alone, FWS must conclude that list the LPC is not warranted.

3. Voluntary Conservation Efforts are More Effective than Listing

²²⁸ 2015 Progress Report at 45.

²²⁹ 2015 Progress Report at 47.

²³⁰ 2015 Progress Report at 45.

²³¹ http://www.wafwa.org/initiatives/grasslands/lesser_prairie_chicken/news_releases/e_1912/Lesser_Prairie_Chicken_News_Releases/2016/6/WAFWA_Land_Acquisition_Permanently_Protects_Lesser_Prairie-Chicken_Habitat_in_Kansas.htm (accessed Jan. 13, 2017).

²³² *Id.*

²³³ *Id.*

²³⁴ http://www.hpi.com/livestock_general/wafwa-conserves-lesser-prairie-chicken-habitat/article_4466d056-7b4b-51d7-a3f6-53c8d483ac7b.html (accessed Jan. 13, 2017).

²³⁵ *Id.*

As FWS itself has noted, “[t]he development and implementation of [conservation agreements, conservation plans, and management plans] has been an effective mechanism for conserving declining species and has, in some instances, made listing unnecessary.”²³⁶

In contrast, the mere act of listing a species is not effective. As of January 6, 2017, a total of 2,391 species were listed under the ESA,²³⁷ and only 76 have been delisted.²³⁸ Of those 76 species, roughly half (47) were delisted based on recovery.²³⁹ In most cases, the recovery was attributed to factors other than listing.²⁴⁰ For instance, the bald eagle and California condor recovered after the Environmental Protection Agency banned the use of a common insecticide (DDT) that caused eggshell thinning.²⁴¹ Even attributing each of 47 recovered species to the ESA, however, those delistings represent a recovery rate of 1.9%.

Researchers attribute the ESA’s 1.9% recovery rate to two fundamental impediments: (1) inadequate resources to plan and implement recovery programs; and (2) the impracticality of using listed species to control action on private land—and often the disadvantageous responses from landowners fearful of being deprived of the use of their land. According to a 2007 study, listing a species without allocating the species significant funding for recovery can actually be injurious to species on private land.²⁴² The study hypothesized that the ESA’s “take” prohibitions can only be effective when matched with a credible threat of enforcement—which is very difficult on private land.²⁴³ Listing may also incentivize landowners to make their property less suitable as habitat for listed species.²⁴⁴ Additionally, several studies found that the designation of critical habitat confers no conservation benefit on listed species.²⁴⁵ Notably, the Department of the Interior reached the same conclusion.²⁴⁶ Another study identified a modest conservation benefit from the ESA’s consultation requirements, but deemed it “the best among the weak predictors of recovery.”²⁴⁷ Again, consultation only positively impacts listed species present on federal land or nonfederal

²³⁶ *Id.* at 15,112.

²³⁷ *Summary of Listed Species Listed Populations and Recovery Plans*, U.S. FISH & WILDLIFE SERVICE (June 1, 2016 11:05 AM), http://ecos.fws.gov/tess_public/reports/box-score-report [hereinafter *Summary of Listed Species*].

²³⁸ *Delisting Report*, U.S. FISH & WILDLIFE SERVICE, https://ecos.fws.gov/tess_public/reports/delisting-report (accessed June 1, 2016).

²³⁹ *Id.* 29 were delisted because of extinction or taxonomic misclassification. See *Delisting Report*, *supra* note 26.

²⁴⁰ See Jonathan Adler, *The Leaky Ark*, AMERICAN ENTERPRISE INSTITUTE (Oct. 5, 2011), <https://www.aei.org/publication/the-leaky-ark/>.

²⁴¹ See *DDT and Other Organochlorine Insecticides*, U.S. FISH & WILDLIFE SERVICE, <http://www.fws.gov/contaminants/info/ddt.html> (accessed Dec. 18, 2015).

²⁴² Paul J. Ferraro, Craig McIntosh, & Monica Ospina, *The Effectiveness of the U.S. Endangered Species Act: An Econometric Analysis Using Matching Methods*, 54 J. ENVTL. ECON. & MGMT. 245, 246 (2007).

²⁴³ Ferraro, *supra* note 33, at 256.

²⁴⁴ See *id.* at 246 (internal citations omitted).

²⁴⁵ See, e.g., Timothy D. Male & Michael J. Bean, *Measuring Progress in US Endangered Species Conservation*, 8 ECOLOGY LETTERS 986, 988 (2005); J. Alan Clark et al., *Improving U.S. Endangered Species Act Recovery Plans: Key Findings and Recommendations of the SCB Recovery Plan Project*, 16 CONSERVATION BIOLOGY 1510, 1515 (Dec. 2002).

²⁴⁶ News Release, U.S. Department of the Interior, Endangered Species Act “Broken” – Flood of Litigation Over Critical Habitat Hinders Species Conservation (May 28, 2003), available at https://www.doi.gov/sites/doi.gov/files/archive/news/archive/03_News_Releases/030528a.htm (“Designating critical habitat for species already on the endangered species list provides little conservation benefit to species”).

²⁴⁷ See Katherine E. Gibbs and David J. Currie, *Protecting Endangered Species: Do the Main Legislative Tools Work?*, PLOS ONE (May 2, 2012), available at <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0035730>.

land involved in federal activity—not the majority of listed species on private land,²⁴⁸ including the LPC, 95% of the habitat of which is situated on private land.²⁴⁹

In the few instances where benefits from listing were identified, they accrued only on public land and only when listing was accompanied by funding for conservation. Yet, even when FWS allocates significant funds pursuant to the listing, “ESA-related spending is more effective in preventing deterioration than in promoting improvement in recovery status.”²⁵⁰ “[I]ncreased funding reduced the probability that FWS will classify a species as extinct or declining,” but “evidence does not support the hypothesis that increased spending leads to increases in the probability that a species is stable or improving.”²⁵¹

This absence of funding not only forestalls any conservation gain from listing, “there is anecdotal, theoretical, and empirical evidence that the Act encourages landowners to preemptively harm species and their habitat.”²⁵² “Whatever successes the ESA has had in other contexts . . . the regulatory model has failed on private land. As *Science* reported in 2005, ‘it’s become clear over three decades that its regulatory hammer isn’t enough.’”²⁵³

In all respects, but nowhere more than on private land, voluntary conservation is effective—listing is not. When landowners fear (rationally or not) the prospect that a listing will constrain use of their land, they may prohibit access for surveys or studies that could inform an effective recovery strategy. Even if FWS can craft a recovery plan for a listed species—something FWS has not done for nearly 50% of listed species—it frequently must do so without the benefit of important biological data available only through surveys on private land and from landowner knowledge. When FWS lists species on private land without providing any funding for recovery, FWS may actually contribute to the decline of the species.

For the increasingly few listed species for which FWS able to craft recovery plans for a listed, it is rarely able to do so in a timely manner. As FWS noted in 2014, after examining the multitude of conservation efforts that were put in place to protect the LPC and its habitat:

Collectively, these various efforts are quite similar to a recovery plan, something that the Service normally prepared years after a species’ listing. This early identification of a strategy to recover the lesser prairie-chicken is likely to speed its eventual delisting.²⁵⁴

²⁴⁸ See Adler, *supra* note 28; see also U.S. GOV’T ACCOUNTABILITY OFFICE, GAO/RCED-95-16, ENDANGERED SPECIES ACT: INFORMATION ON SPECIES PROTECTION ON NONFEDERAL LANDS (1994).

²⁴⁹ 79 Fed. Reg. at 20,009.

²⁵⁰ Joe Kerkvliet & Christian Langpap, *Learning from Endangered and Threatened Species Recovery Programs: A Case Study Using U.S. Endangered Species Act Recovery Scores*, 63 ECOLOGICAL ECON. 499, 506 (2007).

²⁵¹ *Id.* at 508.

²⁵² *Id.* at 246 (internal citations omitted); see, e.g., Robert Innes, *Takings, Compensation, and Equal Treatment for Owners of Developed and Undeveloped Property*, 40 J. LAW ECON. 403 (1997); Dean Lueck & Jeffrey A. Michael, *Preemptive Habitat Destruction under the Endangered Species Act*, 46 J. LAW ECON. 27 (2003); D. Hollingsworth, *Why the US Regulatory Endangered Species Model is a Disaster for Small Property Owners and Hurts Species: Analysis and Case Studies*, Presented at The Frasier Institute Conference, *Protecting Endangered Species: Alternatives to Legislation* (1998).

²⁵³ See Adler, *supra* note 28 (citing Erik Stokstad, *What’s Wrong with the Endangered Species Act*, 30 SCIENCE 2150, 2152 (2005)).

²⁵⁴ Questions & Answers: Final Listing Determination and Special Rule for the Lesser Prairie-Chicken. http://www.fws.gov/southwest/es/documents/R2ES/LPC_FL_FAQs_FINAL_20140327.pdf (accessed Jan. 6, 2017)

While the Trades disagree with the Service's suggestion that the LPC should have been listed, we applaud the Services' recognition that the voluntary conservation efforts for the LPC were able to protect the species better than the now-vacated listing. Indeed, voluntary conservation succeeds where listing fails because it can supply the funding and resources that FWS cannot provide and because it incentivizes landowners to protect and improve habitat on private land. Voluntary efforts engage landowners in a way listing will not. Landowners are partners in the development of the conservation plans. Unlike listing, these programs encourage habitat improvements, and provide landowners assurance against potentially more heavy-handed restrictions in the future.²⁵⁵ Because landowners are provided assurances against more prohibitive restrictions, they are more willing to provide the access, insight, and superior data that make conservation plans more effective.

The resources that can be generated through states and the private sector far exceed any funding FWS could realistically provide. As discussed further in the subsection below, in just one of the many voluntary LPC conservation efforts undertaken by the Trades' members, the oil and gas industry agreed to voluntarily conserve and improve over 9 million acres enrolled in conservation plans for the protection and recovery of the species.²⁵⁶ In addition to this historic level of enrollment, the oil and gas industry committed the majority of the \$50 million in funds landowners contributed to improve and restore lesser prairie-chicken habitat.²⁵⁷ For comparison, in 2014 FWS spent about \$38 million to protect 99 different bird species.²⁵⁸

VI. CONCLUSION

Based on the foregoing, the Trades strongly urge FWS to issue a 12-Month finding that listing LPCs is not warranted. LPCs do not meet the ESA's definitions for threatened or endangered species because their populations are stable (if not growing) and protected by a historic level of conservation actions. The best scientific information available demonstrates that there are no threats or other factors likely to drive LPCs to the brink of extinction within the foreseeable future.

The Trades further urge FWS to more explicitly state its basis for rejecting Petitioners' DPS analysis and to structure its status review so that the Service can base its decision on the best and most recent scientific information available, including the most recent survey and conservation data.

The Trades appreciate the opportunity to provide these comments. If you have any questions or would like to discuss these comments, please feel free to contact any of the signatories below.

²⁵⁵ See U.S. FISH & WILDLIFE SERVICE, DRAFT CANDIDATE CONSERVATION AGREEMENTS WITH ASSURANCES HANDBOOK (June 2003), available at <https://www.fws.gov/endangered/esa-library/pdf/handbooktext.pdf>.

²⁵⁶ News Release, Western Association of Fish & Wildlife Agencies, Unprecedented Effort Protects Prairie Chicken Habitat in Five States (June 3, 2014), available at <http://www.wafwa.org/Documents%20and%20Settings/37/Site%20Documents/News/LPC-NewsRelease-6.3.2014.pdf>.

²⁵⁷ WAFWA Encourages Oil & Gas Company Participation in Lesser Prairie-Chicken Conservation Plan, WESTERN ASSOCIATION OF FISH & WILDLIFE AGENCIES (Nov. 11, 2015 9:52 AM), [http://www.wafwa.org/news/e_1692/News/2015/11/WAFWA Encourages Oil Gas Company Participation in Lesser Prairie-Chicken Conservation Plan.htm](http://www.wafwa.org/news/e_1692/News/2015/11/WAFWA%20Encourages%20Oil%20Gas%20Company%20Participation%20in%20Lesser%20Prairie-Chicken%20Conservation%20Plan.htm).

²⁵⁸ ESA EXPENDITURES FY2014, *supra* note 62, at tbl. 1.

Very truly yours,



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