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IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF ARIZONA

Center for Biological Diversity; Defenders of Wildlife, Plaintiffs, vs. Sally Jewell, Secretary of the Interior; United States Fish and Wildlife Service, Defendants.	No. _____ COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

INTRODUCTION

1. The Mexican gray wolf (Canis lupus baileyi) is one of the most endangered mammals in North America and has been listed under the Endangered Species Act since 1976. This "lobo" of Southwestern lore is the most genetically distinct lineage of wolves in the Western Hemisphere. Like wolves elsewhere across the United States, this smaller subspecies of wolf of Mexico and the American Southwest was driven to near extinction as a result of government predator-control efforts in the early to mid-20th century. Once reduced to only seven individuals in a captive breeding program, the United States Fish and Wildlife Service ("FWS" or "the Service") reintroduced the Mexican gray wolf into the wild in 1998. But as of December 2013, only an estimated 83 wolves lived in the wild in a single, genetically-depressed population in a small area of eastern Arizona and western New Mexico. Even if wolf numbers in the reintroduced population have increased in the past year, they remain far below the numbers that experts recommend as necessary to ensure successful recovery of the wolf.

2. The reintroduced population has not flourished, in significant part because, to date, FWS has imposed numerous restrictions on the Mexican gray wolf reintroduction program that impede efforts to bring this rare subspecies back from the brink of extinction. Under FWS's management, introduction of captive Mexican gray wolves into the wild is infrequent; Mexican gray wolves are constrained to an arbitrary geography; and the killing and removal of Mexican gray wolves—regardless of those wolves' genetic significance to the population—is widespread. By FWS's own estimation, the

reintroduced population "is not thriving" and remains "at risk of failure." U.S. Fish & Wildlife Serv., Mexican Wolf Conservation Assessment 14, 62, 78 (2010) [hereinafter 2010 Conservation Assessment].

3. This case challenges the FWS's January 16, 2015, revised rule governing the management of the wolf as an experimental population and the adequacy of the environmental impact statement on which it relies. See generally FWS Revision to the Regulations for the Nonessential Experimental Population of the Mexican Wolf, to be codified at 50 C.F.R. § 17.84(k) (Jan. 16, 2015) [hereinafter Final Rule]. The rule, promulgated under section 10(j) of the Endangered Species Act ("ESA"), 16 U.S.C. § 1539(j), contains a number of measures that will continue to impede Mexican gray wolf survival and recovery. In particular, it imposes limitations on both the size of the experimental population and the geographic range of the Mexican gray wolf that conflict with the conclusions of recognized wolf experts. The revised rule also loosens provisions governing the removal or killing of Mexican gray wolves, depressing both wolf numbers and genetic diversity.

4. Instead of relying on the best available science to frame these problematic provisions, FWS apparently acceded to demands by Arizona state wildlife officials for new limitations on the Mexican gray wolf population and its range, as well as demands for increased wolf removal to protect deer and elk, the wolves' natural prey, based on determinations by state officials that the wolf's impacts on deer or elk are "unacceptable." In doing so, FWS agreed to provisions that will impede the recovery and

threaten the very survival of this critically imperiled species and further institutionalized fundamental management flaws that have hindered Mexican gray wolf recovery to date.

5. Many of the rule's flaws stem from FWS's persistent failure to complete a scientifically grounded, legally valid recovery plan for the Mexican gray wolf subspecies. The ESA requires a recovery plan to organize and coordinate efforts to safeguard endangered species from extinction and restore them from their imperiled state. FWS released a document styled as a "Recovery Plan" for the Mexican gray wolf in 1982, but characterized it as "far from complete" and admitted that it did not fulfill the ESA's requirement for recovery planning; instead, it was intended only as a temporary, stopgap measure.

6. Indeed, the 1982 document does not address many of the critical issues that continue to imperil the Mexican gray wolf, and fails to lay out a comprehensive recovery program. Yet 32 years later, FWS still has not completed a legally compliant recovery plan for this critically imperiled subspecies and has prematurely terminated recovery planning processes for the wolf three times. Most recently, FWS in 2010 convened a team of many of the world's top wolf scientists to assist with the development of a recovery plan consistent with the best available scientific information. However, when that science subteam produced a draft recovery plan in 2012 that called for establishing additional Mexican gray wolf populations in the wild, FWS effectively suspended the planning process. As a result, there was no overarching plan for the wolves' recovery in place to guide the provisions of FWS's new revised rule.

7. Because of the deleterious consequences of FWS's long-delayed recovery planning, the Plaintiffs in this case are parties to a related lawsuit filed in this Court on November 12, 2014, alleging that FWS's failure to prepare a legally required recovery plan for the Mexican gray wolf violates section 4(f) of the ESA, 16 U.S.C. § 1533(f), and constitutes agency action unlawfully withheld and unreasonably delayed under the Administrative Procedure Act ("APA"), 5 U.S.C. § 706(1). Defenders of Wildlife v. Jewell, Case No. 4:14-cv-2472-FRZ. In that case, Plaintiffs request the Court to order FWS to complete a scientifically grounded, legally valid draft recovery plan for the Mexican gray wolf, requiring a draft plan within six months of this Court's judgment and a final plan within six months thereafter. Such a plan would provide needed guidance on critical issues such as establishment of additional populations and geographic range expansion sufficient to ensure wolf recovery as required by the ESA. And it would preclude the kind of deleterious ad hoc decision making that has plagued the Mexican gray wolf recovery program to date—and that is further manifested in the detrimental provisions of FWS's new revised ESA section 10(j) rule.

8. The revised rule violates the National Environmental Policy Act ("NEPA") and the Administrative Procedure Act ("APA"). FWS's failure to take a "hard look" at, and incorporate, the best available science in its environmental impact statement, and its failure to analyze reasonable, scientifically supported alternatives, violate NEPA and ultimately undermine the wolves' recovery.

9. In view of the fatal flaws in both the process and the substance of the section 10(j) rule, Plaintiffs ask the Court to set aside the challenged portions of the Rule and remand them to the Service for a new rulemaking that fully complies with NEPA and the APA.

JURISDICTION AND VENUE

10. This Court has jurisdiction over Plaintiffs' claims pursuant to 28 U.S.C. § 1331 (federal question) and may issue a declaratory judgment and further relief pursuant to 28 U.S.C. §§ 2201-02 and 5 U.S.C. § 706 (APA). Defendants' sovereign immunity is waived pursuant to the APA, 5 U.S.C. § 702.

11. Venue is proper in this District pursuant to 28 U.S.C. § 1391(e) because a substantial part of the events or omissions giving rise to Plaintiffs' claims occurred in this District. Additionally, Plaintiff Center for Biological Diversity is headquartered in Tucson, Arizona, and Plaintiff Defenders of Wildlife has an office in Tucson from which it conducts much of its work on the Mexican gray wolf.

12. This case should be assigned to the Tucson Division of this Court because the Mexican gray wolf occurs within the counties of this Division, FWS management activities related to the wolf occur within these counties, and Tucson is the location of the headquarters office for Plaintiff Center for Biological Diversity and the Southwest office for Plaintiff Defenders of Wildlife. L.R. Civ. 77.1(a), (c).

PARTIES

13. Plaintiff Center for Biological Diversity (the "Center") is a nonprofit organization dedicated to the preservation, protection and restoration of biodiversity, native species and ecosystems. The Center was founded in 1989 and is based in Tucson, Arizona, with offices throughout the country. 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 is actively involved in species and habitat protection issues and has more than 50,000 members throughout the United States and the world, including over 3,400 members in Arizona and New Mexico. The Center has advocated for recovery of the Mexican gray wolf since the organization's inception, and maintains an active program to protect the species and reform policies and practices to ensure its conservation. The Center brings this action on its own institutional behalf and on behalf of its members. Many of the Center's members and staff reside in, explore, and enjoy recreating in Southwestern landscapes, including those occupied by the Mexican gray wolf.

14. Plaintiff Defenders of Wildlife ("Defenders") is a national nonprofit conservation organization headquartered in Washington, D.C., with offices throughout the country, including a Southwest office in Tucson, Arizona. Defenders has more than 394,000 members, including more than 12,000 members in the southwestern states of Arizona and New Mexico. Defenders is a science-based advocacy organization focused on conserving and restoring native species and the habitat upon which they depend, and

has been involved in such efforts since the organization's establishment in 1947. Over the last three decades, Defenders has played a leading role in efforts to recover the Mexican gray wolf in the American Southwest.

15. Plaintiffs have a long-standing interest in the preservation and recovery of the Mexican gray wolf in the American Southwest. Plaintiffs and their members place a high value on Mexican gray wolves and recognize that a viable presence of these wolves on the landscape promotes healthy, functioning ecosystems. Plaintiffs actively seek to protect and recover the Mexican gray wolf through a wide array of actions including public education, scientific analysis, advocacy, and when necessary, litigation. In particular, the Center for Biological Diversity filed a petition and then litigation against the Service for its failure to revise the agency's prior ESA section 10(j) rule for the Mexican gray wolf, resulting in a settlement agreement which led to the rule revision process challenged in this complaint. Plaintiffs have participated and provided extensive comments during every stage of the 10(j) rule revision, including providing comments on the proposed rule and on the preliminary, draft and final environmental impact statements.

16. Plaintiffs and/or their members use public land in the American Southwest, including lands that FWS has designated as the Mexican Wolf Experimental Population Area ("MWEPA"), and lands outside of the MWEPA which contain suitable habitat for Mexican gray wolves. Plaintiffs use these areas for a wide range of activities, including recreational pursuits such as hiking, fishing, camping, backpacking, hunting, horseback

riding, bird watching, wildlife watching (including wolf watching), spiritual renewal, and aesthetic enjoyment. Plaintiffs and/or Plaintiffs' members have viewed or listened to Mexican gray wolves and found signs of wolf presence in Arizona and New Mexico, and have planned specific outings in order to search for wolves and indications of wolf presence. By adopting rule revisions that fail to conserve the Mexican gray wolf and ultimately threaten its very survival in the wild, the Service's actions will harm Plaintiffs' interest in viewing wolves and maintaining a healthy ecosystem. Furthermore, by violating the public notice and comment procedures of NEPA and including new information for the first time in the final environmental impact statement, the Service has harmed Plaintiffs' right to meaningfully participate in the agency's decision-making process. Accordingly, the legal violations alleged in this complaint cause direct injury to the aesthetic, conservation, recreational, scientific, educational, and wildlife preservation interests of the Plaintiffs and/or Plaintiffs' members.

17. Plaintiffs' and/or Plaintiffs' members' aesthetic, conservation, recreational, scientific, educational, and wildlife preservation interests have been, are being, and, unless their requested relief is granted, will continue to be adversely and irreparably injured by Defendants' failure to comply with federal law. These are actual, concrete injuries that are traceable to Defendants' conduct and would be redressed by the requested relief. Plaintiffs have no adequate remedy at law.

18. Defendant Sally Jewell is the United States Secretary of the Interior. In that capacity, Secretary Jewell has supervisory responsibility over the United States Fish and Wildlife Service. Defendant Jewell is sued in her official capacity.

19. Defendant United States Fish and Wildlife Service is a federal agency within the United States Department of the Interior. The Service is responsible for administering the ESA and NEPA with respect to terrestrial wildlife species and subspecies including the Mexican gray wolf.

LEGAL BACKGROUND

A. The Endangered Species Act

20. The Endangered Species Act, 16 U.S.C. §§ 1531-1544 ("ESA"), is "the most comprehensive legislation for the preservation of endangered species ever enacted by any nation." Tenn. Valley Auth. v. Hill, 437 U.S. 153, 180 (1978). Congress passed this law specifically to "provide a program for the conservation of ... endangered species and threatened species" and to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved." 16 U.S.C. § 1531(b).

21. To receive the full protections of the ESA, a species must first be listed by the Secretary of the Interior as "endangered" or "threatened" pursuant to ESA section 4. Id. § 1533. The ESA defines an "endangered species" as "any species which is in danger of extinction throughout all or a significant portion of its range." Id. § 1532(6). A "threatened species" is "any species which is likely to become an endangered species

within the foreseeable future throughout all or a significant portion of its range." Id. § 1532(20). The term "species" is defined to include "any subspecies of . . . wildlife." Id. § 1532(16).

22. Once a species is listed, an array of statutory protections applies. For example, ESA section 7 requires all federal agencies to ensure that their actions do not "jeopardize the continued existence" of any listed species or "result in the destruction or adverse modification" of its "critical habitat." Id. § 1536(a)(2). Section 9 and its regulations further prohibit, among other things, "any person" from intentionally "taking" listed species, or "incidentally" taking listed species, without a permit from FWS. See id. §§ 1538-1539. FWS must also "develop and implement" recovery plans for listed species "unless [the agency] finds that such a plan will not promote the conservation of the species." Id. § 1533(f)(1). While the ESA imposes numerous provisions to safeguard the survival of listed species, its overriding goal of conserving such species "is a much broader concept than mere survival. The ESA's definition of 'conservation' speaks to the recovery of a threatened or endangered species." Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv., 378 F.3d 1059, 1070 (9th Cir. 2004) (quotations and citation omitted).

23. Section 10(a)(1)(A) of the ESA, 16 U.S.C. § 1539(a)(1)(A), authorizes the Secretary of Interior to permit, "under such terms and conditions as he shall prescribe," "any act otherwise prohibited by [section 9 (i.e., a taking)] . . . for scientific purposes or to enhance the propagation or survival of the affected species, including, but not limited to, acts necessary for the establishment and maintenance of experimental populations

pursuant to subsection (j) of this section. . . ." See also 50 C.F.R. § 17.81(b). However, any such permit may be granted only if the Secretary finds that its issuance "will be consistent with the purposes and policy" of the ESA. 16 U.S.C. § 1539(d). Those purposes and policies mandate the "conservation"—meaning the recovery—of threatened and endangered species. Id. §§ 1531(b), (c)(1).

24. Section 10 also authorizes the Secretary to release a population of a threatened or endangered species into the wild as an "experimental population." 16 U.S.C. § 1539(j). Pursuant to section 10(j), before authorizing the release of an experimental population, the Service must determine that the release of such a population will further the conservation of that species. Id. § 1539(j)(2)(A). The Service must also identify the population and determine, on the basis of the best available information, whether the population "is essential to the continued existence" of the species. Id. § 1539(j)(2)(B). An "essential experimental population" is one "whose loss would be likely to appreciably reduce the likelihood of the survival of the species in the wild." 50 C.F.R. § 17.80(b). "All other experimental populations are to be classified as nonessential." Id.

25. An experimental population deemed essential is entitled to the full array of the ESA's substantive protections, but a nonessential experimental population is not. 16 U.S.C. § 1539(j)(2)(C). FWS sometimes relies on its section 10(j) authority to designate a species as "nonessential experimental"—as it did in this case—to avoid the ESA's strict

protective provisions in an effort to gain support from those who would otherwise oppose the species' reintroduction.

26. While a nonessential population under ESA section 10(j) does not receive the full protections of the Act, "each member of an experimental population shall be treated as a threatened species" except as otherwise specified. 16 U.S.C. § 1539(j)(2)(C). ESA section 4(d) authorizes the Service to issue regulations to govern the management of threatened species, but all such regulations must "provide for the conservation"—i.e., recovery—"of such species." Id. § 1533(d). The regulations that govern the Mexican gray wolf experimental population, pursuant to section 10(j) of the ESA, are found at 50 C.F.R. § 17.84(k). As described below, the 10(j) rule at issue in this case revised this rule to include measures, such as a population cap, limitations on the wolf's geographic range, and the liberalization of rules that allow for lethal and non-lethal removal of wolves, without satisfying NEPA's requirements that it rely on the best available science and take a hard look at whether the rule would satisfy the objective of the ESA – to recover the species.

27. In sum, the ultimate legal litmus test for any ESA section 10(j) regulation or section 10(a) permit is whether it provides for and facilitates the recovery of the affected species.

B. The National Environmental Policy Act

28. NEPA "is our basic national charter for protection of the environment." 40 C.F.R. § 1500.1(a). Congress enacted NEPA in 1969, directing all federal agencies to

assess the environmental impact of proposed actions that significantly affect the quality of the environment. 42 U.S.C. § 4332(2)(C). NEPA's core precept is simple: look before you leap. Id. § 4332(2)(C)(iii); 40 C.F.R. §§ 1502.2(f), (g), and 1506.1. Under NEPA, each federal agency must take a "hard look" at the impacts of its actions prior to the point of commitment, so that it does not deprive itself of the ability to "foster excellent action." See 40 C.F.R. § 1500.1(c). In this way, NEPA ensures that the agency will not act on incomplete information, only to regret its decision after it is too late to correct.

29. NEPA requires federal agencies to prepare an Environmental Impact Statement ("EIS") whenever they propose to take a "major federal action" that "may significantly affect the quality of the human environment." 42 U.S.C. § 4332(2)(C). An EIS is a "detailed written statement" that "provide[s] full and fair discussion of significant environmental impacts" and "inform[s] decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. §§ 1502.1, 1508.11. An EIS is "an action-forcing device" that "insure[s] that the policies and goals defined in the Act are infused into the ongoing programs and actions of the Federal Government." Id. § 1502.1. The scope of the EIS is defined by the purposes and mandates of the statutory authority under which the action is proposed. In this case, the sufficiency of the EIS must be evaluated with reference to the ESA's requirement to recover listed species.

30. NEPA's implementing regulations require each federal agency to disclose and analyze the environmental effects of its proposed actions, using "high quality" information and "[a]ccurate scientific analysis" "before decisions are made and before actions are taken." 40 C.F.R. § 1500.1(b). The agency must ensure the "scientific integrity[] of the discussions and analyses in environmental impact statements." Id. § 1502.24. The purpose of these requirements is to ensure that the public has information that allows it to question, understand, and, if necessary, challenge the proposal being considered by the agency.

31. Agencies must also "use the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment." Id. § 1500.2(e). The alternatives analysis is "the heart of the environmental impact statement." Id. § 1502.14. Agencies must "[r]igorously explore and objectively evaluate all reasonable alternatives" in an EIS that serve the purpose and need of the project. Id. § 1502.14(a). This discussion is intended to provide "a clear basis for choice among options by the decisionmaker and the public." Id. § 1502.14.

32. NEPA mandates that agencies prepare an EIS through a two-stage process, first preparing and soliciting public comment on a draft EIS that fully complies with NEPA's environmental analysis requirements. See id. §§ 1502.9(a), 1503.1(a)(4). Agencies must next prepare a final EIS that responds to comments received by the agency regarding the draft EIS. Id. §§ 1502.9(b), 1503.4(a).

33. "If the final action departs substantially from the alternatives described in the draft EIS, however, a supplemental draft EIS is required" to ensure that the opportunity for meaningful public comment is not frustrated by an agency "bait and switch" approach to decision-making. Russell Country Sportsmen v. U.S. Forest Serv., 668 F.3d 1037, 1045 (9th Cir. 2011). Thus, an agency must issue a "supplemental" EIS whenever it "makes substantial changes in the proposed action that are relevant to environmental concerns." Id. § 1502.9(c)(1)(i).

C. The Administrative Procedure Act

34. The APA confers a right of judicial review on any person adversely affected by final agency action, and provides for a waiver of the federal government's sovereign immunity. 5 U.S.C. §§ 701-706.

35. Upon review of agency action, the court shall "hold unlawful and set aside actions ... found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law." Id. § 706(2). An action is arbitrary and capricious "if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983). Further, "the agency must . . . articulate a satisfactory explanation for its action including a

rational connection between the facts found and the choice made." Id. (quotations and citations omitted)).

FACTUAL ALLEGATIONS

36. This case concerns a federal rulemaking process that represents a continuation of deleterious ad hoc decision making by the FWS concerning the management and recovery of the Mexican gray wolf. The FWS has never yet prepared a comprehensive, legally compliant recovery blueprint for the Mexican gray wolf, but instead has affirmatively impeded essential and statutorily required recovery planning processes while imposing a series of problematic management prescriptions for the wolf's only wild population. Those management prescriptions have not only failed to adequately facilitate the recovery of this extremely rare subspecies, but all too often have actively interfered with recovery measures identified as necessary in the best available scientific information and – in its more candid moments – even by the FWS itself. The challenged rulemaking continues that pattern of deleterious agency conduct. Still lacking the guidance that would be provided by a valid recovery plan, FWS has accorded undue deference to demands imposed by Arizona state officials for management measures that will not only continue to interfere with Mexican gray wolf recovery but will also endanger the Mexican gray wolf's very survival.

FWS'S STOPGAP AND ABORTED RECOVERY PLANNING EFFORTS

37. The absence of a legitimate agency blueprint for Mexican gray wolf recovery underlies the ongoing challenges facing the subspecies' recovery program. As

FWS has noted, without a valid recovery plan "to organize, coordinate and prioritize the many possible recovery actions, [a recovery] effort may be inefficient or even ineffective." Interim Endangered and Threatened Species Recovery Planning Guidance, Version 1.3 1.1-1 (June 2010) [hereinafter "Recovery Planning Guidance"]. The Mexican gray wolf reintroduction effort has been "inefficient or even ineffective," because the Service's 1982 "Recovery Plan" document lacks the fundamental scientific basis necessary to "organize, coordinate and prioritize" Mexican gray wolf recovery actions, as well as fundamental requirements such as established criteria that would signify full recovery and support eventual delisting.

38. The 1982 document was drafted without ESA-required recovery and delisting criteria because, at the time of the document's drafting, "the status of the Mexican wolf was so dire that the recovery team could not foresee full recovery and eventual delisting." 78 Fed. Reg. 35,719, 35,726 (June 13, 2013). As a result, the document's authors sought only "to ensure the immediate survival of the Mexican wolf." 2010 Conservation Assessment, at 22. They thus grounded the document in the maintenance of a captive breeding program and a stopgap measure of re-establishing in the wild "a viable, self-sustaining population of at least 100 Mexican wolves." Mexican Wolf Recovery Team, Mexican Wolf Recovery Plan 23 (Sept. 1982) [hereinafter 1982 "Recovery Plan" document].

39. Despite its stopgap nature, that 100-wolf measure has continued to serve as FWS's sole guidepost for the Mexican gray wolf reintroduction effort. As FWS has

stated, aside from the 100-wolf objective, "the gray wolf recovery effort in the Southwest operates without any guidance in terms of the number and distribution of wolves considered adequate for recovery and delisting." 2010 Conservation Assessment, at 7.

40. Yet the 100-wolf objective is admittedly an inadequate guidepost. In this regard, the Service "recognize[s] that the reestablishment of a single experimental population of Mexican wolves is inadequate for recovery and … [is] fully cognizant that a small isolated wolf population such as the experimental population now occupying the [Blue Range Wolf Recovery Area ("BRWRA"), which lies within the MWEPA] can neither be considered 'viable' nor 'self-sustaining'—regardless of whether it grows to a number of 'at least 100.'" U.S. Fish & Wildlife Serv., Final Environmental Impact Statement for the Proposed Revision to the Regulations for the Nonessential Experimental Population of the Mexican Wolf (*Canis lupus baileyi*) (November 2014) Ch. 1, at 17 [hereinafter FEIS]. FWS has further "acknowledge[d] that this [100-wolf] population target is … insufficient for recovery and delisting of C. l. baileyi, as the subspecies would still be in danger of extinction with a single population of this size." 78 Fed. Reg. 35,664, 35,695 (June 13, 2013) (emphasis added).

41. Since 1982, FWS has convened three recovery teams in an effort to develop a legitimate recovery plan. Three times, FWS has charged those teams with the task of drafting a recovery plan that reflects the best available scientific information. Three times, FWS has failed to issue such a plan.

42. In the first attempt, FWS in 1995 produced a draft recovery plan to supersede the 1982 "Recovery Plan" document. It was never finalized. The FWS Southwest Region convened another recovery team in 2003, but indefinitely suspended that recovery planning process in 2005.

43. FWS initiated the most recent recovery planning effort in 2010 when the Southwest Regional Director charged a Science and Planning Subgroup of the agency's Mexican Wolf Recovery Team with developing a recovery plan consistent with the best available scientific information. That subgroup included an interdisciplinary team of prominent scientists, including some of the world's foremost wolf biologists.

44. The Science and Planning Subgroup drafted a plan that proposed, based on the best available science, a minimum of three interconnected subpopulations, each of at least 200 animals, as part of a metapopulation of at least 750 Mexican gray wolves. A metapopulation consists of a group of distinct, spatially separated populations of the same species that are connected by dispersal. However, within two weeks of the release of a May 7, 2012, draft recovery plan containing this recommendation, FWS's Southwest Regional Director cancelled an upcoming recovery team meeting and effectively suspended the recovery planning process despite disagreement from members of the team who disputed the need to suspend the meetings.

THE MEXICAN GRAY WOLF REINTRODUCTION PROGRAM UNDER ESA SECTION 10(j)

45. The Mexican gray wolf is one of the most genetically, morphologically, and ecologically distinct lineages of wolves in the Western Hemisphere. It is believed to

be "the only surviving descendant[] of the first wave of gray wolves to colonize North America during the Pleistocene Epoch." Letter from Michael A. Mares, Ph.D., President, Am. Soc'y of Mammalogists, et al., to the Honorable Dan Ashe, Director, U.S. Fish & Wildlife Serv., Re: Recovery Planning for the Mexican Wolf (June 20, 2012). Mexican gray wolves historically inhabited Mexico and the southwestern United States, including portions of Arizona, New Mexico, and Texas. It appears that the subspecies also may have ranged into southern Utah and southern Colorado.

46. Largely at the behest of the livestock industry, the U.S. Biological Survey effectively exterminated the subspecies from the southwestern United States by the mid-1900s. In 1950, FWS (the institutional successor to the Biological Survey) launched a similar campaign in Mexico. According to FWS, the last known wild Mexican gray wolf in the United States was killed in 1970. It is believed that the subspecies was completely extinct in the wild by the mid-1980s.

47. Between 1977 and 1980, five Mexican gray wolves—four males and one female—were captured in Mexico. These wolves were placed in a captive breeding program and became known as the "McBride" lineage. Two other already-existing captive lineages, the "Aragón" and "Ghost Ranch" lineages, were also certified as genetically pure Mexican gray wolves in 1995. All individuals alive today come from a founding stock of seven of these captive Mexican gray wolves: three McBride wolves, two Aragón wolves, and two Ghost Ranch wolves.

48. In 1998, after a near thirty-year absence of Mexican gray wolves from the landscape, FWS released eleven captive-reared Mexican gray wolves under ESA section 10(j) as a nonessential experimental population into the BRWRA in east-central Arizona and west-central New Mexico. See 16 U.S.C. § 1539(j) (the "10(j)" provision for "experimental" populations); 63 Fed. Reg. 1752 (Jan. 12, 1998) (rule for the establishment of a 10(j) population of Mexican gray wolves in Arizona and New Mexico); see also 50 C.F.R. § 17.84(k)(9).

49. As described by FWS in the 1982 "Recovery Plan" document, the original, stopgap objective of the reintroduction effort was to achieve "a viable, self-sustaining population of at least 100 Mexican wolves" in the wild. 1982 "Recovery Plan" document, at 23. As of the Service's most recent population report in December 2013, the reintroduction program has fallen well short of that target, with only 83 individuals in the wild. At the end of 2013, the wild Mexican gray wolf population was neither viable nor self-sustaining. At its current size and level of genetic variation, the Mexican gray wolf population is "considered small, genetically impoverished, and significantly below estimates of viability appearing in the scientific literature." FEIS, Ch. 1, at 22. FWS has admitted that "[t]his would be true even at the 1982 Recovery Plan objective of 'at least 100 wolves.'" Id.

50. Several factors have contributed to the limited success of the reintroduction effort. Many are attributable to the actions—and failures to act—of FWS itself. Specifically, FWS has failed to respond to mounting genetic issues, inappropriately

limited the geography in which Mexican gray wolves can be released and can reside, excessively removed wolves from the wild, and failed to effectively respond to an extremely high level of illegal wolf mortality. These problems will persist—and may even be exacerbated—under the revised 10(j) rule.

Genetic Problems

51. The genetic challenges to Mexican gray wolf recovery largely stem from the small number of individuals that remained in existence when conservation efforts for this subspecies began. The extremely small number of founders in the captive breeding population (i.e., the Mexican gray wolves from which all individuals living today descend) has raised significant concerns about the long-term genetic health of the Mexican gray wolf subspecies. As FWS explains, "[t]he small number of founders upon which the existing Mexican wolf population was established has resulted in pronounced genetic challenges, including inbreeding (mating of related individuals), loss of heterozygosity (a decrease in the proportion of individuals in a population that have two different [variants of] a specific gene), and loss of adaptive potential (the ability of populations to maintain their viability when confronted with environmental variations)." FEIS, Ch. 1, at 4.

52. Inbreeding was a concern with the McBride lineage, which was founded by only three individuals. Indeed, by the mid-1990s, McBride pups had inbreeding levels "similar to … offspring from … full sibling or parent-offspring pairs." 78 Fed. Reg. at 35,704. In 1995, the captive breeding program integrated the Aragón and Ghost Ranch

lineages—both of which were also highly inbred—into the McBride lineage in an attempt to increase the overall genetic diversity of the founder population. After this integration of the three lineages, specific breeding protocols and genetic goals were established to inform Mexican gray wolf pairings.

53. Unfortunately, while the captive breeding facilities have more recently managed the Mexican gray wolf breeding program to preserve as much genetic diversity as possible, much of the genetic potential of the founding stock has been lost. The loss of genetic potential is the result of the small number of founder wolves, the fact that "[t]he Mexican wolf captive breeding effort … was not managed to retain genetic variation until several years into the effort," and the failure of the reintroduction program to facilitate the rapid expansion of a genetically diverse wild Mexican gray wolf population. FEIS, Ch. 1, at 20. Today, "[t]he captive population is estimated to retain only 3.01 founder genome equivalents, suggesting that more than half of the alleles (gene variants) from the seven founders have been lost from the population." 78 Fed. Reg. at 35,705. In other words, despite the fact that the founding stock for the current population consisted of seven individual wolves, the captive Mexican gray wolf population today retains the genetic material of only approximately three individual founders.

54. The wild population is in even worse genetic shape than the captive population. According to FWS, the wild population "has poor representation of the genetic variation remaining in the captive population. The wolves in the experimental population have Founder Genome Equivalents (FGE) that are 33 percent lower than

found in the captive population and the estimated relatedness … of these animals suggest that on average they are as related to one another as … full siblings are related to each other." FEIS, Ch. 1, at 20-21. FWS has acknowledged that "[w]ithout substantial management action to improve the genetic composition of the [wild] population, inbreeding will accumulate and … [genetic material] will be lost much faster than in the captive population." 78 Fed. Reg. at 35,706.

55. As would be expected in the present circumstances, there is already "evidence of strong inbreeding depression in the reintroduced [Mexican gray wolf] population," including reduced litter size and reduced pack size. 78 Fed. Reg. at 35,706. In other words, inbreeding has reduced the reintroduced Mexican gray wolves' ability to survive and reproduce. FWS has emphasized that "[h]igher levels of genetic variation within the experimental population are critically important to minimize the risk of inbreeding and support individual fitness and ecological and evolutionary processes." FEIS, Ch. 1, at 20. Unless rectified, the current "level of inbreeding depression may substantially reduce the viability of the population" and "limit the ability of future Mexican wolf populations to adapt to environmental challenges." 78 Fed. Reg. at 35,706. That is, inbreeding may result in a Mexican gray wolf population that suffers from both a genetically based reduction in survival and reproduction potential, and—again because of its genetic limitations—a reduced ability to respond to environmental changes.

56. To maximize genetic potential and prospects for recovery, FWS must commit to an active program of releasing genetically diverse wolves into the wild,

capitalizing on the genetic potential now available in the captive population before it is further depleted. Such releases, if managed properly, would promote "[r]apid expansion of the population …[,] further promot[ing] maintenance of genetic diversity." 2010 Conservation Assessment, at 60. Rapid expansion is critical because it will allow the released wolves to reproduce and express the full spectrum of remaining genetic potential—something they are unable to do in captivity due to constraints on the number of breeding facilities and holding space. In addition to minimizing the loss of genetic potential, it is critical to release more wolves into the wild in a timely fashion because "[i]f captive Mexican wolves are not reintroduced to the wild within a reasonable period of time, … physical … or behavioral changes resulting from prolonged captivity could diminish their prospects for recovery." 63 Fed. Reg. at 1755. As FWS itself said in 2010, "[t]he longer … threats [to the Mexican gray wolf] persist, the greater the challenges for recovery, particularly as related to genetic fitness and long-term adaptive potential of the population." 2010 Conservation Assessment, at 78.

57. Under the FWS's revised section 10(j) rule, the agency would maintain a single experimental Mexican gray wolf population of 300-325 individuals in the MWEPA and successfully integrate a small number of captive wolves into the population per generation. FEIS, Exec. Summary, at ES-8; id., Ch. 1, at 22. However, the FEIS for the revised rule ignores the substantial risk that a single, isolated population of wolves with a low level of genetic diversity, supplemented by an extremely low level of releases

of captive wolves, is insufficient to support the survival or recovery of the species in the wild.

Excessive Removals, Insufficient Releases & Illegal Mortality

58. The genetic impediments to recovery described above are exacerbated by extremely high levels of Mexican gray wolf take and removal from the wild. One of the reasons FWS reintroduced Mexican gray wolves as an ESA section 10(j) nonessential, experimental population was to "enable[] the Service to develop measures for management of the population that are less restrictive than the mandatory prohibitions that protect species with 'endangered' status. This includes allowing limited 'take' … of individual wolves …." 63 Fed. Reg. at 1754. FWS deemed such "[m]anagement flexibility" necessary "to make reintroduction compatible with current and planned human activities, such as livestock grazing and hunting" and "to obtain[] needed State, Tribal, local, and private cooperation." Id. FWS believed such "flexibility [would] improve the likelihood of success" of the reintroduction program and, ultimately, Mexican gray wolf recovery. Id. Unfortunately, as the past sixteen years have demonstrated, this management flexibility has not resulted in a successful reintroduction program. Instead, the reintroduction effort currently teeters on the brink of failure and the subspecies' recovery prospects remain in jeopardy.

59. Since reintroduction began, removal of Mexican gray wolves from the wild, whether by agency-authorized action or illegal killing by members of the public, has exacted a heavy toll on the Blue Range population. FWS itself removed 160 Mexican

gray wolves from the reintroduced population since 1998. Of these, FWS has killed or ordered the killing of twelve wolves and consigned twenty-four once-wild wolves to permanent captivity. The remaining 124 instances of removal were temporary removals, meaning those wolves remained theoretically eligible for translocation. However, some temporarily removed wolves, "while eligible for translocation, have been removed from consideration for future release." U.S. Fish & Wildlife Serv., Outcomes of Mexican Wolf Management Removals from the Blue Range Population, Arizona and New Mexico, 1998-2013 (Dec. 31, 2013). Such removal of Mexican gray wolves from the wild "[has] the same practical effect on the wolf population as mortality if the wolf is permanently removed." 2010 Conservation Assessment, at 61. Indeed, FWS has identified "[t]he high number of wolf removals … as a contributing factor hindering the population's growth." Id. at 55.

60. Wolves that are killed or permanently removed from the wild are no longer able to genetically enrich the reintroduced population. Nevertheless, to date, FWS has shown little regard for the genetic contribution or importance of individual wolves in authorizing take or removal. For example, in November 2007, FWS permanently removed the alpha male from the Aspen pack—then the most genetically valuable pack in the reintroduced population. In December of that year, it permanently removed the Aspen pack's alpha female and a yearling female, and temporarily removed several pups.

61. As FWS has recognized, "[t]he ability of management to address inbreeding depression in the Blue Range population is constrained by regulatory and

discretionary management mechanisms that do not incorporate consideration of genetic issues yet result in limitation or alteration of the genetic diversity of the population. … The … Mexican Wolf [Species Survival Plan program, a bi-national cooperative conservation program overseen by the Association of Zoos and Aquariums that manages the species' breeding so as to maintain a healthy, genetically diverse, and demographically stable population,] has recommended that until the representation of the Ghost Range and Aragon lineages has increased and demographic stability is achieved in the wild population, careful consideration of genetic diversity should be prioritized during decisions to permanently remove wolves." 2010 Conservation Assessment, at 60. Nevertheless, "[t]he Service has not developed any specific protocols to promote genetic fitness in the population in response to recent research and professional recommendations." Id. The absence of such protocols is particularly problematic because high levels of illegal killing of Mexican gray wolves coupled with the Service's lenient take provision and its inadequate record of releasing new wolves into the wild (only four new wolves have been released since 2008) mean that the genetic issues only stand to worsen and become harder to remedy.

Wolves' Inability to Roam

62. Even for Mexican gray wolves that are released or born into the wild and that persist, the road to recovery is daunting. To date, FWS has confined the wolves to an ecologically arbitrary geography that impedes the subspecies' recovery.

63. FWS's 1998 10(j) rule did not permit wolves to establish territories wholly outside the BRWRA boundary. When wolves attempted to establish territories outside this ecologically arbitrary boundary, FWS captured and relocated them. This boundary restriction "does not allow for natural dispersal movements from the BRWRA or occupation of the [larger MWEPA]." 78 Fed. Reg. at 35,727. This limitation hindered Mexican gray wolf recovery by preventing natural wolf behavior, i.e., wide-ranging dispersal to find unoccupied territories with sufficient prey, denning sites, and other basic life necessities.

64. If wolves are not allowed to disperse more widely, it is highly unlikely that a viable, self-sustaining population will ever be established. Experts have long counseled and FWS has acknowledged that the long-term conservation of the Mexican gray wolf will likely "'depend on establishment of a metapopulation or several semi-disjunct but viable populations spanning a significant portion of [the species'] historic range.'" FEIS, App. G, at 28 (citation omitted). Independent scientists have recently echoed this advice in a peer-reviewed scientific journal publication that FWS itself has cited as an authoritative source of the best available scientific information. The independent scientists stated that "viability of the existing wild population is uncertain unless additional populations can be created and linked by dispersal." Carlos Carroll et al., Developing Metapopulation Connectivity Criteria from Genetic and Habitat Data to Recover the Endangered Mexican Wolf, 28 Conservation Biology 76, 84 (2014) ("Carroll et al. (2014)"). As FWS has explained, "[f]or a species that has been extirpated from so

much of its historic range, explicit effort must be made to recreate redundancy" (where "[r]edundancy refers to the existence of redundant, or multiple, populations spread throughout a species' range"). 2010 Conservation Assessment, at 68, 72 (emphasis omitted).

65. Generally speaking, well-connected metapopulations are better able to withstand less favorable demographic rates (e.g., birth rate, fertility rate, life expectancy) and catastrophic environmental events (e.g., wildfire, disease outbreak) than are isolated populations. This is because (1) connectivity facilitates gene flow as individuals move among populations, which reduces the severity and effects of inbreeding, and (2) the existence of multiple populations helps to ensure that the species is not wiped out if a catastrophic event decimates one of the populations. A well-connected metapopulation is especially important for the recovery of the Mexican gray wolf, which right now exists in the wild as one extremely small, isolated, and genetically-threatened population.

66. FWS recognized the need for a metapopulation early on in its management of Mexican gray wolves. Even the inadequate 1982 "Recovery Plan" document provided that an appropriate interim objective for Mexican gray wolf conservation would be to establish at least a second population. FWS reiterated this objective in the 1996 FEIS for Mexican gray wolf reintroduction into the Blue Range, where the Service stated that "[f]ull recovery of the Mexican wolf subspecies likely will require additional reintroduction projects elsewhere." U.S. Fish & Wildlife Serv., Reintroduction of the Mexican Wolf within its Historic Range in the Southwestern United States: Final

Environmental Impact Statement 1-1 (Nov. 1996) [hereinafter 1996 FEIS]. The agency has admitted that meeting the 1982 document's 100-wolf objective "alone would not allow de-listing; other populations would need to be reestablished elsewhere in accordance with criteria … developed in the revision of the Mexican Wolf Recovery Plan." Id. at 5-42.

67. The Service acknowledged this need again in the Biological Opinion accompanying the 2014 FEIS for the proposed revision to the nonessential experimental population of the Mexican gray wolf, where the agency stated, that "[t]he recovery and long-term conservation of the Mexican wolf in the southwestern U.S. and northern Mexico is likely to 'depend on establishment of a metapopulation of several semi-disjunct but viable populations spanning a significant portion of [the subspecies'] historic range in the region.'" FEIS, App. G, at 28 (citation omitted). Nevertheless, FWS's management rules have not permitted, much less facilitated, such metapopulation establishment.

THE REVISED SECTION 10(j) RULE

68. The Service's 1998 10(j) Rule for the Mexican gray wolf provided that "[t]he Service will evaluate Mexican wolf reintroduction progress and prepare ... full evaluations after 3 and 5 years that recommend continuation, modification, or termination of the reintroduction effort." 50 C.F.R. § 17.84(k)(13).

69. Accordingly, in 2001 FWS conducted a Three-Year Review of the reintroduction program with a team of scientific experts. That review resulted in a

number of recommendations, including that FWS "immediately modify" the 10(j) rule to allow for more widespread releases of Mexican gray wolves and afford wolves more latitude to establish territories outside the BRWRA. The Three-Year Review warned that "[s]urvival and recruitment rates [for Mexican wolves] are far too low to ensure population growth or persistence" and "[w]ithout dramatic improvement in these vital rates, the wolf population will fall short of predictions for upcoming years." Paul C. Paquet et al., Mexican Wolf Recovery: Three-Year Program Review and Assessment 27 (2001). These recommendations for facilitating the presence of more wolves in expanded territory were supported by an independent analysis by the Arizona Game and Fish Department ("AZGFD") and the New Mexico Department of Game and Fish.

70. A subsequent Five-Year Review offered further support for these recommendations. The Five-Year Review was completed in 2005 by the Mexican Wolf Adaptive Management Oversight Committee ("AMOC") under the 10(j) rule. AMOC consisted of representatives from FWS, AZGFD, New Mexico Department of Game and Fish, U.S. Forest Service, Wildlife Services (a program within the U.S. Department of Agriculture), and the White Mountain Apache Tribe.

71. Like the Three-Year Review, the Five-Year Review recommended continuation of the reintroduction program subject to modifications that would allow wolves to expand their territory outside of the BRWRA and allow the release of wolves in New Mexico. FWS did not adopt any of these recommendations.

72. Finally, in 2012 – spurred on by citizen advocacy, including a petition and two lawsuits filed by Plaintiff Center for Biological Diversity – the Service commenced formal rulemaking to revise the Mexican gray wolf 10(j) rule. On June 13, 2013, the Service published a proposed rule to revise the existing nonessential experimental population designation of the Mexican gray wolf and several provisions of the associated 10(j) rule. 78 Fed. Reg. 35,719.

73. On July 25, 2014, FWS released for public review and comment a Draft Environmental Impact Statement ("DEIS") for the proposed rule. 79 Fed. Reg. 43,358 (July 25, 2014). In the DEIS, the Service analyzed three, nearly-identical action alternatives (one of which was the preferred alternative) and one "no action" alternative. None of the alternatives included a population cap or a phased process for wolf reintroduction and dispersal; each of those provisions appears for the first time in the final rule.

74. Indeed, in connection with the DEIS, FWS expressly rejected for further consideration an alternative that would establish a cap on the population of Mexican wolves. FWS explained that setting a cap would be "premature" without the guidance of a new recovery plan, and would "not contribute to the achievement of our objective to further the conservation of the Mexican wolf." U.S. Fish & Wildlife Serv., Draft Environmental Impact Statement for the Proposed Revision to the Nonessential Experimental Population of the Mexican Wolf (*Canis lupus baileyi*) Ch. 2, at 10 (July 16, 2014) [hereinafter DEIS]. Accordingly, Plaintiffs did not comment on those issues.

75. After release of the DEIS, however, the Service entered into detailed discussions with AZGFD concerning the terms of the revised 10(j) rule. Available correspondence indicates that AZGFD demanded that the Service establish a population cap for the Mexican gray wolf population, allow for removal of wolves that negatively impact ungulate populations based on AZGFD's determination, and limit the westward dispersal of Mexican gray wolves to shield elk herds from natural predation.

76. On August 26, 2014, FWS memorialized discussions about a population cap with representatives from AZGFD in an email to an AZGFD official. FWS acknowledged that "[l]ack of a cap is a deal breaker for [AZGFD]." Email from John Oakleaf to Jim deVos (Aug. 26, 2014). Nevertheless, FWS stated that AZGFD's demand for a population cap was "difficult for the Service" and that "discussions will have to occur at a director level for a cap per se to be implemented." Id. In the end, however, FWS incorporated language nearly identical to AZGFD's demand for a population cap into the FEIS and final rule, along with additional new provisions responding to AZGFD's demands to protect ungulate populations from natural wolf predation and to limit westward dispersal of wolves.

77. FWS published the FEIS for the revised 10(j) rule on November 25, 2014. It provides that the purpose for the revision "is to further the conservation of the Mexican wolf by improving the effectiveness of the Reintroduction Program in managing the experimental population." FEIS, Exec. Summary, at ES-3.

78. However, FWS ultimately undermined that purpose by imposing measures

that threaten to prevent the recovery of the Mexican gray wolf, consigning the species to a perpetual fight for survival. Specifically, FWS included a number of elements in the revised rule that are not supported by the best available science, conflict with expert recommendations, and which are deleterious to the recovery of the Mexican gray wolf. Among other things, the rule provides that:

a. FWS will manage a single experimental population of Mexican gray wolves capped at 300 to 325 individuals. FEIS, Exec. Summary, at ES-8.

b. FWS will seek to integrate only one to two effective migrants per generation from the captive population to the reintroduced population. Id., Ch. 1, at 22.

c. FWS will revise and reissue the Mexican Wolf Recovery Program's section 10(a)(1)(A) research and recovery permit so as to authorize removal of Mexican gray wolves that can be identified as coming from the experimental population that disperse to establish territories in areas outside the MWEPA, including from areas north of I-40 where needed recovery habitat exists. Id., Exec. Summary, at ES-8.

d. FWS will authorize more permits for the otherwise prohibited "taking"—e.g., capturing or killing—of Mexican gray wolves. 16 U.S.C. § 1539(a)(1)(A); FEIS, Exec. Summary, at ES-8.

e. FWS will authorize the take of Mexican gray wolves if it concurs with an AZGFD determination that they are having an "unacceptable impact" on wild, native ungulate (i.e., hoofed mammals, particularly deer and elk) herds. Id.

f. FWS will implement a phased approach for the release of Mexican gray

wolves with limitations on the western boundary of their range and which delays the initial release and dispersal of wolves into suitable habitat within the MWEPA. Id. at ES-7. FWS adopted this phased management approach based on AZGFD's concerns that elk herds in western Arizona may be negatively impacted by the dispersal of Mexican gray wolves into those areas.

79. FWS published its revised section 10(j) rule incorporating these terms in the Federal Register on January 16, 2015.

ANALYTICAL DEFECTS IN THE FEIS AND 10(j) RULE

80. On certain critical issues, FWS's revised 10(j) rule reflects undue deference to the demands imposed by AZGFD during the agency rulemaking process rather than a legitimate response to the best available scientific information concerning the survival and recovery needs of the Mexican gray wolf. Although the ESA encourages FWS to cooperate with states in implementing the ESA, it does not permit FWS to take such cooperation so far as to adopt measures that frustrate the statute's fundamental mandates for species survival and recovery. FWS did so here, and in doing so it made a series of analytical errors that undermined its ultimate conclusions concerning the environmental impacts of the revised 10(j) rule and thereby corrupted the agency's NEPA process.

81. Wolf experts have sounded a continuing refrain emphasizing the importance of increasing the absolute number and distribution of Mexican gray wolves in the wild. Rather than allowing for sufficient growth of the Mexican gray wolf population, FWS instead imposed a population cap of 300-325 individuals in the Blue

Range population. The Service relies on a peer-reviewed scientific journal publication, Carroll et al. (2014), to justify this cap, asserting that the authors' analysis demonstrates that extinction risk for the Mexican gray wolf is satisfactorily low for a single isolated population of 300-325 individuals. See FEIS, Ch. 1, at 20. In fact, Carroll et al. (2014) assessed extinction risk not for a single, isolated population, but for a population when it is present within a metapopulation of three connected populations. Carroll and other scientists did perform simulations to assess the long-term viability of an isolated population and found that, even at 300-325 individuals, "an isolated population originating from wolves with the genetic composition of the current Blue Range population showed relatively high extinction rate, long term decline in population size in those populations that did not go extinct, as well as" significant challenges related to genetic health. Letter from Carlos Carroll, Ph.D., et al., to Division of Policy and Directives Management, U.S. Fish & Wildlife Serv. Headquarters 4-5 (Dec. 19, 2014) [hereinafter Carroll et al. Letter]. FWS's placement of a cap on the Blue Range population thus places the sole wild Mexican gray wolf population in the United States at a high risk for extinction, something that by its very nature is inconsistent with long-term recovery of the species, let alone its basic survival.

82. In addition to artificially constraining the Mexican gray wolf population size, FWS failed to provide for the release of enough captive wolves to ensure the Blue Range population's genetic health. This failure also resulted from a misinterpretation of Carroll et al. (2014).

83. Specifically, FWS attempted to interpret the findings of Carroll et al. (2014) with respect to the number of effective migrants per generation necessary to sustain the Blue Range population. Effective migrants, i.e., individuals from outside the population that successfully breed and pass along their genes within the population, are critical for the long-term viability of the genetically impoverished Blue Range population. While "[i]n the context of a metapopulation, effective migration is achieved through dispersal from one population to another[, i]n the context of [the] current single experimental population [FWS] intend[s] to … us[e] initial releases from the captive population as a source of effective migrants." FEIS, Ch. 1, at 22. FWS would choose wolves with "appropriate genetic background" for release to bolster the Blue Range population gene pool. Id.

84. The Service concludes that it "need[s] to integrate two effective migrants into the population each generation while the population is around 100-250 animals. This number could decrease to one effective migrant per generation at population sizes greater than 250." Id. However, FWS again misinterpreted Carroll et al. (2014) in reaching this conclusion—this time with the result that the Service set the effective migration level too low to provide for genetic integrity of the reintroduced population.

85. Carroll et al. (2014) "estimated a rate of effective migration that would ensure acceptably low long-term erosion of genetic health in a recovered metapopulation of three populations." Carroll et al. Letter at 4. This is not analogous to the "optimal rate in the short-term for releases from the captive population" needed to improve the genetic

health of the current genetically impoverished Blue Range population. Id. As Carroll et al. explained in a letter to FWS:

> Our simulations suggest that ~2 effective migrants per generation may be enough to maintain the existing level of heterozygosity in the Blue Range population if adult mortality is low (~22-23%). However, given the current depauperate genetic composition and the high relatedness of the Blue Range population, in order for this population to contribute to recovery it is necessary to not only forestall further genetic degradation but also reduce the high relatedness of the Blue Range population and increase its levels of genetic variation. … Releases from the captive population at a rate equivalent to 2 effective migrants per generation would … be inadequate to address current genetic threats to the Blue Range population.

Id. (emphasis added). Accordingly, the effective migration rates established by FWS in the new rule are insufficient to address genetic threats to the Blue Range population. FWS's vague and unenforceable suggestion that it "may conduct additional releases in excess of 1-2 migrants per generation" and its reliance on the recovery planning process and adaptive management to "refine" its release rate do not remedy this shortcoming. Final Rule, at 20. Coupled with the population cap and in the absence of a metapopulation, these rates not only fail to respond to existing threats but go further to actually threaten the long-term recovery of the Mexican gray wolf.

86. FWS also ignored the harmful impact of prohibiting natural wolf dispersal outside the MWEPA – in particular to needed recovery habitat north of Interstate 40. The best available science makes clear that the establishment of several populations connected via effective migration is imperative for the genetic health and successful recovery of the Mexican gray wolf, and the Service itself has repeatedly admitted that "[t]he recovery and long-term conservation of the Mexican wolf in the southwestern U.S.

and northern Mexico is likely to 'depend on establishment of a metapopulation or several semi-disjunct but viable populations spanning a significant portion of [the species'] historic range in the region.'" FEIS, App. G, at 28 (citation omitted).

87. Wolf experts have identified suitable habitat outside the MWEPA boundaries—including habitat north of I-40—where these additional populations could be established. Specifically, Carroll et al. (2014) stated that "the southwestern United States has 3 core areas with long-term capacity to support populations of several hundred wolves each. These 3 areas . . . [include the] Blue Range . . ., northern Arizona and southern Utah (Grand Canyon), and northern New Mexico and southern Colorado (Southern Rockies)." The draft recovery plan prepared by the Service's Science and Planning Subgroup reached a parallel finding.

88. The Service ignored this best available science in its decision to confine Mexican gray wolves only to areas south of I-40. FWS claimed that it lacked a sound scientific basis for identifying important recovery habitat outside the MWEPA, overlooking the fact that Carroll et al. (2014)—the same study FWS cited in its misguided attempt to justify a population cap—and the studies it cites, including Carlos Carroll et al., Defining Recovery Goals and Strategies for Endangered Species: the Wolf as a Case Study, 56 BioScience 25 (2006), provide the scientific basis for identifying such habitat.

89. Further, while FWS recognizes that wolf dispersal beyond the MWEPA "may be important to the recovery of the Mexican wolf," it did not analyze in detail an

alternative to the revised 10(j) rule that included dispersal beyond MWEPA boundaries, including to areas north of I-40, despite credible studies showing that expansion of the wolf's range in that area would help conserve the species. FEIS, Ch. 1, at 32.

90. The revised 10(j) rule also liberalizes already too-lenient regulatory provisions authorizing take of reintroduced Mexican gray wolves. Even the current level of take has contributed to the ongoing "risk of failure" of the reintroduction program. Further, such take is often conducted without due regard for the genetic significance of the individuals taken—something the reintroduced population can ill afford. The FEIS did not adequately analyze the impacts of increased wolf removal on Mexican gray wolf recovery, particularly given the species' genetic predicament.

91. To justify liberalizing the take authorization, the revised rule relies on faulty and factually unsupported reasoning—namely, that the agency "expect[s] that modifying the provisions governing the take of Mexican wolves will reduce the likelihood of indiscriminate, illegal killing of wolves and will substantially lessen the overall risk of human caused wolf mortality." Mexican Wolf Recovery Program, Southwestern Reg'l Office, U.S. Fish & Wildlife Serv., Environmental Impact Statement for the Proposed Revision to the Nonessential Experimental Population of the Mexican Wolf (*Canis lupus baileyi*) and the Implementation of a Management Plan, Preliminary Draft, Ch. 1 and 2 35 (Aug. 2, 2013) [hereinafter Preliminary DEIS]; see also FEIS, Ch. 1, at 31-32 (hypothesizing that the take provisions "build[] trust and cooperation" and "social tolerance for wolves"). However, as the past sixteen years of the Mexican gray

wolf reintroduction program have demonstrated, liberal take rules have not prevented excessive illegal mortality or enhanced Mexican gray wolf recovery in the wild. To the contrary, illegal killing has been the single largest source of mortality for the reintroduced Mexican gray wolf population, in some years resulting in population declines of 10% or more. Further, recent research suggests that FWS has its logic backward, and that broad public authorization for lethal control of predators, including wolves, is linked to reduced public tolerance for those predators on the landscape.

FIRST CAUSE OF ACTION
(Violation of the National Environmental Policy Act)
Failure to Prepare a Supplemental Draft EIS

92. All preceding paragraphs are hereby incorporated as if fully set forth herein.

93. NEPA's implementing regulations provide that agencies shall prepare supplements to draft environmental impact statements if "[t]he agency makes substantial changes in the proposed action that are relevant to environmental concerns." 40 C.F.R. § 1502.9(c)(1)(i). Accordingly, if an agency departs substantially from the alternatives described in the draft EIS, a supplemental draft EIS is required. Russell Country Sportsmen, 668 F.3d at 1045. Failure to prepare such a supplemental draft EIS subverts the NEPA process, in part because the NEPA process contemplates that federal agencies shall respond to comments received on a draft EIS by taking various actions in the final EIS, including modifying the alternative actions under consideration, developing new alternatives, improving its environmental analysis, and/or making factual corrections.

See 40 C.F.R. § 1503.4. Absent a draft EIS that legitimately discloses and describes the agency's proposed action and attempts to analyze its environmental impacts, this iterative process, and the purpose it serves in promoting protection of the environment, is thwarted.

94. Here, FWS's final EIS for the revised 10(j) rule made substantial changes from the proposed action that were not disclosed to the public in the agency's draft EIS. The proposed action in FWS's final EIS adopted a population cap for the reintroduced Mexican gray wolf population that the agency explicitly rejected in the draft EIS and limited wolf dispersal west of Highway 87 in a staged manner that was not disclosed or even forecasted in the draft EIS. Nevertheless, FWS failed to prepare a supplemental draft EIS to provide relevant agencies, tribes and the public with an adequate opportunity to review and comment on these innovations, and to enable the agency itself to appropriately analyze and respond to such comments. This shortcuts the analytical and public comment process that NEPA requires.

95. FWS violated NEPA by failing to prepare a supplemental draft EIS to address substantial changes that the agency made in the proposed action that are relevant to environmental concerns.

SECOND CAUSE OF ACTION
(Violation of National Environmental Policy Act)
Failure to Take Hard Look and Insure Scientific Integrity of EIS

96. All preceding paragraphs are hereby incorporated as if fully set forth herein.

97. NEPA requires federal agencies, including the FWS, to take a "hard look" at the direct, indirect, and cumulative impacts of proposed major federal actions. 42 U.S.C. § 4332(2)(C)(i)-(ii); 40 C.F.R. § 1502.16, 1508.25(c). To take the required "hard look" at the impacts of a proposed project "an agency may not rely on incorrect assumptions or data in an EIS." Native Ecosystems Council v. U.S. Forest Serv., 418 F.3d 953, 964 (9th Cir. 2005). Further, agencies must ensure "the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements." 40 C.F.R. § 1502.24.

98. Here, in the environmental review of its proposed action set forth in the final EIS for the revised 10(j) rule, FWS failed to take a "hard look" and ensure the scientific integrity of its discussions and analyses. As one particularly significant example, FWS purported to rely on a 2014 peer-reviewed scientific journal publication by Carlos Carroll and other eminent scientists—Carroll et al. (2014)—to justify the imposition of a population cap on the reintroduced Mexican gray wolf population. However, FWS's EIS analysis misused and misrepresented the Carroll et al. (2014) publication. Specifically, Carroll et al. (2014) considered the extinction risk for Mexican gray wolf populations of various sizes within a complex of several populations connected by varying degrees of wolf dispersal and migration. Carroll et al. (2014) did not address the extinction risk for a much more precarious single, isolated population of 300 to 325 wolves and the analysis in Carroll et al. (2014) did not support the imposition of the population cap imposed in the proposed action set forth in FWS's final EIS.

99. FWS similarly misused and misinterpreted Carroll et al. (2014) in determining the number of releases of captive wolves necessary to address the wild Mexican gray wolf population's compromised genetic integrity. FWS concluded that releases sufficient to yield only two effective migrants were needed per wolf generation to sustain the wolf population while the population was between 100 and 250 animals, with even fewer releases needed at higher population levels. However, in a letter describing the findings of their 2014 study, Carroll et al. (2014) explained that the level of releases proposed by the government would be inadequate to address current genetic threats to the Blue Range population. See Carroll et al. Letter at 4 (emphasis added). FWS had misconstrued Carroll et al. (2014) by applying the authors' findings—which looked at levels of effective migration necessary to retain genetic integrity within a more genetically diverse metapopulation—to the single, genetically impoverished Blue Range population. Carroll et al. (2014) does not support FWS's finding as to necessary levels of effective migration, and FWS failed to take a hard look at the actual genetic consequences of the insufficient levels of effective migration that the agency prescribed.

100. The proposed action set forth in FWS's final EIS also imposed a restriction on dispersal of wolves from the reintroduced Mexican gray wolf population to areas north of Interstate 40 in Arizona and New Mexico. Further reflecting FWS's failure to take a "hard look" and ensure the scientific integrity of its discussions and analyses, FWS sought to justify this restriction on the asserted ground that there does not exist any sound, peer-reviewed scientific basis to provide guidance on where Mexican gray wolf

populations must be established to reach full recovery. However, Carroll et al. (2014)—the same publication upon which FWS attempted to rely in imposing the population cap—discussed this issue. Carroll et al. (2014) stated that "the southwestern United States has 3 core areas with long-term capacity to support populations of several hundred wolves each. These 3 areas … [include the] Blue Range …, northern Arizona and southern Utah (Grand Canyon), and northern New Mexico and southern Colorado (Southern Rockies)." Carroll et al. (2014), at 78, referencing Carlos Carroll et al., Defining Recovery Goals and Strategies for Endangered Species: the Wolf as a Case Study, 56 BioScience 25 (2006). Two of the referenced core areas—those in the Grand Canyon and Southern Rockies regions—are located north of Interstate 40 where wolf dispersal is prohibited pursuant to the proposed action in FWS's final EIS. FWS failed to consider Carroll et al. (2014) in examining the impacts of restricting wolf dispersal north of Interstate 40.

101. As yet another example of FWS's failure to take a "hard look" and ensure the scientific integrity of its discussions and analyses, FWS proposed to authorize removal of Mexican gray wolves if AZGFD determines they are having an "unacceptable impact" on wild, native ungulate herds. Under the FWS's proposed approach, this determination would be based on either the state agency's own "ungulate management goals" or a documented "15 percent decline in an ungulate herd." FEIS, Exec. Summary, at ES-8. Yet, the best available science shows that not only do ungulate population sizes vary widely based on a number of factors having little to do with predation pressure, but

even obtaining an accurate count of ungulate population size "is a difficult task, almost always with confidence intervals so wide that it is hard to tell when a herd size has changed." Letter from L. David Mech, Senior Research Scientist, U.S. Geological Survey and Adjunct Professor, Univ. of Minn., to Sherry Barrett (Aug. 11, 2014). FWS thus failed to take a hard look at the actual impact of such a vague and ill-defined take authorization on wolf recovery.

102. FWS violated NEPA by misusing, ignoring, and making incorrect assumptions regarding the Carroll et al. (2014) study and other scientific information in a manner that subverted the agency's analysis of environmental impacts associated with the proposed action set forth in the final EIS.

THIRD CAUSE OF ACTION
(Violation of National Environmental Policy Act)
Failure to Consider a Reasonable Range of Alternatives

103. All preceding paragraphs are hereby incorporated as if fully set forth herein.

104. NEPA requires that agencies proposing major Federal actions significantly affecting the quality of the human environment must consider "alternatives to the proposed action." 42 U.S.C. § 4332(2)(C)(iii). NEPA's implementing regulations augment this duty, providing that agencies must "[r]igorously explore and objectively evaluate all reasonable alternatives." 40 C.F.R. § 1502.14(a). The discussion of alternatives "is the heart of the environmental impact statement," id. § 1502.14, because it constitutes the means by which the agency may assess whether its proposed action may

be undertaken with fewer environmental impacts. The discussion of alternatives must "sharply defin[e] the issues and provid[e] a clear basis for choice among options by the decisionmaker and the public." Id. "The existence of a viable but unexamined alternative renders an environmental impact statement inadequate." Natural Res. Def. Council v. U.S. Forest Serv., 421 F.3d 797, 813 (9th Cir. 2005) (quotations omitted).

105. Here, FWS's final EIS set forth the agency's purpose "to further the conservation of the Mexican wolf by improving the effectiveness of the Reintroduction Project in managing the experimental population," FEIS, Executive Summary, at 3 – in effect, to further the recovery of the Mexican gray wolf by improving management of the Mexican gray wolf population as required by the Endangered Species Act. Nevertheless, in exploring options for such management improvements, FWS gave detailed consideration to three action alternatives, none of which included needed conservation measures for the Mexican gray wolf that would have satisfied the agency's purpose in revising the 10(j) rule.

106. Important conservation measures omitted from the alternatives studied by FWS in detail included, without limitation, measures permitting Mexican gray wolves to disperse into needed recovery habitat north of Interstate 40 and imposing safeguards to ensure against the removal of genetically significant Mexican gray wolves through the revised 10(j) rule's expanded provisions for "taking" wolves through capture or killing. Plaintiffs each proposed a conservation alternative including several such measures in their respective comments on the Preliminary DEIS, but the FWS failed to adequately

address these proposals in either the DEIS or FEIS. See Letter from Michael J. Robinson, Conservation Advocate, Center for Biological Diversity 30 (Sept. 19, 2013) and Letter from Jamie Rappaport Clark, President and CEO, Defenders of Wildlife 9 (Sept. 19. 2013).

107. FWS violated NEPA by failing to consider a reasonable range of alternatives.

REQUEST FOR RELIEF

THEREFORE, Plaintiffs respectfully request that this Court:

1. Declare that FWS acted arbitrarily and capriciously and violated NEPA in revising the ESA section 10(j) rule for the Mexican gray wolf population and issuing an associated ESA section 10(a)(1)(A) permit;

2. Set aside and remand the challenged portions of the FWS's revised 10(j) rule, 10(a)(1)(A) permit, and final EIS for the Mexican gray wolf population;

3. Award Plaintiffs their reasonable fees, costs, and expenses, including attorneys' fees, associated with this litigation; and

4. Grant Plaintiffs such further and additional relief as the Court may deem just and proper.

DATED this 16th day of January, 2015,

s/ Timothy J. Preso

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