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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ARIZONA

Center for Biological Diversity; Defenders of
Wildlife,

Plaintiffs,

vs.

Deb Haaland, Secretary of the Interior; United
States Fish and Wildlife Service,

Defendants.

No. _____

COMPLAINT FOR
DECLARATORY AND
INJUNCTIVE RELIEF

INTRODUCTION

1. This case challenges the most recent of the United States Fish and Wildlife Service's ("FWS" or "the Service") flawed attempts to promulgate a management rule that provides for the conservation of Mexican gray wolves (Canis lupus baileyi) under the Endangered Species Act ("ESA" or "the Act").

2. The Mexican gray wolf is the most genetically distinct subspecies of gray wolf in the Western Hemisphere. These wolves historically inhabited a region that today encompasses Mexico and the southwestern United States, including portions of Arizona, New Mexico, and Texas. Although historical records are incomplete, FWS estimates that Mexican wolves once numbered in the thousands across this region.

3. Like wolves elsewhere across the United States, this smaller subspecies of wolf was driven to near extinction as a result of government-sponsored predator killing in the early to mid-20th century. As a result, FWS in 1976 listed the Mexican gray wolf as endangered under the ESA. In a last-ditch effort to preserve the species from extinction, the last remaining Mexican wolves were captured and placed in a captive breeding program. All individuals alive today descend from a founding stock of seven wolves in that program.

4. FWS began reintroducing Mexican wolves into the wild in 1998 pursuant to its authority under section 10(j) of the ESA. See 16 U.S.C. § 1539(j). Section 10(j) authorizes FWS to reintroduce members of an endangered or threatened species to the wild and modifies the ESA's regulatory framework to facilitate such reintroductions. In authorizing the Mexican wolf reintroduction, the Service labeled the released wolves a

“nonessential experimental population” within the meaning of section 10(j), a designation that exempts such populations from certain of the Act’s protective provisions.

5. The Service’s attempts to manage the wild Mexican wolf population—through several iterations of a “10(j)” management rule—have been inadequate since they began. In particular, FWS has repeatedly failed to follow the best available scientific evidence regarding the measures needed to recover Mexican wolves. Because all reintroduced wolves descend from a small number of captive individuals, genetic diversity was always a prime concern. But FWS has repeatedly ignored some of the most important scientific recommendations on rehabilitating Mexican wolf genetics. For example, scientists counseled a minimum rate of release of captive wolves—which are more genetically diverse than their wild counterparts—to build greater genetic diversity in the wild population, but the Service went below the recommended minimum. Scientists also warned that widespread killings and removals of wolves—without regard to a wolf’s genetic significance to the population—would have deleterious effects, but the Service has repeatedly authorized killings without adequate safeguards for genetic integrity. Scientists further recommended the creation of a “metapopulation” of wolves—consisting of at least three spatially separate but interconnected Mexican wolf populations—for sustainable recovery, yet the Service has prescribed a single, isolated Mexican wolf population in the United States and imposed an arbitrary northern boundary on the wild Mexican wolf range, keeping the wolves from accessing promising recovery habitat elsewhere in the Southwest.

6. As a result, the population has struggled. While the wild population has grown since reintroduction began in 1998, it is far from secure. The population remains isolated and extremely genetically depressed: on average, any two wolves are about as closely related to each other as full siblings. This carries significant threats for the long-term viability of the population, as genetically depressed wolves have reduced reproductive success and disease resistance, and suffer from numerous cumulative health problems. Moreover, the wild Mexican gray wolf population is propped up by a Service-sponsored supplemental feeding program, which masks the extent of the population's genetic impoverishment. This feeding program also obscures the ongoing threat of human-caused mortality to the Mexican wolf population, as supplemental feeding reduces unresolved conflicts between wolves and livestock operations that would otherwise likely arise. Experts fear that, were the supplemental feeding program to terminate, the wild Mexican wolf population would suffer severe setbacks unless sufficient work is undertaken to alleviate the existing inbreeding and mortality threats.

7. On March 31, 2018, this Court held that the Service's issuance of a Mexican wolf 10(j) management rule on January 16, 2015 (the "2015 10(j) Rule") violated the ESA and the Administrative Procedure Act ("APA"), and remanded the rule to the Service. See Ctr. for Biological Diversity v. Jewell, 2018 WL 1586651 (D. Ariz. Mar. 31, 2018). Specifically, the Court held that the 2015 10(j) Rule's provision for a single, isolated population capped at 325 wolves, with only one or two "effective migrants" per generation (i.e., released wolves that successfully reproduce in the wild population), did not "further the conservation of the species" and misinterpreted critical

scientific findings. Id. at *13-17. These provisions were emblematic of the Service’s impermissibly short-term goal of only “persistence”—versus recovery—of the Mexican wolf, the Court ruled. Id. at *14. The Court also held that expanded “take”—i.e., killing or removal—provisions in the 2015 10(j) Rule did not contain adequate safeguards against the loss of genetically valuable wolves, and found that the Service’s decision to maintain a northern boundary for the population at highway I-40 threatened to compound the problems created by other provisions of the rule. Id. at *14-15 & n.13.

8. The Court remanded the 2015 10(j) Rule to FWS and ultimately allowed the agency until July 1, 2022 to correct its legal errors and promulgate a new 10(j) rule that legitimately prescribes measures for the conservation of the Mexican wolf under the ESA. On July 1, 2022, FWS published the new rule resulting from its remand process in the Federal Register. See Final Rule, Endangered and Threatened Wildlife and Plants; Revision to the Nonessential Experimental Population of the Mexican Wolf, 87 Fed. Reg. 39,348 (July 1, 2022) (“Revised 10(j) Rule”).

9. However, the newly Revised 10(j) Rule does not remedy the defects of the 2015 rule but instead perpetuates many of them. Although the Revised 10(j) Rule purports to dispense with the 2015 10(j) Rule’s unlawful population cap of 325 wolves, FWS replaces that provision with a “management target” that continues to prescribe a single, isolated population of about 320 wolves in the United States. Instead of increasing the number of “effective migrants” adequately to address genetic threats, FWS establishes a “genetic objective” that replaces “effective migrant” as a benchmark of genetic management with a new metric focusing on released wolves that merely survive

to breeding age—regardless of whether the released wolves actually reproduce and thereby contribute to the wild population’s genetic integrity. Further, FWS’s new rule modifies the previous rule’s excessive taking authorizations, but only insofar as they are now contingent on the achievement of the genetic objective which, itself, fails to ensure the subspecies’ long-term recovery. Finally, FWS once again ignored scientific evidence prescribing a larger metapopulation structure for Mexican wolf recovery and, even worse, effectively precluded establishment of such a metapopulation by maintaining the arbitrary northern boundary for the experimental population area.

10. Underlying this illegitimate agency response to Mexican wolf recovery needs is FWS’s failure to grapple with the environmental impacts of its chosen course of action, and to consider more legitimate alternative approaches, as required by the National Environmental Policy Act (“NEPA”), 42 U.S.C. § 4321 *et seq.* NEPA required FWS to take a “hard look” at the impacts of its management choices for the Mexican wolf population, to ensure the scientific integrity of its analyses, and to thoroughly consider alternatives that would yield better environmental outcomes. Instead of following NEPA’s mandates, FWS’s environmental analysis for the Final Rule applied faulty scientific reasoning, disregarded expert analysis, and failed to explore more conservation-oriented alternatives—including even by failing to consider modifying certain provisions of FWS’s 2015 10(j) Rule that were specifically called into question by this Court.

11. For these reasons, the Revised 10(j) Rule violates the National Environmental Policy Act and the APA, and Plaintiffs once again turn to this Court for relief.

JURISDICTION AND VENUE

12. 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.

13. 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 staff in Tucson who conduct much of the organization's work on the Mexican gray wolf.

14. 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 Southwest regional staff for Plaintiff Defenders of Wildlife. L.R. Civ. 77.1(a), (c).

PARTIES

15. 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 89,000 members throughout the United States and the world, including more than 5,500 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.

16. Plaintiff Defenders of Wildlife ("Defenders") is a national nonprofit conservation organization headquartered in Washington, D.C., with offices and staff throughout the country, including in Tucson, Arizona. Defenders has more than 356,000 members, including more than 11,000 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.

17. Plaintiffs bring this action on their own institutional behalfs and on behalf of their members. Many of Plaintiffs' members and staff reside in, explore, and enjoy recreating in Southwestern landscapes, including those occupied by the Mexican gray wolf. 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 to search for wolves and indications of wolf presence.

18. 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. Plaintiffs have participated and provided extensive comments during FWS’s 10(j) rulemaking processes, including by providing comments on the proposed rule and on the draft supplemental environmental impact statement for the Revised 10(j) Rule at issue.

19. By promulgating a Revised 10(j) Rule that fails to conserve the Mexican gray wolf and ultimately threatens its very survival in the wild, the Service’s actions will harm Plaintiffs’ interest in viewing wolves and maintaining a healthy ecosystem. The legal violations alleged in this complaint thus cause direct injury to the aesthetic, conservation, recreational, scientific, educational, and wildlife preservation interests of Plaintiffs and their members.

20. Plaintiffs’ and their 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.

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

22. 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. The Service promulgated the Revised 10(j) Rule challenged in this case.

LEGAL BACKGROUND

I. The Endangered Species Act

23. The Endangered Species Act, 16 U.S.C. §§ 1531–44, 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).

24. 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).

25. Once a species is listed, an array of statutory protections applies. For example, ESA section 7 requires all federal agencies to consult with expert federal biologists so as 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 prohibit, among other things, “any person” from intentionally “taking” listed species, or “incidentally” taking listed species, without a permit from FWS. See id. §§ 1538–39. 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).

26. 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.” Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv., 378 F.3d

1059, 1070 (9th Cir. 2004). The ESA defines “conservation” as “the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to [the ESA] are no longer necessary.” 16 U.S.C. § 1532(3) (emphasis added). Thus, “[t]he ESA’s definition of ‘conservation’ speaks to the recovery of a threatened or endangered species.” Gifford Pinchot Task Force, 378 F.3d at 1070 (quotations and citation omitted) (emphasis added). The ESA’s recovery objective “envisions self-sustaining populations that no longer require the protections or support of the Act,” Ctr. for Biological Diversity, 2018 WL 1586651, at *4, and “the ESA’s primary goal is to preserve the ability of natural populations to survive in the wild,” Trout Unlimited v. Lohn, 559 F.3d 946, 957 (9th Cir. 2009).

27. Section 10 of the ESA 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, i.e., recovery, 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.

28. An experimental population deemed essential is entitled to a broad array of the ESA’s substantive protections, but a nonessential experimental population is afforded a lesser degree of protection. 16 U.S.C. § 1539(j)(2)(C). Specifically, a nonessential experimental population is treated as a species proposed to be listed, rather than a listed species, for purposes of the ESA’s Section 7 consultation process and safeguards against jeopardy, and is not eligible for designation of critical habitat under ESA Section 4. Id. 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 a species’ reintroduction.

29. 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. Id. 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).

30. As the foregoing discussion demonstrates, the ultimate legal litmus test for any ESA section 10(j) regulation is whether it provides for and facilitates the recovery of the affected species. As this Court has stated, “conservation and recovery are at the heart of Section 10(j).” Ctr. for Biological Diversity, 2018 WL 1586651, at *5.

II. The National Environmental Policy Act

31. NEPA “is our basic national charter for protection of the environment.” 40 C.F.R. § 1500.1(a).¹ 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), & 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); Kleppe v. Sierra Club, 427 U.S. 390, 410 n. 21 (1976) (citation omitted). 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.

32. 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] decision-makers and the public of the

¹ This Complaint cites to the 1978 NEPA regulations, which govern the Service’s environmental review in this case. See NEPA Regulations, 43 Fed. Reg. 55,978 (Nov. 29, 1978); FWS, Final Supp. Emtl. Impact Statement, Proposed Revision to the Regulations for the Nonessential Experimental Population of the Mexican Wolf, at 13 (May 2022) (“Final SEIS”) (“The [Final SEIS] is a supplement to the 2014 [final EIS], and therefore as an ongoing action begun before September 14, 2020, is prepared consistent with the 1978, as amended, National Environmental Policy Act regulations at 40 CFR 1500-1508.”) (citation omitted); see also 40 C.F.R. § 1506.13 (“An agency may apply the regulations in this subchapter to ongoing activities and environmental documents begun before September 14, 2020.”) (emphasis added).

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.

33. 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.” *Id.* § 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 government decisions are well informed and that the public has information that allows it to question, understand, and, if necessary, challenge the proposal being considered by the agency.

34. Agencies must also “[u]se 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.

35. 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). An agency must prepare a supplemental EIS in several circumstances, including where the agency “makes substantial changes to the proposed action that are relevant to environmental concerns.” Id. § 1502.9(c)(1)(i). A supplemental EIS must undergo the same two-stage process. See id. § 1502.9(c)(4).

III. The Administrative Procedure Act

36. 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. §§ 701–06.

37. Upon review of agency action, the court shall “hold unlawful and set aside action . . . 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

38. This case concerns a renewed effort by FWS to elevate a negotiated political solution over the best available scientific evidence in establishing a management framework to provide for the recovery of the Mexican wolf. For more than a decade, leading scientists have been advising FWS on how to achieve long-term recovery for this subspecies. Experts have advised that a metapopulation of wolves—consisting of at least three separate but interconnected Mexican wolf populations of equal size—is essential for Mexican wolf recovery. Experts have also repeatedly counseled a more aggressive approach to releasing genetically valuable “effective migrants”—formerly captive wolves that successfully reproduce in the wild population—to rehabilitate the wild population’s compromised genetic integrity, as well as safeguards against killing or removal of those genetically valuable wolves. Yet the Service has repeatedly declined to follow the best scientific guidance to achieve long-term Mexican wolf recovery in deference to political pressure from state wildlife officials and the livestock industry—including most recently in the challenged Revised 10(j) Rule.

I. The Mexican Gray Wolf Reintroduction Program Under ESA Section 10(j)

39. 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. Mexican gray wolves historically inhabited Mexico and the southwestern United States, including portions of Arizona, New Mexico, and Texas.

40. At the behest of the livestock industry, the U.S. Bureau of Biological Survey 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.

41. 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 and included in the captive breeding program. 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.

42. In 1998, in response to a settlement agreement with conservation groups, and 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 what was then called the Blue Range Wolf

Recovery Area (BRWRA) in east-central Arizona and west-central New Mexico.² See Final Rule, Endangered and Threatened Wildlife and Plants; Establishment of a Nonessential Experimental Population of the Mexican Gray Wolf in Arizona and New Mexico, 63 Fed. Reg. 1752 (Jan. 12, 1998); 16 U.S.C. § 1539(j).

43. While the reintroduction program has been beset with numerous problems—including many of FWS’s own making—the wild population has grown in recent years. As of 2021, a minimum of 196 wild wolves inhabited the Mexican Wolf Experimental Population Area.

44. However, the wild population is neither viable nor self-sustaining. To the contrary, the population faces numerous unresolved threats that leave the future of Mexican wolf recovery in jeopardy.

II. Threats to the Mexican Wolf

a. Genetic Problems

45. FWS itself acknowledges that “[g]ene diversity in the [wild Mexican wolf] population remains low and has the potential to result in inbreeding depression and other genetic threats.” FWS, Final Supp. Env’tl. Impact Statement, Proposed Revision to the Regulations for the Nonessential Experimental Population of the Mexican Wolf, at 12 (May 2022) (“Final SEIS”). The genetic challenges to Mexican gray wolf recovery originated from the small number of individuals that remained in existence when

² The 2015 10(j) Rule discontinued “Blue Range Wolf Recovery Area” as a geographic designation, and in its place established three management “zones” within the Mexican Wolf Experimental Population Area. See 80 Fed. Reg. 2512, 2520 (Jan. 16, 2015). The Revised 10(j) Rule challenged in this case continues that scheme.

conservation efforts for this subspecies began. As FWS explained in 2014, “[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).” Final Environmental Impact Statement (“FEIS”) (2014), Ch. 1 at 4.

46. 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. 35,664, 35,704 (June 13, 2013). 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.

47. Unfortunately, despite the captive breeding facilities managing 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. FWS has reported that, “[a]s of 2017, the captive population has retained approximately 83% of the gene diversity of the founders, which is lower than the recommended retention of 90% for most captive breeding programs.” FWS, Biological Report for the Mexican Wolf, at 26 (2017)

(citation omitted). The “genetically depauperate” state of the captive population is attributable to the small number of founder wolves, whose “resultant low gene diversity . . . with which to build a captive population have been a concern since the beginning of recovery efforts . . . and remain a concern today.” Id. (citations omitted).

48. The wild population is in even worse genetic shape than the captive population. Today, the founder genome equivalent of the wild population is only 2.1. See FWS, Mexican Wolf Experimental Population Area Initial Release and Translocation Proposal for 2022, at 2 (2022). This means that, although all wild Mexican wolves descend from seven individuals, this population retains the genetic material of only approximately two individual founders. This level of founder genome equivalents is lower than that of any other reintroduced endangered species in the United States, except perhaps for the black-footed ferret. Further, as of 2022, wolves in the wild population remain, on average, approximately as related to one another as full siblings. In recent years, therefore, inbreeding depression has posed a significant threat to wild population viability. Scientific studies have demonstrated that inbreeding impacts Mexican wolf fecundity by increasing the odds that a pair fails to produce any offspring or by reducing the size of those litters that are produced.

49. Moreover, the population’s recent growth without significant genetic rehabilitation is counterproductive for genetic health: the Service admits that “releases from captivity can improve gene diversity more quickly when the recipient population is smaller,” and genetic diversity must be improved “in the near term” because “it will be more difficult to improve gene diversity and alleviate genetic threats at larger population

sizes.” Id. at 12. A simple example underscores this point: it would take 20 wolves released into a population of 200 wolves to have the same genetic impact as 10 wolves released into a population of 100 wolves, given other factors are equivalent.

50. Currently, the Service manages a supplemental feeding program that mitigates – and conceals the extent of – inbreeding impacts on the wild population. Through this program, FWS provides food caches “to localize [wild wolves’] movements to an area and decrease the likelihood of depredation behavior of nearby livestock.” Final SEIS at 222–23. FWS has recently been providing supplemental feeding to approximately 70 percent of breeding pairs in the wild Mexican wolf population to reduce conflicts with livestock operations within the wolves’ territory. Experts have demonstrated that this supplemental feeding masks the effects of inbreeding depression on wolf reproduction by providing extra nutrition that helps to offset the reproductive impacts otherwise threatened by inbreeding. Of course, the feeding program also obscures the threat to wolves posed by livestock operations in the midst of their habitat, as unfed wolves would likely become involved in a greater number of livestock conflicts and face killing or removal actions to remedy such conflicts. Indeed, reducing such conflicts and associated wolf mortality is the point of the feeding program, but feeding does nothing to resolve the underlying threat of wolf mortality that will spring back into place if feeding is reduced or discontinued. Moreover, widespread feeding is not consistent with the ESA’s recovery objective for a self-sustaining population in the wild.

51. Because the captive population is more genetically diverse than the wild population, one of the main ways the Service tries to foster greater genetic diversity in the

wild population is by releasing genetically valuable captive wolves. To this end, since 2014, the Service has engaged in the practice of “cross-fostering” Mexican wolves. Cross-fostering refers to the placement of captive-born wolf pups into wild dens, where they are substituted for or added to similarly aged pups of the wild pair. Cross-fostering is just one of numerous techniques to perform initial releases: the Service can also release captive adults or sub-adults individually, as pairs with or without pups, or as multigenerational packs. Of these methods, FWS has been using cross-fostering as its “primary release strategy” because it is considered more acceptable to local interests and because the agency considers its initial cross-fostering attempts successful. However, the practice presents numerous challenges. As FWS admits, successful cross-fostering “depends on complex coordination of logistics between captive facilities and the wild population.” FWS, Mexican Wolf Experimental Population Area, Initial Release and Translocation Proposal for 2018, at 5. Specifically,

[c]ross-fostering requires a series of specific events to occur simultaneously (e.g. packs den in Zones 1 or 2 in the MWEPA, both the donor and wild packs have pups within ten days of each other, the cross-foster event occurs within the first 14 days of life, wild pack den sites are located within 10 days of whelping, it is logistically feasible to transport the donor pups to the wild den, etc.). Thus, we are limited in the number of opportunities to cross-foster within a whelping season, and we cannot specify individual recipient or donor packs until the time that key information is available.

Id. at 7. Further, while released adult wolves can immediately breed and thereby impart their genetic material to the wild population, cross-fostered pups must survive to reproductive maturity to be capable of providing this benefit. Cross-fostering, therefore,

is both more logistically complex and less efficient than other means of increasing genetic diversity in the wild population.

b. Excessive Removals

52. The genetic impediments to recovery described above are exacerbated by extremely high levels of Mexican gray wolf taking and removal from the wild. One of the reasons FWS originally 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. 1,752, 1,754 (Jan. 12, 1998). 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, in the 24 years since the Service’s initial “nonessential” designation, this management flexibility has not yielded a successful reintroduction program. Instead, the fate of the reintroduced population remains precarious.

53. Since reintroduction began, removal of Mexican gray wolves from the wild, whether by agency action or illegal killing by members of the public, has exacted a heavy toll on the wild population. FWS authorized and/or carried out the removals of 206 Mexican gray wolves from the reintroduced population between 1998 and 2019. The

wolves removed by FWS have included genetically valuable individuals that could have improved the genetic diversity of the wild population had they not been removed.

c. Wolves' Inability to Roam

54. 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.

55. Since reintroduction began, FWS has constrained the wild population to a limited geography in Arizona and New Mexico. Following the 1998 reintroduction, FWS did not permit wolves to establish territories wholly outside the original BRWRA boundary. When wolves attempted to establish territories outside this ecologically arbitrary boundary, FWS captured and relocated them. 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.

56. If wolves are not allowed to disperse more widely, it is highly unlikely that a viable, self-sustaining population will ever be established. Leading experts assigned by FWS to a Mexican wolf recovery team advised in 2012 that recovery of the species would require at least three separate, but connected, populations of Mexican wolves in the wild, totaling at least 750 wolves. 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 between 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 in the U.S. as one small, isolated, and genetically threatened population, with no genetic connectivity to an even-smaller reintroduced population in Mexico.

57. A 2014 publication in the peer-reviewed scientific literature demonstrated that the southwestern United States has three areas with long-term capacity to support populations of several hundred wolves each. These three areas, each of which contains a large, core area of undeveloped public lands subject to conservation mandates, are in eastern Arizona and western New Mexico (i.e., Blue Range, the location of the current wild population), northern Arizona and southern Utah (Grand Canyon), and northern New Mexico and southern Colorado (Southern Rockies). Nevertheless, FWS's management has prevented Mexican wolves from establishing new populations in the Grand Canyon and Southern Rockies areas. FWS has maintained this geographical limitation largely at the behest of state game officials who wish to avoid wolf predation on local elk and deer populations that generate hunting-related activity providing revenue to state coffers. See Letter, Arizona state game agency to "concerned conservationists" (Sept. 30, 2014) (stating that Arizona game agency's "primary focus" regarding Mexican wolf reintroduction has been to protect wildlife with an emphasis on ungulate species such as elk and deer); Email from Arizona state wildlife official to FWS (May 10, 2013)

(“Revenues from sale of [hunting] tags is critically important to financing the operations of state conservation[.]”).

III. The Illegitimate 2015 10(j) Rule

58. When FWS undertook to promulgate a new 10(j) management rule for the Mexican wolf population in 2015, it did not resolve these problems but rather perpetuated or even compounded them. After fourteen years of inaction in the face of expert recommendations to improve the reintroduction program, FWS finally commenced a formal rulemaking to revise the original 1998 management program for the wild population only when spurred by litigation from Plaintiff Center for Biological Diversity.

59. In the course of that rulemaking, the Service entered into discussions with officials from the Arizona Game and Fish Department (“AZGFD”) regarding the terms of the management revisions. 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 wild, native ungulate (i.e., hoofed mammals, particularly deer and elk) populations based on AZGFD’s determination, and limit the westward dispersal of Mexican gray wolves to shield elk herds from natural predation. FWS acknowledged in a 2014 email that the “[l]ack of a cap is a deal breaker for [AZGFD],” but nonetheless felt a population cap would be “difficult for the Service” to accept. Email from John Oakleaf, FWS, to Jim DeVos, AZGFD (Aug. 26, 2014).

60. In the end, however, the Service promulgated a 2015 10(j) Rule that acceded to AZGFD’s terms. Among other things, the 2015 10(j) Rule provided that: FWS would manage a single experimental population of Mexican gray wolves capped at 300 to

325 individuals; FWS would seek to integrate only one to two effective migrants per generation from the captive population to the reintroduced population; FWS would authorize more permits for the otherwise prohibited “taking” of Mexican gray wolves; and FWS would authorize the taking of Mexican wolves if FWS concurred with an AZGFD determination that they were having an “unacceptable impact” on wild ungulate herds. None of the 2015 10(j) Rule’s new taking authorizations included any safeguard to prevent removal of genetically valuable wolves needed to rehabilitate the depleted genetic integrity of the wild population. Further, although the 2015 10(j) Rule expanded the wild population’s range from the original geographic region established for the 1998 reintroduction to encompass a broader Mexican Wolf Experimental Population Area, the 2015 10(j) Rule still imposed a northern boundary on the population of highway I-40 in northern Arizona and New Mexico. This boundary cut off wolf access to the Grand Canyon and Southern Rockies regions that scientific evidence had identified as essential for establishment of the Mexican wolf metapopulation needed to recover the species. If wolves crossed this I-40 boundary, the 2015 10(j) Rule’s management framework required that they would be captured and returned to the MWEPA.

IV. Judicial Invalidation of the 2015 10(j) Rule

61. Following FWS’s promulgation of the 2015 10(j) Rule, Plaintiffs Center for Biological Diversity and Defenders of Wildlife challenged the rule in this Court. On March 31, 2018, this Court held that the 2015 10(j) Rule violated the ESA by “fail[ing] to further the conservation of the Mexican wolf.” Ctr. for Biological Diversity, 2018 WL 1586651, at *13. The Court concluded that “the 2015 rule only provides for the survival

of the species in the short term and therefore does not further recovery for the purposes of Section 10(j),” and that, “by failing to provide for the population’s genetic health, FWS has actively imperiled the long-term viability of the species in the wild.” Id.

62. In particular, the Court deemed unlawful the 2015 10(j) Rule’s provisions for a “single, isolated population of 300-325 wolves” with only one to two effective migrants per generation. Id. at 14. The Court criticized FWS for “misinterpret[ing]” the findings of several scientific studies “which it had relied upon” to support its population and effective migration provisions. The Court explained, “[s]pecifically, the population size and effective migration rate that was selected for the [2015 10(j) Rule] fails to account for the fact that the Blue Range population is not connected to a metapopulation and suffers from a higher degree of interrelatedness than is assumed in those studies.” Id. As the Court observed, the scientists upon whom FWS purported to rely had concluded that, “when [those] circumstances are factored in,” “the effective migration rate and population size in the 2015 rule are insufficient to ensure the long-term viability of the species.” Id. The Court therefore held that the Service’s judgment regarding the adequacy of those provisions was not entitled to deference.

63. The Court also held that the “expanded take provisions” of the 2015 10(j) Rule “[did] not contain adequate protection for the loss of genetically valuable wolves.” Id. at 15. The Court pointed out that “FWS [had] repeatedly recognized that one of the chief threats to the species is loss of genetic diversity, . . . yet the expanded take provisions lack protections for loss of genetic diversity.” Id. Further, the Court held, the Service’s justification for those provisions did not evidence consideration of the ESA

requirement that the issuance of taking permits would “not operate to the disadvantage” of the Mexican wolf, or of “the ESA’s conservation purpose.” Id. (citation omitted).

64. The Court further observed that other provisions of the 2015 10(j) Rule did not remedy the rule’s myopic focus on short-term survival rather than long-term recovery and, to the contrary, “threaten to compound the problem.” Id. at 14 n.13. The Court stated:

[A]lthough FWS acknowledges that territory north of I-40 will likely be required for future recovery and recognized the importance of natural dispersal and expanding the species’ range, it nevertheless imposed a hard limit on dispersal north of I-40. Any wolves that venture outside the MWEPA will be captured and returned. The agency again relied on the limited scope of the rule to justify this provision, stating that the purpose of the rule is to improve the effectiveness of the reintroduction project and citing to the recovery plan as the likely means of addressing the insufficient geographic range that is provided by the present rule.

Id.

65. The Court remanded the 2015 10(j) Rule to the Service to correct these errors, and ultimately imposed a remand deadline of July 1, 2022.

V. Promulgation of the Revised 10(j) Rule

66. FWS released a proposed revision of its 2015 10(j) Rule on October 29, 2021. Based on a Mexican Wolf Recovery Plan adopted by the agency in 2017, FWS abandoned any effort to pay even lip service to the objective of establishing a Mexican wolf metapopulation for recovery purposes. Instead, the agency proposed to manage for a single, isolated population of greater than or equal to 320 wolves in Arizona and New Mexico. FWS characterized this target population level as an objective rather than a cap. Under the agency’s 2017 recovery vision, this population would be supplemented only by

a single, unconnected small population of Mexican wolves that is being re-established in northwest Mexico. Thus, no metapopulation would be established.

67. Regarding a genetic objective, FWS's proposed rule abandoned the agency's former "effective migrant" metric and called for establishing a new target aiming for a sufficient number of releases of wolves from the captive population into the wild population to result in at least 22 released wolves surviving to breeding age—a goal that the agency expected to accomplish by 2030. The agency explained that it expected achievement of this goal would impart approximately 90 percent of the gene diversity available in the captive population into the wild population. Notably, however, FWS's genetic objective did not require that any of the 22 released wolves actually reproduce successfully in the wild, and thereby actually contribute their greater genetic vigor to the wild population. Nor did the new genetic objective call for actually measuring the genetic characteristics of the wild population to determine whether and, if so, to what extent FWS's release program was contributing to its genetic vitality. Accordingly, under FWS's genetic objective, the agency could declare that its genetic conservation—i.e., recovery—goal for the Mexican wolf was achieved even if release of 22 wolves under its auspices left the population in extreme genetic peril.

68. Regarding provisions for the taking of Mexican wolves, FWS proposed to safeguard against the loss of genetically valuable wolves by restricting the use of specified take provisions until FWS meets its genetic objective of 22 released wolves surviving to breeding age. However, under the agency's proposed approach, the Service could still authorize takings in a given year if permitted takings the previous year did not

include the lethal taking of any released wolf that would have counted toward the genetic objective. This provision thus protected against lethal taking of a genetically valuable wolf in consecutive years, but offered nothing to prevent lethal taking of genetically valuable wolves every other year, indefinitely. Further, under FWS's proposal, the temporary restrictions on the taking provisions would be contingent upon the achievement of the genetic objective which, as discussed above, fails to require actual reproduction of released wolves to remedy the wild population's genetic impoverishment.

69. While FWS's proposed 10(j) revision offered these measures in purported response to the Court's rejection of the 2015 10(j) Rule, it offered no response at all to the Court's critique of the 2015 framework's I-40 boundary on Mexican wolf dispersal. Nor did FWS even acknowledge that critique. Rather, it merely asserted that "[t]he boundaries of the MWEPA are consistent with the recovery strategy established in the revised recovery plan, which states that we will continue to focus on one large Mexican wolf population south of I-40 in Arizona and New Mexico in the United States." Proposed Rule, Endangered and Threatened Wildlife and Plants; Revision to the Nonessential Experimental Population of the Mexican Wolf, 86 Fed. Reg. 59,953, 59,963 (Oct. 29, 2021).

70. In choosing to rely exclusively on the 2017 Mexican Wolf Recovery Plan to dismiss concerns related to its unlawful 2015 management framework, FWS ignored an admonition that this Court issued to the agency in 2019 concerning the relationship between its recovery planning and 10(j) management rulemaking obligations under the

ESA. In the course of resolving arguments concerning remedial issues relating to the 2015 10(j) Rule, this Court stated:

Whatever the force of a recovery plan under the ESA, the 10(j) rule must “further the conservation of [the] species” and release of an experimental population must be determined using the best scientific and commercial data available. 16 U.S.C. § 1539(j)(2)(A); 50 C.F.R. § 17.81(b). As previously stated by this Court, “the substance or terms of future recovery actions, do not relieve FWS of its obligations under Section 10(j).”

Order, Ctr. for Biological Diversity v. Zinke, Nos. CV-15-00019-TUC-JGZ, slip op. at 16-17 n.8 (Mar. 29, 2019) (citation omitted). Moreover, by the time FWS issued its proposed revision of the 10(j) rule in October 2021, FWS’s exclusive reliance on the 2017 Mexican Wolf Recovery Plan to frame its management proposals was even more tenuous because that plan had been challenged in this Court by, among others, Plaintiffs in this case and been deemed, in part, unlawful. See Ctr. for Biological Diversity v. Haaland, 562 F. Supp. 3d 68 (D. Ariz. 2021). This Court therefore remanded the 2017 recovery plan to the Service. Id. at 87. As of this filing, the legal controversy concerning the validity of the 2017 Mexican Wolf Recovery Plan, including a challenge to the legitimacy of its scientific underpinnings, continues before the U.S. Court of Appeals for the Ninth Circuit. FWS disregarded the ongoing controversy over the 2017 recovery plan in framing its proposed revision of the 10(j) management rule.

71. FWS ignored other important warning signs as well. As discussed, FWS based its proposal for a revised 10(j) management approach on the recovery objectives established in the 2017 Mexican Wolf Recovery Plan. That plan, in turn, founded its recovery objectives on a population viability modeling study known as the Miller (2017)

analysis. Essentially, FWS proposed to adopt a management framework that the Miller (2017) analysis calculated would yield a 90 percent likelihood of persistence of the wild Mexican wolf population over a 100-year period. However, in 2019, a group of five eminent scientists led by Dr. Carlos Carroll—upon whose work FWS had previously relied extensively in assessing Mexican wolf conservation needs, see Ctr. for Biological Diversity, 2018 WL 1586651, at *14 (discussing FWS reliance on Carroll)—published a study in the peer-reviewed scientific literature that extensively called into question the methodology and conclusions of the Miller (2017) population viability analysis upon which FWS relied. See Carlos Carroll, et al., Biological and Sociopolitical Sources of Uncertainty in Population Viability Analysis for Endangered Species Recovery Planning, Scientific Reports (July 2019) (“Carroll, et al. (2019)”).

72. The Carroll, et al. (2019) paper pointed out that the Miller (2017) study’s conclusions concerning persistence of the wild Mexican wolf population were based on specific methodological approaches and assumptions about Mexican wolf mortality, reproduction, and survival that were either not justified by the scientific evidence or were otherwise not appropriately employed by FWS as a template for a new Mexican wolf management framework. The issues raised by Carroll, et al. (2019) included, among others, the following:

- A. Miller (2017)’s assumptions concerning wolf reproduction did not adequately address the impact of the FWS supplemental feeding program in masking the impacts of inbreeding on reproduction, even though such impacts would become evident if supplemental feeding were substantially

limited or discontinued in the future, as would be necessary to achieve a self-sustaining population. In other words, the Miller (2017) conclusion that FWS's proposed management framework would yield a 90 percent likelihood of maintaining the wild Mexican wolf population over 100 years assumed a level of reproduction that would be unlikely to be sustained without continuation of supplemental feeding that is antithetical to the ESA's objective of recovery in the wild.

- B. Miller (2017)'s conclusion that adequate genetic rehabilitation of the wild population would be achieved by releasing 22 captive wolves that survived to breeding age was based on specific assumptions about the pedigrees of released individuals. However, "[b]ecause the pedigree of individuals actually released into the wild will not closely match the pedigrees of individuals projected to be released in the simulations, the actual genetic contribution of released wolves is unlikely to closely match results simulated in the [Miller (2017)] model." Carroll, et al. (2019), at 6.
- C. Miller (2017)'s use of a metric providing for a 90 percent chance of Mexican wolf population persistence after 100 years allows for a 10 percent extinction risk threshold. Carroll, et al. (2019) surveyed FWS recovery plans that employed quantitative risk thresholds and found that the vast majority (73 percent) used a more precautionary 5 percent extinction threshold, and that the 10 percent extinction risk allowed by the Miller (2017) analysis was highly unusual for recovery plans focused on

vertebrate species, especially large mammals. FWS's choice to utilize a 10 percent extinction risk threshold for the Mexican wolf conservation program was based on policy objectives that allowed for less protective population and genetic targets for recovery rather than a scientifically derived recovery objective.

D. Miller (2017)'s modeling sets an objective to ensure genetic diversity within the wild population equivalent to 90 percent of the diversity that the captive population would retain in 100 years. This varies from typical genetic recovery goals for imperiled species, which seek to sustain a specified level of the genetic diversity of a population's founders, or at least a specified level of its current genetic diversity. Instead of pegging its genetic target to the captive Mexican wolf population's founder or current genetic diversity, Miller (2017) calculated its genetic target to convey to the wild population 90 percent of the genetic diversity that the captive population would hold at a point 100 years in the future—even though the genetic diversity of the captive Mexican wolf population is declining at a rate of 0.6-0.7 percent each year. By weakening the genetic recovery target for the wild Mexican wolf population in this manner, Miller (2017) was able to conclude that fewer releases and a smaller population level would achieve it.

E. FWS's reliance on the Miller (2017) conclusions appeared to be driven largely by the agency's desire to align its recovery program with state-

driven political objectives, rather than a precautionary approach to Mexican wolf recovery criteria based on the best available science. “The criteria developed in the 2017 wolf plan, although purportedly drawn from [the Miller (2017) population viability analysis (“PVA”)] results, match the wolf population threshold [i.e., population cap] previously negotiated between the FWS and state agencies based primarily on socioeconomic concerns. To produce congruence between PVA output and this negotiated agreement on a politically acceptable wolf population size, the 2017 PVA needed to opt for a suite of parameter values that provides relatively optimistic outcomes in terms of species viability, but runs a higher risk of underpredicting extinction probability. Parameter uncertainty should suggest the need for a precautionary approach to devising criteria, rather than a license to select from within the range of plausible parameter values to give results congruent with policy preferences.” Carroll, et al. (2019), at 8.

73. Carroll and other scientists, along with members of the public, reiterated these concerns in comments submitted to FWS regarding the agency’s proposed 10(j) rule revision. Scientists also objected to FWS’s proposed genetic objective of 22 released wolves surviving to breeding age on the basis that it did not require actual reproductive success of released wolves in the wild and thus could be achieved without yielding any meaningful improvement in the genetic integrity of the wild Mexican wolf population.

74. Notwithstanding these objections and criticisms, including those published in the peer-reviewed scientific literature, FWS did not modify its proposed approach in response to the points raised by scientists or the public. Nor did FWS even undertake to meaningfully consider the objections and criticisms it received or to explore alternative management approaches that might address them.

75. FWS's final supplemental environmental impact statement for the Revised 10(j) Rule, issued in May 2022, did not discuss the Carroll, et al. (2019) study in its environmental analysis at all. Instead, the agency addressed Carroll, et al. (2019) only in responding to public comments that cited the study, and then only to sidestep the thrust of Carroll, et al. (2019)'s critique. For instance, in response to a comment pointing out Carroll, et al. (2019)'s demonstration that the Miller (2017) population viability analysis erred by discounting the impacts of supplemental feeding on wolf reproduction, FWS stated that "[t]he Service does not provide food caches to mask the deleterious effects of genetic issues," Final SEIS at 223—as though Carroll, et al. (2019) were questioning the agency's motivation for supplemental feeding rather than its reliance on a population viability analysis that failed to consider the key role that supplemental feeding played in masking the otherwise deleterious effects of inbreeding. This evasion is emblematic of FWS's failure to grapple with the substance of cogent scientific critiques in analyzing the environmental impact of the Revised 10(j) Rule.

76. FWS's failure to grapple with key scientific issues extended to the range of alternative management approaches considered in the agency's final supplemental environmental impact statement. FWS considered only three management alternatives:

(1) the agency’s proposed Revised 10(j) Rule; (2) a variation from FWS’s proposed Revised 10(j) Rule that retained the unlawful taking provisions from the 2015 10(j) Rule; and (3) the unlawful 2015 10(j) Rule. Thus, under FWS’s range of alternatives, only its proposed Revised 10(j) Rule omitted provisions previously held unlawful by this Court. In particular, FWS considered no alternative establishing a Mexican wolf metapopulation for recovery purposes, setting higher population and genetic targets in recognition of the influence of supplemental feeding on modeling projections, and/or adopting a genetic objective requiring actual reproductive success of released wolves—despite the emphasis placed on these and related issues in the scientific community’s response to the agency’s 10(j) management proposals.

77. Further, despite this Court’s criticism of the 2015 management framework’s establishment of an I-40 boundary on Mexican wolf dispersal, FWS considered no management alternative that would modify that boundary. FWS claimed it eliminated any such alternative from consideration “because it does not promote flexibility in the management of Mexican wolves in the MWEPA in making decisions related to the take and removal of Mexican wolves to allow for consideration of social or economic impacts within the biological context of advancing recovery.” Final SEIS at 18. Yet this Court has specifically instructed FWS that considerations of “management flexibility” may not “displace the ESA’s broader conservation purpose” under ESA section 10(j). Ctr. for Biological Diversity, 2018 WL 1586651, at *16. FWS further sought to justify omitting consideration of any alternative adjusting the I-40 boundary because “it is outside the scope of revisions necessary to respond to the March 31, 2018,

Court Order,” Final SEIS at 19, but this assertion ignores the March 2018 ruling’s explicit questioning of the 2015 10(j) Rule’s “hard limit on dispersal north of I-40.” Ctr. for Biological Diversity, 2018 WL 1586651, at *14 n.13. Thus, FWS’s excuses for refusing to consider any alternative to modify the I-40 boundary fly in the face of this Court’s prior rulings.

78. FWS’s final Revised 10(j) Rule, issued on July 1, 2022, reflected the agency’s entrenched commitment to its proposed management program. The rule carried forward and finalized the three central elements of FWS’s proposed rule: (1) an objective for a single, isolated population averaging greater than or equal to 320 wolves in Arizona and New Mexico; (2) a genetic objective calling for a sufficient number of releases from captivity into the MWEPA to result in at least 22 released wolves surviving to breeding age; and (3) temporary restrictions on certain provisions for taking Mexican wolves until the agency’s genetic objective has been achieved. FWS promulgated the final Revised 10(j) Rule with an effective date of August 1, 2022.

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

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

80. 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, 1508.7, 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.

81. Here, in the environmental analysis set forth in the final supplemental environmental impact statement for the Revised 10(j) Rule, FWS failed to take a “hard look” and ensure the scientific integrity of its discussions and analyses. The agency failed to examine or rationally respond to the objections and criticisms raised in the peer-reviewed scientific literature by Carroll, et al. (2019) and related comments raised by scientists during the public comment process regarding the Revised 10(j) Rule. These objections, criticisms, and comments demonstrated that the Miller (2017) analysis, upon which FWS relied to conclude that its proposed management framework would yield a 90 percent likelihood of Mexican wolf population persistence over 100 years, incorporated flawed assumptions that were not consistent with the best available scientific evidence or the ESA’s objective for recovering a self-sustaining population in the wild. These objections, criticisms, and comments thus went to the heart of the scientific justification for FWS’s proposed management framework, but FWS failed to meaningfully examine or respond to them.

82. FWS violated NEPA by failing to take a hard look at the impacts of its proposed action, by relying on incorrect assumptions and data, and by failing to ensure the scientific integrity of the discussions and analyses in its final supplemental

environmental impact statement for the Revised 10(j) Rule. Accordingly, the final supplemental environmental impact statement and Revised 10(j) Rule are arbitrary, capricious, and contrary to law in violation of NEPA.

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

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

84. NEPA requires that agencies proposing major Federal actions significantly affecting the quality of the human environment 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.” Nat. Res. Def. Council v. U.S. Forest Serv., 421 F.3d 797, 813 (9th Cir. 2005) (quotations omitted).

85. The reasonableness of an agency’s range of alternatives “is to some degree circumscribed by the scope of the statement of ‘purpose and need’” for the agency’s action set forth in the environmental impact statement. Envtl. Def. Ctr. v. Bureau of

Ocean Energy Mgmt., 36 F.4th 850, 876 (9th Cir. 2022) (quotations and citation omitted). “Agencies enjoy a good deal of discretion in framing the ‘purpose and need’” of an environmental impact statement, “but the statement cannot unreasonably narrow the agency’s consideration of alternatives so that the outcome is preordained.” Id. (quotations and citation omitted).

86. Here, FWS’s supplemental environmental impact statement for the Revised 10(j) Rule examined in detail only three options: FWS’s preferred approach and two alternative approaches that could not have lawfully been implemented consistent with this Court’s decision in Center for Biological Diversity v. Jewell, 2018 WL 1586651. FWS failed to examine even one viable alternative management approach beyond its proposed action. In particular, FWS failed to examine any alternative that would have responded to objections and criticisms raised in the peer-reviewed, published scientific literature and in public comments by pursuing more protective and precautionary management objectives, such as establishing a Mexican wolf metapopulation for recovery purposes, setting higher population and genetic targets in recognition of the influence of supplemental feeding and other factors on modeling projections, and/or adopting a genetic objective requiring actual reproductive success of released wolves, among other things. Nor did FWS examine any alternative proposing to modify the I-40 boundary on wolf dispersal, despite this Court’s explicit critique of the 2015 10(j) Rule’s “hard limit on dispersal north of I-40.” Ctr. for Biological Diversity, 2018 WL 1586651, at *14 n.13.

87. To the extent FWS sought to preclude consideration of such alternatives through articulation of a narrowly crafted statement of purpose and need in the final supplemental environmental impact statement for the Revised 10(j) Rule, this action too failed to meet NEPA's mandates. FWS identified its purpose and need for the Revised 10(j) Rule as being "to ensure compliance with the March 31, 2018, remand of our 2015 10(j) rule by the District Court of Arizona," but then characterized that remand ruling as requiring the agency "to redress" only the "narrowly defined issues" that FWS chose to address in its final rule. Final SEIS at 9-10. The agency's statement of purpose and need mischaracterized this Court's March 2018 ruling that required the 10(j) remand process and otherwise unreasonably narrowed FWS's consideration of alternatives so that the outcome was preordained.

88. FWS violated NEPA by failing to rigorously explore and objectively evaluate reasonable alternatives in its final supplemental environmental impact statement for the Revised 10(j) Rule, and by crafting an erroneous and unreasonably narrow purpose and need statement that contributed to this unlawful outcome. Accordingly, the final supplemental environmental impact statement and Revised 10(j) Rule are arbitrary, capricious, and contrary to law in violation of NEPA.

REQUEST FOR RELIEF

THEREFORE, Plaintiffs respectfully request that this Court:

1. Declare that FWS acted arbitrarily and capriciously and violated NEPA in issuing the final supplemental environmental impact statement for the Revised 10(j) Rule and promulgating the Revised 10(j) Rule;
2. Set aside and remand the challenged final supplemental environmental impact statement and Revised 10(j) Rule in whole or in part, as requested by Plaintiffs;
3. Award Plaintiffs temporary, preliminary, and/or permanent injunctive relief as necessary to remedy FWS's unlawful actions;
4. Award Plaintiffs their reasonable fees, costs, and expenses, including attorneys' fees, associated with this litigation; and
5. Grant Plaintiffs such further and additional relief as the Court may deem just and proper.

DATED this July 11, 2022.

/s/ Timothy J. Preso

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