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13 **UNITED STATES DISTRICT COURT**
14 **NORTHERN DISTRICT OF CALIFORNIA**

15 DESERT SURVIVORS; CENTER FOR
16 BIOLOGICAL DIVERSITY; WILDEARTH
GUARDIANS; and WESTERN
WATERSHEDS PROJECT,

17 Plaintiffs,

18 v.

19 UNITED STATES DEPARTMENT OF THE
20 INTERIOR; and UNITED STATES FISH
21 AND WILDLIFE SERVICE,

22 Defendants.

Case No. 3:20-cv-6787

**COMPLAINT FOR DECLARATORY
JUDGMENT AND INJUNCTIVE RELIEF**

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INTRODUCTION

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2 1. The Bi-State Sage-Grouse is a small, isolated, and genetically distinct
3 subpopulation of greater sage-grouse that lives in sagebrush-steppe and meadow habitat straddling
4 the border between California and Nevada. These iconic birds, well known for their distinctive
5 mating ritual, have lost over half of their historic population and range due to urbanization,
6 wildfires, livestock grazing, predation, infrastructure, human disturbance, and habitat
7 encroachment by invasive species like non-native conifers, among other factors.

8 2. In 2013, after many years of vigorous advocacy, administrative resistance, lawsuits,
9 settlements, and further analysis, the U.S. Fish and Wildlife Service (“Service”) finally proposed
10 listing the Bi-State Sage-Grouse as “threatened” under the Endangered Species Act. In addition to
11 designating 1.86 million acres of critical habitat, that action would have strengthened
12 intergovernmental consultation requirements and collaboration efforts, initiated a rigorous long-
13 term recovery plan, and opened up a citizen-suit enforcement provision for protecting the Bi-State
14 Sage-Grouse.

15 3. In 2015, however, the Service withdrew its proposal. The Service concluded, in
16 part, that various prospective conservation efforts were sufficient to guard against the Bi-State
17 Sage-Grouse’s continuing decline. Plaintiffs in this action sued, alleging that the Service had
18 violated the Endangered Species Act and the Administrative Procedure Act when it withdrew its
19 proposal to list the Bi-State Sage-Grouse. *Desert Survivors et al. v. U.S. Department of the*
20 *Interior, et al.*, Case No. 3:16-cv-1165-JCS (N.D. Cal.). This Court agreed, holding, among other
21 things, that the Service relied too heavily on new population modeling, failed to adequately
22 describe the effects of the conservation efforts, and interpreted the statutory term “significant”
23 impermissibly. *Desert Survivors v. U.S. Dep’t of the Interior*, 321 F. Supp. 3d 1011, 1074 (N.D.
24 Cal. 2018). The Court vacated the 2015 Listing Withdrawal, reinstated the 2013 Proposed Listing
25 Rule, ordered a new public comment period, and vacated the definition of “significant” in the
26 Service’s Significant Portion of Its Range Policy. *Desert Survivors v. U.S. Dep’t of the Interior*,
27 336 F. Supp. 3d 1131, 1137 (N.D. Cal. 2018).

PARTIES

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8. Plaintiff CENTER FOR BIOLOGICAL DIVERSITY (“Center”) is a California nonprofit 501(c)(3) corporation headquartered in Tucson, Arizona, with offices throughout the country, including in California and Nevada. The Center is dedicated to the preservation, protection, and restoration of biodiversity, native species, and ecosystems. The Center works through science, law, and policy to secure a future for all species, great or small, hovering on the brink of extinction. The Center has more than 80,000 members, including many who reside in, explore, and enjoy the native species and ecosystems of California and Nevada where the Bi-State Sage-Grouse Distinct Population Segment is located.

9. The Center brings this action on its own institutional behalf and on behalf of its members, many of whom regularly enjoy and will continue to enjoy educational, recreational, and scientific activities regarding the Bi-State Sage-Grouse. The interests of the Center and its members in observing, studying, and otherwise enjoying the Bi-State Sage-Grouse have been harmed by defendants’ actions.

10. Plaintiff DESERT SURVIVORS is a nonprofit corporation based in Oakland, California. Desert Survivors is a conservation organization with more than 400 members, primarily in California and Nevada, that is focused on the protection of desert plants, wildlife, and ecosystems. Desert Survivors also engages in a vigorous program of public education about desert lands and their unique character. Desert Survivors’ primary goals are to protect fragile desert lands and to teach visitors to those lands about their value. Desert Survivors leads educational trips to desert lands. Desert Survivors has led more than 400 such trips to the desert including many to areas inhabited by the Bi-State Sage-Grouse, including in and near Mono Lake, the Bodie Hills, and the White Mountains.

11. Desert Survivors brings this action on its own institutional behalf and on behalf of its members, many of whom regularly enjoy and will continue to enjoy educational, recreational, and scientific activities regarding the Bi-State Sage-Grouse. The interests of Desert Survivors and

1 its members in observing, studying, and otherwise enjoying the Bi-State Sage-Grouse have been
2 harmed by defendants' actions.

3 12. Plaintiff WESTERN WATERSHEDS PROJECT ("WWP") is an Idaho-based
4 conservation organization that was founded in 1993 with the mission of protecting and restoring
5 western watersheds and wildlife on public lands through education, research, public policy
6 initiatives, and litigation. Headquartered in Hailey, Idaho, WWP has over 12,000 members and
7 supporters, and it has field offices in California and Nevada that have been actively involved in
8 sage-grouse matters. Since its formation, WWP has actively advocated for statutory and regulatory
9 protection of sagebrush-obligate species, including the Bi-State Sage-Grouse.

10 13. WWP brings this action on its own institutional behalf and on behalf of its
11 members, many of whom regularly enjoy and will continue to enjoy educational, recreational, and
12 scientific activities regarding the Bi-State Sage-Grouse. The interests of WWP and its members in
13 observing, studying, and otherwise enjoying the Bi-State Sage-Grouse have been harmed by
14 defendants' actions.

15 14. Plaintiff WILDEARTH GUARDIANS ("Guardians") is a West-wide non-profit
16 conservation organization with over 130,000 members and activists dedicated to protecting the
17 wildlife, wild places, wild rivers, and the health of the American West. Guardians has a
18 longstanding interest in protecting and restoring the Bi-State Sage-Grouse and its habitat in
19 California and Nevada. Guardians brings this action on its own institutional behalf and on behalf
20 of its members, many of whom regularly enjoy and will continue to enjoy educational,
21 recreational, and scientific activities regarding the Bi-State Sage-Grouse. The interests of
22 Guardians and its members in observing, studying, and otherwise enjoying the Bi-State Sage-
23 Grouse have been harmed by defendants' actions.

24 15. Defendant UNITED STATES DEPARTMENT OF THE INTERIOR ("Interior") is
25 ultimately responsible for the administration and implementation of the ESA with regard to
26 terrestrial endangered and threatened species and for compliance with all other federal laws
27 applicable to the Interior.

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1 21. The Service must make listing determinations “solely on the basis of the best
2 scientific and commercial data available.” 16 U.S.C. § 1533(b)(1)(A).

3 **B. Policy for the Evaluation of Conservation Efforts**

4 22. The ESA requires that the Service make listing decisions “after taking into account
5 those efforts, if any, being made by any State or foreign nation, or any political subdivision of a
6 State or foreign nation, to protect such species.” 16 U.S.C. § 1533(b)(1)(A).

7 23. In 2003, the Service and the National Marine Fisheries Service published a final
8 policy establishing criteria for “determining whether a formalized conservation effort contributes
9 to forming a basis for not listing a species, or for listing a species as threatened rather than
10 endangered.” Policy for Evaluation of Conservation Efforts When Making Listing Decisions, 68
11 Fed. Reg. 15,100, 15,114 (Mar. 28, 2003) (“PECE”).

12 24. Under the PECE, “[t]o consider that a formalized conservation effort(s) contributes
13 to forming a basis for not listing a species or listing a species as threatened rather than endangered,
14 we must find that the conservation effort is sufficiently certain to be implemented and effective so
15 as to have contributed to the elimination or adequate reduction of one or more threats to the
16 species identified through the [16 U.S.C. § 1533(a)(1)] analysis.” 68 Fed. Reg. at 15,115. The
17 PECE provides nine criteria for evaluating whether a conservation effort is certain to be
18 implemented and six for evaluating whether it is certain to be effective. 68 Fed. Reg. at 15,114-15.

19 25. The six certainty-of-effectiveness criteria are (1) “[t]he nature and extent of threats
20 being addressed by the conservation effort are described, and how the conservation effort reduces
21 the threats is described;” (2) “[e]xplicit incremental objectives for the conservation effort and
22 dates for achieving them are stated;” (3) “[t]he steps necessary to implement the conservation
23 effort are identified in detail;” (4) “[q]uantifiable, scientifically valid parameters that will
24 demonstrate achievement of objectives, and standards for these parameters by which progress will
25 be measured, are identified;” (5) “[p]rovisions for monitoring and reporting progress on
26 implementation (based on compliance with the implementation schedule) and effectiveness (based
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1 on evaluation of quantifiable parameters) of the conservation effort are provided;” (6) “[p]rinciples
2 of adaptive management are incorporated.” 68 Fed. Reg. at 15,115.

3 26. The PECE also provides that, “[r]egardless of the adoption of a conservation
4 agreement or plan, . . . if the best available scientific and commercial data indicate that the species
5 meets the definition of ‘endangered species’ or ‘threatened species’ on the day of the listing
6 decision, then we must proceed with appropriate rule-making activity under [16 U.S.C. § 1533].”
7 68 Fed. Reg. at 15,115.

8 **C. Significant Portion of Its Range Policy**

9 27. Under the ESA, the Service must list a species or a DPS if it is endangered or
10 threatened “throughout all or a significant portion of its range.” 16 U.S.C. § 1532(6) (defining
11 “endangered species”); *id.* § 1532(20) (defining “threatened species”); *id.* § 1533(a)-(b)
12 (describing the listing process). A species or a DPS is “endangered” if it is “in danger of
13 extinction.” *Id.* § 1532(6). A species or a DPS is “threatened” if it is “likely to become an
14 endangered species within the foreseeable future.” *Id.* § 1532(20).

15 28. In 2014, the Service and the National Marine Fisheries Service published a final
16 policy interpreting the statutory phrase “significant portion of its range.” Final Policy on
17 Interpretation of the Phrase “Significant Portion of Its Range” in the Endangered Species Act’s
18 Definitions of “Endangered Species” and “Threatened Species.” 79 Fed. Reg. 37,578 (July 1,
19 2014) (“SPR Policy”).

20 29. Under the SPR Policy, “[i]f a species is found to be endangered or threatened
21 throughout only a significant portion of its range, the entire species is listed as endangered or
22 threatened, respectively, and the [ESA’s] protections apply to all individuals of the species
23 wherever found.” 79 Fed. Reg. at 37,609.

24 30. Under the SPR Policy as originally promulgated, “[a] portion of the range of a
25 species is ‘significant’ if the species is not currently endangered or threatened throughout its range,
26 but the portion’s contribution to the viability of the species is so important that, without the
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1 members in that portion, the species would be in danger of extinction, or likely to become so in
2 the foreseeable future, throughout all of its range.” 79 Fed. Reg. at 37,609.

3 31. In 2017, the Service issued additional guidance for applying the SPR Policy in
4 listing determinations. *See* Memorandum from the Dir., U.S. Fish & Wildlife Service, to Regional
5 Dirs., U.S. Fish & Wildlife Service, Doc. FWS/AES/DCC/063503 (Jan. 19, 2017) (“SPR Letter”).
6 Using the definition of “significant” contained in the SPR Policy, the SPR Letter provides a
7 stepwise analytical process for determining whether a portion of a range is “significant.” *Id.*

8 32. In 2018, this Court held that the SPR Policy’s definition of “significant” was an
9 “impermissible interpretation” of the ESA’s statutory language. *Desert Survivors v. U.S. Dep’t of*
10 *the Interior*, 321 F. Supp. 3d 1011, 1074 (N.D. Cal. 2018). The Court agreed with the plaintiffs’
11 argument that “the SPR Policy’s definition of ‘significant’ results in a threshold under the
12 ‘significant portion of its range’ definition that is functionally equivalent to the threshold under the
13 ‘throughout all’ definition.” *Id.* at 1070-71. In a subsequent order, the Court vacated the SPR
14 Policy’s definition of “significant” nationwide. *See Desert Survivors v. U.S. Dep’t of the Interior*,
15 336 F. Supp. 3d 1131, 1133, 1137 (N.D. Cal. 2018).

16 33. Between the time of the 2018 *Desert Survivors* decisions and the 2020 Listing
17 Withdrawal, the Service did not issue a new final policy or opinion letter filling in the gap created
18 by the vacatur of the SPR Policy’s definition of “significant.” As a result, the Service did not adopt
19 a new definition of “significant” before undertaking its SPR analysis in the 2020 Listing
20 Withdrawal.

21 **D. The Administrative Procedure Act**

22 34. The APA entitles “adversely affected or aggrieved” persons, 5 U.S.C. § 702, to
23 judicial review of “final agency action,” *id.* § 704.

24 35. The APA compels a court to “hold unlawful and set aside agency action, findings,
25 and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in
26 accordance with law.” 5 U.S.C. § 706(2)(A).

FACTUAL BACKGROUND**A. The Bi-State Sage-Grouse’s Shrinking Habitat and Population**

36. The greater sage-grouse is a large, ground-dwelling bird scattered throughout the Intermountain West. It is well known for its elaborate courtship ritual, which takes place in the springtime on mating sites known as leks. The males puff up their chests, unfurl their plumage, and emit a distinct popping sound. The females watch the performance and select a companion. The sage-grouse then move through a series of seasonal habitats, which consist of and require large, interconnected expanses of sagebrush-steppe and meadow habitat.

37. As a result of various factors, including livestock grazing, mining, development, and wildfires, sagebrush ecosystems have shrunk drastically from their historic range. In the past 30 to 40 years alone, greater sage-grouse populations have declined by 33 percent across their range. Sage-grouse are considered to be a “surrogate” species: Conserving them confers a protective “umbrella” over numerous plant and other animal species that also depend on the sagebrush ecosystem.

38. The Bi-State Distinct Population Segment of Greater Sage-Grouse (“Bi-State Sage-Grouse”) is a small, isolated, and genetically distinct subpopulation of the greater sage-grouse. The Bi-State Sage-Grouse live at the far southwestern reaches of the greater sage-grouse’s range, straddling the border between California and Nevada. They exhibit similar life stages and possess the same habitat needs as the rest of the species. *See* U.S. Fish & Wildlife Service, Species Report: Bi-State Distinct Population Segment of Greater Sage-Grouse at 8-9 (Jan. 17, 2020) (“2020 Species Report”). And like the greater sage-grouse, the Bi-State Sage-Grouse remains critically threatened by livestock grazing, mining, development, wildfires, recreation, and other forces, which deteriorate its habitat and disturb its nesting sites. *Id.* at 39-136.

39. The Bi-State Sage-Grouse’s population and range have each been cut at least in half during the last 150 years. *See* 2020 Species Report at 18. The Service now estimates that the current population consists of just 3,305 birds. *Id.* at 119-20.

1 40. The Service classifies the Bi-State Sage-Grouse into six population management
2 units (“PMUs”): Pine Nut, Desert Creek–Fales, Mount Grant, Bodie Hills, South Mono, and White
3 Mountains. *See Id.* at 18-21. Connectivity between these PMUs has continued to deteriorate. *Id.* at
4 5. And the Service concedes that four of the six PMUs are “especially small and increasingly
5 isolated.” *Id.*

6 **B. The Service’s 2013 Proposed Listing Rule**

7 41. In 2001 and 2005, two sets of environmental groups petitioned the Service to list
8 the Bi-State Sage-Grouse (previously known as the “Mono Basin” population) under the ESA.
9 *Desert Survivors*, 321 F. Supp. 3d at 1025. The Service rejected each of those petitions. *Id.* In
10 response, the 2001 petitioners filed suit, and the 2005 petitioners sent a sixty-day notice of intent
11 to sue under the ESA. *Id.* The Service settled both matters in 2006, in part by agreeing to issue
12 new findings. *Id.* The Service issued new findings later in 2006, once again declining to list the
13 Bi-State Sage-Grouse under the ESA. *Id.* In response, the Service was sued once again, it signed
14 yet another settlement agreement, and it committed yet again to issuing new findings. *Id.* at 1025-
15 26. In 2010, the Service announced that listing the Bi-State Sage-Grouse was warranted but
16 precluded by higher priority actions. *Id.* at 1026. In 2011, the Service entered into a settlement
17 agreement in a consolidated case in the District of Columbia, agreeing to issue proposed listing
18 rules or not-warranted findings for numerous species, including the Bi-State Sage-Grouse. *Id.*

19 42. In 2013, the Service issued a proposed rule to list the Bi-State Sage-Grouse as
20 threatened and to designate critical habitat for the population segment. 78 Fed. Reg. 64,358 (“2013
21 Proposed Listing Rule”). This determination rested on numerous findings. The Service concluded
22 that the populations of the Bi-State Sage-Grouse and each of the PMUs had fallen “below
23 theoretical minimum criteria for long-term persistence.” *Id.* at 64,362. That population loss
24 dovetailed with severe habitat fragmentation, which left the Bi-State Sage-Grouse’s
25 subpopulations poorly connected and more vulnerable to a variety of threats. The Service found
26 that “the Bi-State [Sage-Grouse] is likely to become endangered within the foreseeable future
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1 throughout all or a portion of its range” based on numerous synergistic threats, including
2 infrastructure, livestock grazing, wildfires, and nonnative and invasive plants. *Id.* at 64,374-75.

3 **C. The Service’s 2015 Listing Withdrawal**

4 43. In 2015, despite its findings of disastrous decline, and all the same conditions
5 justifying its earlier listing proposal remaining in place, the Service withdrew the 2013 Proposed
6 Listing Rule. *See* 80 Fed. Reg. 22,828 (Apr. 23, 2015) (“2015 Listing Withdrawal”). In doing so,
7 the Service relied heavily on the promise of conservation measures described in the 2012 Bi-State
8 Action Plan (“BSAP”), *id.* at 22,849, which had already existed and was fully considered when the
9 Service issued the 2013 Proposed Listing Rule, *see, e.g.*, 78 Fed. Reg. at 68,359. In its 2015
10 Listing Withdrawal, the Service also cited new modeling results that it interpreted to mean the Bi-
11 State Sage-Grouse population was stable. *See, e.g.*, 80 Fed. Reg. at 22,853.

12 44. In 2016, the Conservation Groups filed suit against the Service in the Northern
13 District of California, alleging that the 2015 Listing Withdrawal violated the ESA. *See* Complaint
14 for Declaratory and Injunctive Relief, *Desert Survivors*, 321 F. Supp. 3d 1011 (N.D. Cal. 2018)
15 (No. 3:16-cv-01165-JCS).

16 45. In 2018, the Court agreed with the Conservation Groups and granted summary
17 judgment in their favor. *Desert Survivors*, 321 F. Supp. 3d at 1076. The Court held, among other
18 things, that the Service’s reliance on the new population modeling contradicted its own admission
19 that the results had to be interpreted “with caution,” *id.* at 1045; that the Service’s PECE analysis
20 failed to provide sufficient details about the effects of conservation efforts, like pinyon-juniper and
21 cheatgrass removal, on Bi-State Sage-Grouse, *id.* at 1061-66; that the SPR Policy’s definition of
22 “significant” was impermissibly narrow on its face, *id.* at 1070-74; and that, even if the definition
23 of “significant” were valid, the Service’s SPR analysis relied on faulty, insufficiently detailed
24 PECE analysis, *id.* at 1074-76.

25 46. The Court vacated the 2015 Listing Withdrawal, reinstated the 2013 Proposed
26 Listing Rule, ordered a new public comment period, and vacated the definition of “significant” in
27 the SPR Policy. *Desert Survivors*, 336 F. Supp. 3d at 1133, 1137.

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1 **D. The Service’s 2019 Proposed Listing Process and 2020 Listing Withdrawal**

2 47. In April of 2019, the Service announced the court-required reinstatement of the
3 2013 Proposed Listing Rule and the court-required reopening of public comment. 84 Fed. Reg.
4 14,909 (Apr. 12, 2019). In October, the Service announced a six-month extension of its final
5 listing determination. 84 Fed. Reg. 52,058 (Oct. 1, 2019).

6 48. In March 2020, the Service issued the 2020 Listing Withdrawal, doubling down on
7 its prior decision to withdraw the 2013 Proposed Listing Rule. *See* 85 Fed. Reg. at 18,084, 18,099.
8 As in the 2015 Listing Withdrawal, in the 2020 Listing Withdrawal the Service concluded that the
9 Bi-State Sage-Grouse should not be listed as threatened because, in light of ongoing and planned
10 conservation efforts, the population segment “does not meet the definition of a threatened or
11 endangered species.” 85 Fed. Reg. at 18,090.

12 **1. 2020 Status of the Bi-State Sage-Grouse**

13 49. The 2020 Listing Withdrawal incorporated new information regarding the status of
14 the Bi-State Sage-Grouse that had been obtained after the Service issued the 2013 Proposed
15 Listing Rule. This new information included a population and habitat analysis published by the
16 U.S. Geological Survey. *See* Peter S. Coates et al., U.S. Geological Survey, Open-File
17 Report 2019-1149, Population and Habitat Analyses for Greater Sage-Grouse (*Centrocercus*
18 *urophasianus*) in the Bi-State Distinct Population Segment: 2018 Update (2020) (“2020 Coates
19 Study”). This new information also included lek count data from the California Department of
20 Fish and Wildlife (CDFW) showing that declines in Bi-State Sage-Grouse populations have been
21 ongoing for decades in some areas, indicating that the stressors on the Sage-Grouse and the causes
22 of those declines have also been ongoing for decades. CDFW 2018 Lek Counts 1953-2018
23 Spreadsheet.

24 50. **Actual Population Size.** The population estimates for the Bi-State Sage-Grouse
25 worsened between the time of the 2013 Proposed Listing (when the Service first proposed that the
26 Bi-State Sage-Grouse was threatened) and the 2020 Listing Withdrawal (when the Service
27 concluded the opposite).
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1 51. When the Service issued the 2013 Proposed Listing Rule, the Service estimated the
2 Bi-State Sage-Grouse population to be between 1,833 and 7,416 individuals. *See* 78 Fed. Reg. at
3 64,362. In light of that estimate, the Service emphasized that the Bi-State Sage-Grouse population
4 was “below theoretical minimum criteria for long-term persistence”—that is, below the threshold
5 for avoiding extinction. *Id.*

6 52. The 2020 Coates Study indicates that, as of 2018, the Bi-State Sage-Grouse’s
7 population was 3,305. *See* 85 Fed. Reg. at 18,080. This new estimate lies within, and close to the
8 low end of, the population range that the Service previously considered “below theoretical
9 minimum criteria for long-term persistence.”

10 53. When the Service issued the 2013 Proposed Listing Rule, it provided estimated
11 population ranges for the Pine Nut PMU, Desert Creek–Fales PMU, Mount Grant PMU, Bodie
12 Hills PMU, and South Mono PMU. (There was insufficient data to provide an estimated
13 population range for the White Mountains PMU.) *See* 78 Fed. Reg. at 64,362. In light of those
14 estimated ranges, the Service emphasized that each PMU’s population was “below theoretical
15 minimum criteria for long-term persistence.” *Id.*

16 54. The 2020 Coates Study indicates that, as of 2018, the populations of four of these
17 five PMUs were either below the midpoint or below the low end of the previously estimated
18 range. *See* 2020 Coates Study at 26. The sole outlier in this respect, the Bodie Hills PMU, has a
19 population just 4% higher than the midpoint of the previously estimated range.

20 55. ***Effective Population Size.*** In the 2020 Listing Withdrawal, the Service introduced
21 the concept of “effective population size,” which it did not use in the 2013 Proposed Listing.

22 56. The term “effective population size” refers to the “the size of the idealized
23 population of breeding adults that would experience the same rate of loss of heterozygosity,
24 change in the average inbreeding coefficient, or change in variance in allele frequency through
25 genetic drift as the actual 28 population.” 2020 Species Report at 118. As effective population size
26 decreases, extinction risk increases due in part to “loss of genetic diversity, reduced fitness through
27 inbreeding depression and reduced adaptive (evolutionary) potential.” *Id.*

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1 57. Effective population size is often much lower than a population’s actual size, but
2 there is no clear consensus on the minimum effective population size that is acceptable. Franklin
3 (1980, entire) and Soule (1980, entire) indicate that effective population size should exceed 500
4 birds to avoid long-term extinction risk, but others find that to achieve this threshold, a total
5 population size of at least 5,000 birds is necessary to retain evolutionary potential—the basic
6 ability to adapt to environmental change. 2020 Species Report at 118; Lande 1995; Traill et al.
7 2010; and specific to sage-grouse, Aldridge and Brigham 2003.

8 58. The effective population size of the Bi-State Sage-Grouse as a whole is estimated
9 to be between 330 and 661. 2020 Species Report at 120. The total population size is 1,695 birds
10 below the 5,000-bird threshold required for long-term viability.

11 59. The Service also considered that the Bi-State Sage-Grouse range contains at least
12 four isolated, genetically discrete populations. *See* 2020 Species Report at 120. The Service
13 estimated the effective population sizes in these four clusters to be, respectively, between (1) 234
14 and 468 (Desert-Creek Fales, Mount Graham, and Bodie Hills), (2) 81 and 163 (Long Valley), (3)
15 4.5 and 9 (White Mountains), and (4) 3 and 6 (Pine Nut). *See id.* (Table 4). The Service also
16 explained that “[g]enetic and radio–telemetry studies, however, indicate that some sage-grouse
17 populations in the Bi-State area are isolated, suggesting that the effective population size is
18 actually less” than listed in Table 4. *Id.* at 120. Even at the very high end of these ranges, none of
19 the four genetically discrete population clusters has an effective population size that meets the
20 minimum number (between 500 and 5,000, depending on the study) that is necessary to protect
21 evolutionary potential or avoid long-term extinction risk of the Bi-State Sage-Grouse.

22 60. ***Range-Wide Population Trends.*** The population estimates discussed above provide
23 further evidence of the Bi-State Sage-Grouse’s long-term population decline.

24 61. In the 2020 Listing Withdrawal, the Service briefly discussed four different
25 statistical approaches to measuring Bi-State Sage-Grouse population trends but relied primarily on
26 the 2020 Coates Study. *See* 85 Fed. Reg. at 18,059-61.

1 62. The 2020 Coates Study analyzed Bi-State Sage-Grouse population trends across
2 three successive population cycles: 1995 to 2001, 2001 to 2008, and 2008 to 2018. The 2020
3 Coates Study found that the Bi-State Sage-Grouse population decreased 15.7% between 2001 and
4 2018 (two cycles) and decreased 9.6% between 2008 and 2018 (one cycle). 2020 Coates Study at
5 25. The 2020 Coates Study also described “substantial declines over the past 6 years.” *Id.*

6 63. Although the 2020 Coates Study analyzed only the period from 1995 to 2018, the
7 population declines that it described appear to be consistent with broader historical trends: The Bi-
8 State Sage-Grouse population has decreased at least 50% during the last 150 years, and the species
9 has been completely extinguished in many parts of its historical range. 2020 Species Report at 18.

10 64. Inexplicably, the Service interpreted the Coates Study as “suggest[ing] a general
11 pattern of population cycling within an otherwise stable population across the Bi-State [Sage-
12 Grouse range].” 85 Fed. Reg. at 18,060.

13 65. ***PMU-Level Population Trends.*** Looking at the Bi-State Sage-Grouse’s six
14 individual PMUs and the subpopulations, rather than the population as a whole, also shows
15 substantial declines across much of the range. Figure 1 shows the geographic distribution of the
16 PMUs and subpopulation center-points.

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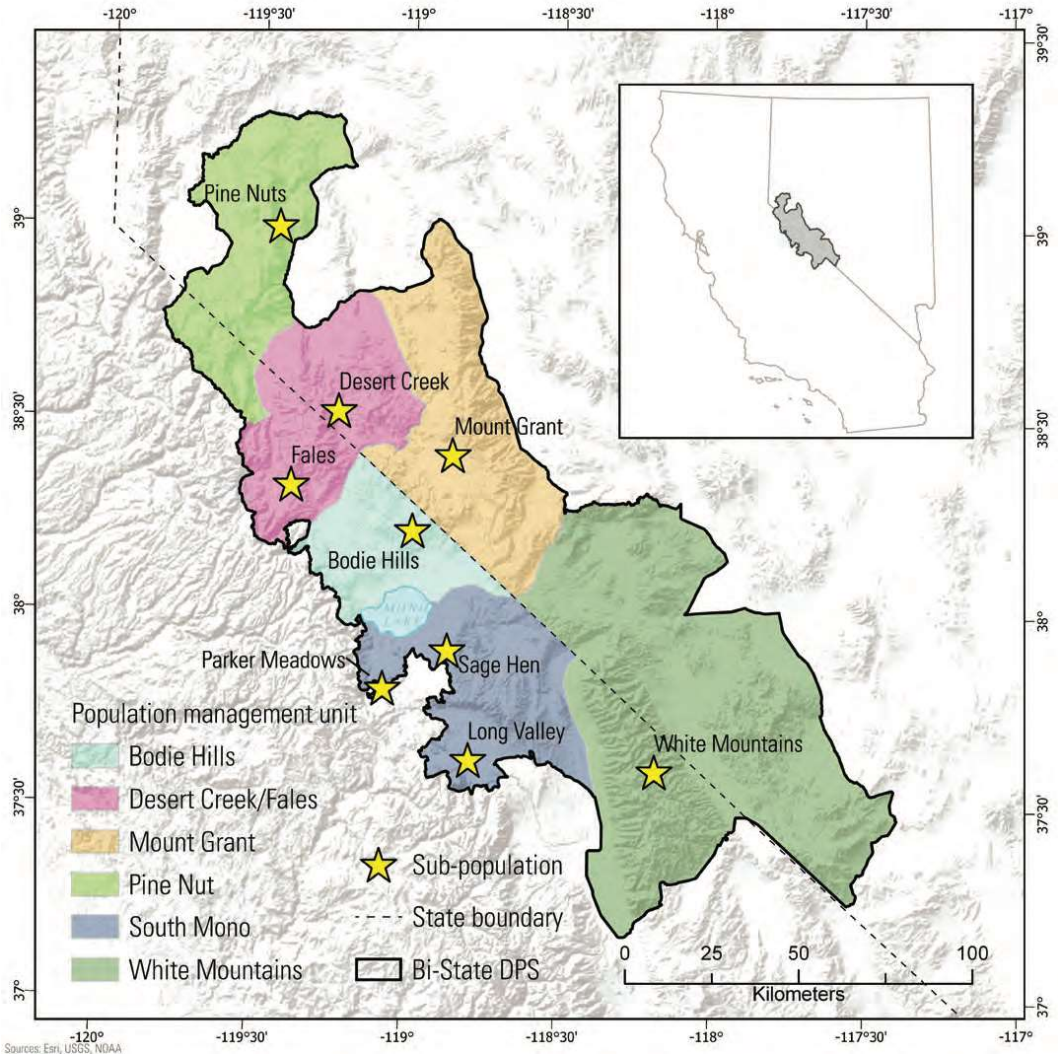


Figure 1. The geographic distribution of PMUs along the California-Nevada border, with stars denoting the approximate center-points of the subpopulations. This Figure appears as Figure 1 in the 2020 Coates Study.

66. The Pine Nut PMU lost, on average, 16.5% of its population each year between 2008 and 2018. (The 2020 Coates Study did not have enough data to calculate losses since 1995 or 2001.) 2020 Coates Study at 27; see also CDFW 2018 Lek Counts 1953-2018 Spreadsheet. The probability that this population will disappear in the next ten years is 69.7%. 2020 Coates Study at 26.

67. The Desert Creek–Fales PMU lost, on average, 5.3% of its population each year between 2001 and 2018, and 4.5% of its population each year between 2008 and 2018. 2020 Coates Study at 27. The probability that this population will be extinguished in the next ten years

1 is 9.0%. *Id.* at 26. The Fales subpopulation, considered on its own, has a 38.4% ten-year
2 extirpation probability, while the Desert Creek population has a 23.4% ten-year extirpation
3 probability. *Id.*

4 68. The Mount Grant PMU lost, on average, 1.1% of its population each year between
5 2008 and 2018. (The 2020 Coates Study did not have enough data to calculate losses since 1995 or
6 2001.) 2020 Coates Study at 27. The probability that this population will vanish in the next ten
7 years is 24.6%. *Id.* at 26.

8 69. The South Mono PMU lost, on average, 1.8% of its population each year between
9 2001 and 2018 and 3.9% of its population each year between 2008 and 2018. 2020 Coates Study
10 at 27. Although the entire PMU has only a 3.8% ten-year extirpation probability, the Sagehen
11 subpopulation, considered on its own, has a 74.8% ten-year extirpation probability, and the Parker
12 Meadows subpopulation, considered on its own, has a 64.3% ten-year extirpation probability. *Id.*
13 at 26.

14 70. The White Mountains PMU lost, on average, 15% of its population each year
15 between 2001 and 2018. (The 2020 Coates Study did not have enough data to calculate losses
16 since 1995 or 2001.) Coates Study at 27. The probability that this population will be extirpated in
17 the next ten years is 75.1%. *Id.* at 26.

18 71. The population of only one PMU, Bodie Hills, grew either between 2001 and 2018
19 or between 2008 and 2018. *See* 2020 Coates Study at 27. As the 2020 Coates Report explained,
20 Bodie Hills differs in material ways from the rest of the Bi-State Sage-Grouse PMUs. For
21 example, Bodie Hills has a relatively high elevation and high precipitation rates, both of which
22 buffer it against drought. *Id.* at 34. It has cool, moist soil, which makes it resilient to disturbance
23 and weed invasion. *Id.* at 35. And compared to the rest of the rest of the Bi-State Sage-Grouse
24 range, Bodie Hills contains relatively greater amounts of upland riparian springs and meadows,
25 which provide good brood-rearing habitat. *Id.*

1 72. **Range Contraction.** The Bodie Hills PMU is anomalous not only in terms of
2 natural features and population loss but also in terms of range contraction and habitat
3 fragmentation.

4 73. The 2020 Coates Study indicates that the annual total distributional area of the Bi-
5 State Sage-Grouse shrunk by 55,492 hectares (approximately 6.5%) between 2008 and 2018,
6 despite voluntary conservation measures intended to increase grouse habitat. *See* 2020 Coates
7 Study at 51-52. Among the subpopulations, Bodie Hills alone increased in distributional area
8 during this period; all other subpopulations “declined substantially in distributional area and
9 volume.” 2020 Coates Study at 67. According to the 2020 Coates Study, “[d]eclines were notably
10 precipitous at Pine Nuts, Fales, Sagehen, and White Mountains.” *Id.* at 54. Multiple “core”
11 distributional areas (DSAs) in Pine Nuts, Desert Creek, Fales, Sagehen, and White Mountains
12 became “functionally absent” as of 2018. *Id.* As the 2020 Coates Study concluded, “extirpation of
13 small periphery subpopulations appear to have disproportionate impacts on overall occupied
14 habitat.” *Id.* at 67.

15 74. In the 2020 Listing Withdrawal, the Service understated and largely dismissed this
16 severe range contraction in across the other subpopulations by repeatedly emphasizing the
17 minimal range expansion that has taken place in the Bodie Hills PMU. *See* 85 Fed. Reg. at 18,061,
18 18,094. That expansion, however, has not come close to offsetting the historical and continuing
19 contraction of the Bi-State Sage-Grouse range. *See, e.g.,* 2020 Coates Study at 45, 52.

20 75. **Limitations of the 2020 Coates Study.** The 2020 Coates Study has limitations that
21 lead it to systematically understate the threats faced by the Bi-State Sage-Grouse. For example, the
22 Study’s model contained incomplete data about some of the smaller, worse-performing areas in
23 the Bi-State Sage-Grouse range, which biased the modeling outcomes in favor of the more robust
24 populations like Bodie Hills PMU. Additionally, the model did not account for habitat parameters
25 such as height, forb diversity, and other field measurements of range quality, which would shed
26 light greater on the threats causing the continued decline of the Bi-State Sage-Grouse.

1 76. Even holding aside these limitations, the Service misinterpreted or failed to
2 properly account for many of the 2020 Coates Study’s key findings regarding the continued,
3 significant decline of the Bi-State Sage-Grouse.

4 **2. 2020 Listing Withdrawal: PECE Analysis**

5 77. In the face of overwhelming evidence of the dire condition of the Bi-State Sage-
6 Grouse, the Service concluded in the 2020 Listing Withdrawal that the population segment did not
7 qualify for listing as threatened under the ESA. The Service made this decision partly in light of
8 ongoing and planned conservation efforts that were analyzed using the PECE criteria.

9 78. As explained above, under the PECE, the Service must apply six “certainty of
10 effectiveness” criteria before determining that a particular conservation effort “contributes to
11 forming a basis for not listing a species, or for listing a species as threatened rather than
12 endangered.” *See* 68 Fed. Reg. at 15,114. The first criterion is “[t]he nature and extent of threats
13 being addressed by the conservation effort are described, and how the conservation effort reduces
14 the threats is described.” 68 Fed. Reg. at 15,115.

15 79. The Court’s 2018 decision held that the PECE analysis in the Service’s 2015
16 Listing Withdrawal was “arbitrary and capricious because it [did] not offer any basis for
17 concluding that the conservation efforts described in the 2012 BSAP are sufficiently certain to be
18 effective.” *Desert Survivors*, 321 F. Supp. 3d at 1065-66. More specifically, the Court held that the
19 Service’s analysis failed to provide sufficient details about the effects of various conservation
20 efforts, including pinyon-juniper and cheatgrass removal, on Bi-State Sage-Grouse. *See id.* at
21 1061-66. Those details included (1) the “magnitude of the impact on the species that the measures
22 can be expected to achieve,” and (2) the “estimated length of time that it will take for a formalized
23 conservation effort to produce a positive effect on the species.” *See id.* at 1065. In the 2020 Listing
24 Withdrawal, the Service did not address these two concerns.

25 80. The Service did not significantly update its PECE analysis between the 2015 and
26 the 2020 Listing Withdrawals. *Compare* 2020 PECE Analysis, *with* U.S. Fish & Wildlife Serv.,
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1 PECE Evaluation for the Bi-State Distinct Population Segment of Greater Sage-Grouse 2012 Bi-
2 State Action Plan (BSAP) (2015).

3 81. Notably, the recent population losses described in the 2020 Coates Study have
4 occurred despite numerous conservation efforts aimed at the Bi-State Sage-Grouse during the last
5 fifteen years. The Service claims that “[c]onservation measures, such as pinyon-juniper removal,
6 establishment of conservation easements for critical brood-rearing habitat, cheatgrass removal,
7 permanent and seasonal closure of roads near leks, removal and marking of fencing, and
8 restoration of riparian/meadow habitat have been completed over the past 15 years.” 85 Fed. Reg.
9 at 18,083. Yet the Bi-State Sage-Grouse continues to decline.

10 82. Indeed, according to the Service, the conservation efforts that have already been
11 implemented include the following:

- 12 • 19,800 acres of conservation easements secured between 2002 and 2012;
- 13 • 30,254 acres of conservation easements secured since 2012;
- 14 • 46 projects aimed at, among other things, “maintaining, improving, or restoring
15 riparian/meadow sites impacted by grazing animals” completed since 2012;
- 16 • 32 projects aimed at, among other things, “maintaining area closures to permitted
17 livestock, monitoring compliance with permitted terms and conditions, maintenance of
18 ‘let-down’ fencing, and meadow irrigation” conducted since 2012;
- 19 • 46,400 acres of pinyon-juniper removal;
- 20 • 7,400 acres of non-native conifer treatment maintenance;
- 21 • 1,300 acres of “chemical or mechanical treatments of non-native plant species”;
- 22 • 2,121 acres of weed monitoring;
- 23 • 19,000 acres of fire rehabilitation treatments; and
- 24 • 22 miles of power line and fencing removal projects.

25 *See* U.S. Fish & Wildlife Serv., PECE Evaluation for the Bi-State Distinct Population Segment of
26 Greater Sage-Grouse 2012 Bi-State Action Plan (BSAP), at 39-47 (2019) (“2020 PECE
27 Analysis”). Yet the Bi-State Sage-Grouse continues to decline.

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1 83. Despite the 2018 *Desert Survivors* decision, the Service did not explain with
2 particularity how, or on what timescale, the various conservation measures will effectively benefit
3 the Bi-State Sage-Grouse. Instead, most of the additions and changes the Service made in the 2020
4 PECE Analysis simply provided detail about the extent of conservation efforts that have already
5 been implemented. As explained above, these efforts include securing tens of thousands of acres of
6 conservation easements; completing dozens of projects aimed at restoring riparian and meadow
7 sites degraded by livestock grazing; removing pinyon-juniper from tens of thousands of acres;
8 applying non-native conifer treatments on thousands of acres; applying anti-invasive treatments on
9 over 1,000 acres; conducting weed monitoring on over 2,000 acres; implementing almost 20,000
10 acres of fire rehabilitation treatments; and removing over 20 miles of power lines and fences. 2020
11 PECE Analysis at 39-47.

12 84. Notably, the acreage of habitats either treated to improve sage-grouse habitat, or
13 kept the same through application of conservation easements that limit future habitat destruction,
14 affects only six percent of the 1.87 million acres the Service proposed to designate as critical
15 habitat for the species in 2013. 78 Fed. Reg. 64328.

16 85. The Service did not provide evidence that these already-implemented conservation
17 measures have been effective in counteracting the threats that are causing the continued decline of
18 the Bi-State Sage-Grouse population, or in triggering population increases. In fact, as described
19 above, population losses and range contraction in all PMUs except for Bodie Hills have continued
20 during the same period that these conservation measures have been implemented.

21 **3. 2020 Listing Withdrawal: SPR Analysis**

22 86. In the 2020 Listing Withdrawal, the Service concluded not only that the Bi-State
23 Sage-Grouse is not threatened “throughout all” of its range but also that it is not threatened
24 “throughout . . . a significant portion” of its range.

25 87. As explained above, in 2018 this Court vacated the SPR Policy’s definition of
26 “significant” nationwide. *See Desert Survivors*, 336 F. Supp. 3d at 1133, 1137. The Court agreed
27 with the plaintiffs that the SPR Policy’s definition of “result[ed] in a threshold under the
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1 ‘significant portion of its range’ definition that is functionally equivalent to the threshold under the
2 ‘throughout all’ definition.” *Desert Survivors*, 321 F. Supp. 3d at 1070-71. Because the Service’s
3 interpretation collapsed the distinction between disjunctive pieces of statutory language, it was
4 facially invalid. *See Desert Survivors*, 321 F. Supp. 3d at 1072.

5 88. In the 2020 Listing Withdrawal, the Service conceded that the SPR Policy’s
6 definition of “significant” had been invalidated. 85 Fed. Reg. at 18,908. The Service asserted that
7 its 2020 SPR analysis accorded with the SPR Policy and SPR Letter “as further refined by
8 applicable court decisions.” *See* 85 Fed. Reg. at 18,056. However, the 2020 Listing Withdrawal
9 contained only two sentences that appear to provide a new definition of “significant.” Specifically,
10 the Service asserted that it “screen[s] for significant portions of the range by applying any
11 reasonable definition of ‘significant.’” 85 Fed. Reg. at 18,098. And the Service then claimed that
12 “[b]iological importance/significance is often considered in terms of resiliency, redundancy, or
13 representation.” 85 Fed. Reg. at 18,098. The Service then proceeded to address resiliency,
14 redundancy and representation for only the two PMUs with the highest likelihood of extinction
15 (Pine Nut and White Mountains), ignoring the other PMUs. *See* 85 Fed. Reg. at 18,097-18,099.

16 89. For the Pine Nut PMU, the Service noted that “there is no unique observable
17 environmental usage or behavioral characteristics attributable to just this area’s population.” 85
18 Fed. Reg. at 18,098. The Service concluded that it “found no information indicating that the Pine
19 Nut PMU’s genetic characteristics represent a unique or significant adaptive capacity compared to
20 the remainder” of the Bi-State Sage-Grouse range. *Id.* For the White Mountains PMU, the Service
21 noted that “there is no unique observable environmental usage or behavioral characteristics
22 attributable to just this area’s population.” 85 Fed. Reg. at 18,098. The Service concluded that it
23 “found no information indicating that the White Mountains PMU’s genetic characteristics
24 represent a unique or significant adaptive capacity compared to the remainder” of the Bi-State
25 Sage-Grouse range. *Id.*

26 90. The Service thus only analyzed whether each portion it looked at (Pine Nut PMU
27 and White Mountains PMU) was “significant” by asking whether the portion had a “unique or
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1 significant adaptive capacity” as compared to the Bi-State Sage-Grouse range as a whole. The
2 Service did not analyze whether any portion of the range was significant on any basis other than
3 “adaptive capacity.” Notably, considering whether a portion of the range is “significant” by asking
4 whether some aspect of the species’ characteristics in that area is “significant” is circular and
5 inadequate.

6 91. The Service did not expressly analyze whether any combinations of PMUs, or any
7 other configurations of habitat besides the two individual PMUs described above, might constitute
8 “portions” of the Bi-State Sage-Grouse range. For example, the Service did not consider whether
9 the Pine Nut PMU and White Mountain PMU together were a significant portion of the range.
10 Similarly, despite the fact that the Service acknowledged that the Bodie Hills PMU has performed
11 better than the other five PMUs because of distinct ecological and climatic conditions, the Service
12 did not analyze the other five PMUs together as a potentially “significant” portion of the range
13 although the data shows the species is at greater risk of extinction in those other PMUs. *See* 2020
14 Coates Study at 26.

15 CLAIMS FOR RELIEF

16 First Cause of Action

17 **The 2020 Listing Withdrawal Is Arbitrary, Capricious, and Contrary to the ESA**

18 92. The Plaintiffs hereby re-allege and incorporate by reference the allegations of
19 paragraphs 1 through 91 herein as if set forth in full.

20 93. In determining in the 2020 Listing Withdrawal that the Bi-State Sage-Grouse does
21 not warrant listing as threatened under the ESA, the Service failed to properly apply the ESA’s
22 listing factors, 16 U.S.C. § 1533(a)(1), failed to adhere to or correctly interpret the best available
23 science, *id.* § 1533(b)(1)(A), and otherwise acted in an arbitrary and capricious manner, 5 U.S.C.
24 § 706(2)(A). In particular, the Service erred by doing the following in reaching making its
25 determination:
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- 1 a. Failing to adhere to the best available science showing that actual and effective
2 populations of Bi-State Sage-Grouse populations are almost uniformly below
3 theoretical minimum criteria for long-term persistence;
- 4 b. Failing to adhere to the best available science showing that Bi-State Sage-Grouse
5 populations are now estimated to be even lower than when the Service issued the
6 2013 Proposed Listing, despite the continued implementation of myriad
7 conservation measures;
- 8 c. Failing to adhere to the best available science showing that multiple PMUs and
9 subpopulations of Bi-State Sage-Grouse have a high likelihood of extirpation in the
10 next ten years; and
- 11 d. Improperly interpreting the results of the 2020 Coates Study as indicating that Bi-
12 State Sage-Grouse populations are stable.

13
14 **Second Cause of Action**

15 **The Service Misapplied the PECE in Violation of the ESA and APA**

16 94. The Plaintiffs hereby re-allege and incorporate by reference the allegations of
17 paragraphs 1 through 93 herein as if set forth in full.

18 95. The Service misapplied PECE's certainty-of-effectiveness criteria by failing to
19 provide detail about (1) the actual impact that conservation measures can have or have had on the
20 Bi-State Sage-Grouse population, and (2) the timeline on which formalized conservation measures
21 have, will, or are likely to produce a positive effect on the population.

22 96. To the extent that various conservation measures have already been implemented
23 and are ongoing, the Service does not provide relevant evidence that they have been effective in
24 counteracting the continued decline of the Bi-State Sage-Grouse population.

25 97. Because of these defects, the 2020 Listing Withdrawal violates the PECE and its
26 corresponding statutory provision, 16 U.S.C. § 1533(b)(1)(A).

Third Cause of Action

The Service’s SPR Analysis Violated the ESA and APA

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3 98. The Plaintiffs hereby re-allege and incorporate by reference the allegations of
4 paragraphs 1 through 97 herein as if set forth in full.

5 99. The Service has violated the APA by using an unclear definition of “significant” in
6 considering whether the species was threatened or endangered throughout a significant portion of
7 its range. The Service asserted that it utilized a new definition of “significant” to replace the SPR
8 Policy’s definition that was vacated by the Court in 2018 and that it applied an SPR analysis in
9 accordance with the 2018 court decision. The Service violated the APA by relying on a new
10 definition of “significant” where it provided no explanation of how it determined the metric it
11 would use and provided scant detail about its new definition. The Service stated only that it would
12 apply “any reasonable definition of ‘significant’” and that “[b]iological importance/significance is
13 often considered in terms of resiliency, redundancy, or representation.” These poorly articulated
14 and conclusory statements fail meet the baseline standards of clear, reasoned administrative
15 policymaking, especially given that the scope of the ESA’s protections that hinge on the definition
16 of “significant.”

17 100. The Service also violated the APA and ESA because it failed to properly address
18 “significance” in its SPR analysis. The Service’s analysis of whether the Bi-State Sage-Grouse is
19 threatened in a “significant portion” of its range looked only at whether either of two individual
20 PMU’s “genetic characteristics represent a unique or significant adaptive capacity compared to the
21 remainder” of the Bi-State Sage-Grouse range. The Service was concerned only with whether
22 certain genetic characteristics regarding adaptive capacity found in two individual PMUs could be
23 found in other areas of the species’ range. The Service failed to adequately explain why
24 significance was ultimately analyzed with regard to only “unique or significant adaptive capacity,”
25 rather than other “reasonable” factors of significance. The Service did not address whether either
26 of those two individual PMUs could be significant for reasons other than adaptive capacity, e.g.,
27 because they are at the edge of the species’ range or for other reasons.

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