



September 10, 2014

By E-Mail and Certified Mail

Sally Jewell, Secretary
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Washington, D.C. 20240

Daniel M. Ashe, Director
U.S. Fish and Wildlife Service
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**RE: Notice of Intent to Sue to Remedy Violation of the Endangered Species Act in
Regard to the United States Fish and Wildlife Service's Failure to Produce a
Legally Valid Recovery Plan for the Mexican Gray Wolf (*Canis lupus baileyi*)**

Dear Secretary Jewell and Director Ashe:

On behalf of Defenders of Wildlife, the Center for Biological Diversity, former Mexican Wolf Recovery Coordinator David R. Parsons, the Wolf Conservation Center, and the Endangered Wolf Center, I am writing to provide you with notice that the United States Fish and Wildlife Service ("FWS" or "Service") is in violation of section 4(f) of the Endangered Species Act ("ESA"), 16 U.S.C. § 1533(f), with regard to its failure to prepare and implement a legally valid recovery plan for the endangered Mexican gray wolf (*Canis lupus baileyi*) 38 years after the subspecies' initial listing under the Act.

As FWS has repeatedly acknowledged, the ongoing Mexican gray wolf reintroduction program, as currently managed, is inadequate to recover the species, and the Service's sole nod toward recovery planning for the Mexican gray wolf to date—a 1982 document styled as a "Recovery Plan"—admittedly was incomplete, intended for only short-term application, and "did not contain objective and measurable recovery criteria for delisting as required by section 4(f)(1) of the [ESA]." 78 Fed. Reg. 35,719, 35,726 (June 13, 2013). Accordingly, the Service has never to date fulfilled the ESA's basic requirement that FWS "shall develop and implement" a legally compliant recovery plan for the Mexican gray wolf. 16 U.S.C. § 1533(f)(1). Lacking the guidance that would be provided by a legitimate recovery plan, FWS's management actions have failed to ensure recovery of the Mexican gray wolf and at times even have impeded, rather than promoted, Mexican gray wolf recovery. Although FWS has suggested certain useful reforms in its recently proposed revisions to the ESA section 10(j) management regulation for the reintroduced Mexican gray wolf population in Arizona and New Mexico, the Service's overall approach to Mexican gray wolf management—even if that 10(j) rule is finalized as proposed—remains inadequate to recover this

critically imperiled subspecies. Only by developing and implementing a comprehensive and legally compliant recovery plan reflecting the best available scientific information can FWS salvage the floundering Mexican gray wolf reintroduction program, avert extinction of this iconic species, and restore this irreplaceable part of our wild natural heritage to the American landscape.

Pursuant to section 11(g)(2)(C) of the ESA, this letter provides you with notice that, unless within 60 days of receipt of this letter FWS finalizes and implements a legally valid recovery plan for the Mexican gray wolf as required by the ESA, we intend to challenge the Service's unlawful conduct in federal district court.

The Endangered Species Act

The 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). It was enacted to “provide a program for the conservation of ... endangered species and threatened species” and to “provide a means by which the ecosystems upon which endangered species and threatened species depend may be conserved.” 16 U.S.C. § 1531(b). To receive the full protections of the Act, a species must first be listed by the Secretary of the Interior as “endangered” or “threatened” pursuant to ESA section 4. See 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).

The ESA establishes a congressional policy that “all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of [the ESA].” Id. § 1531(c). “Conservation,” under the ESA, means to recover such species from their imperiled status. See id. § 1532(3). To effectuate this policy, once a species is listed as “endangered” or “threatened,” the ESA requires that “[t]he Secretary shall develop and implement plans (hereinafter in this subsection referred to as ‘recovery plans’) for the conservation and survival of [such listed] species ..., unless he finds that such a plan will not promote the conservation of the species.” Id. § 1533(f). Each recovery plan must include, to the maximum extent practicable, “a description of such site-specific management actions as may be necessary to achieve the plan’s goal for the conservation and survival of the species; objective, measurable criteria which, when met, would result in a determination, in accordance with the provisions of this section, that the species be removed from the list; and estimates of the time required and the cost to carry out those measures needed to achieve the plan’s goal and to achieve intermediate steps toward that goal.” Id. § 1533(f)(1)(B)(i)-(iii). FWS’s internal recovery planning guidelines provide that final recovery plans “should be completed within 2.5 years of listing.” National Marine Fisheries Service & U.S. Fish and Wildlife Service, Interim Endangered and Threatened Species Recovery Planning Guidance, Version 1.3 (June 2010), at 1.5-2 [hereinafter Recovery Planning Guidance].

The Endangered Mexican Gray Wolf

The Mexican gray wolf—the “lobo” of Southwestern lore—is the most genetically distinct lineage of wolves in the Western Hemisphere, and one of the most endangered mammals in North America. Carlos Carroll et al., Developing Metapopulation Connectivity Criteria from Genetic and Habitat Data to Recover the Endangered Mexican Wolf, 28 *Conservation Biology* 76, 77 (2014). Mexican gray wolves historically inhabited Mexico and the southwestern United States, including portions of Arizona, New Mexico, and Texas. U.S. Fish & Wildlife Service, Mexican Wolf Conservation Assessment (2010), at 7 [hereinafter 2010 Conservation Assessment]; Mexican Wolf Recovery Program, Southwestern Regional Office, U.S. Fish & Wildlife Service, 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, Chapter 1 and 2 (Aug. 2, 2013), at 3 [hereinafter Preliminary Draft EIS]. It appears that the subspecies also ranged into southern Utah and southern Colorado. Preliminary Draft EIS, at 3.

Like wolves elsewhere across the United States, this smaller, desert-adapted wolf of Mexico and the American Southwest suffered near-extirpation as a result of a U.S. government predator-extermination program that began in 1915 and expanded in 1950 into the Republic of Mexico. See Michael J. Robinson, Predatory Bureaucracy: The Extermination of Wolves and the Transformation of the West (Univ. Press of Colorado, 2005), at 128-132, 170, 291 and 298-299; see also U.S. Fish & Wildlife Service, Draft Environmental Impact Statement for the Proposed Revision to the Nonessential Experimental Population of the Mexican Wolf (*Canis lupus baileyi*) (July 16, 2014), at App. G, p.9 [hereinafter DEIS]. However, following passage of the 1973 Endangered Species Act, 16 U.S.C. § 1531 *et seq.*, the FWS in 1976 listed the Mexican gray wolf as an endangered subspecies, an action that triggered the legal protections of the ESA. 41 Fed. Reg. 17,736 (Apr. 28, 1976). FWS subsumed this listing into a nationwide, species-level listing of the gray wolf (*C. lupus*) in 1978, although the Service retained its commitment to conserving the Mexican gray wolf as a separate subspecies. 43 Fed. Reg. 9607 (Mar. 9, 1978); *id.* at 9609. By the mid-1980s, no Mexican gray wolves were known to survive in the United States and five of the last known wild Mexican gray wolves had been captured in Mexico and placed in a captive breeding program. All of the Mexican gray wolves alive today come from a founding stock of only seven captive individuals.

In 1998, FWS released eleven captive-reared Mexican gray wolves under ESA section 10(j) as a “nonessential experimental” population into the approximately 6,850-square mile Blue Range Wolf Recovery Area (“BRWRA”) in east-central Arizona and west-central New Mexico. After a near thirty-year absence from the landscape, Mexican gray wolves existed in the wild within the United States once again.

Unfortunately, more than a decade after the reintroduction of Mexican gray wolves to the American Southwest, the reintroduced population, according to FWS, is “not thriving” and remains “at risk of failure.” 2010 Conservation Assessment, at 14, 62, 78. The original, stopgap objective of the reintroduction effort, as per the inadequate 1982 “Recovery Plan” document and the 1996 Final Environmental Impact Statement concerning the reintroduction, was to achieve “a

viable, self-sustaining population of at least 100 wild Mexican wolves” by 2006.¹ Mexican Wolf Recovery Team, Mexican Wolf Recovery Plan (1982), at 23 [hereinafter 1982 Plan]; U.S. Fish & Wildlife Service, Reintroduction of the Mexican Wolf within its Historic Range in the Southwestern United States: Final Environmental Impact Statement (Nov. 1996), at 1-1 [hereinafter 1996 FEIS]. To date, the reintroduction program has limped along well short of that target. At the end of 2013, the wild Mexican gray wolf population numbered only 83 individuals. DEIS, App. G, at 10. Several factors have contributed to the limited success of the reintroduction effort, many of which 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 introduced and can reside, excessively removed wolves from the wild, and failed to effectively respond to excessive illegal mortality of wolves. Underlying each of these factors, and contributing to them, is FWS’s steadfast refusal to complete a legitimate, legally compliant recovery plan for the Mexican gray wolf that would provide a blueprint for the actions that are needed, and the actions that must be prohibited, to successfully bring this species back from the brink of extinction.

Genetic Issues

The genetic challenges to Mexican gray wolf recovery largely stem from the small number of individual wolves that remained in existence when conservation efforts for this subspecies began, but FWS has compounded the resulting genetic problems by failing to take actions that are necessary to capitalize on the Mexican gray wolf’s remaining genetic diversity. 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. See Philip W. Hedrick et al., Genetic Evaluation of the Three Captive Mexican Wolf Lineages, 16 *Zoo Biology* 47, 48, 67-68 (1997) (noting that the Mexican Wolf Species Survival Group, at its July 1995 annual meeting, accepted the authors’ recommendation that wolves from all three lineages be considered certified Mexican gray wolves based on genetic, morphological, and pedigree analysis). 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. Interagency Field Team, Mexican Wolf Blue Range Reintroduction Project 5-Year Review: Technical Component (Dec. 31, 2005), at TC-2.

The extremely small number of founders in the original captive breeding population in concert with the low number of animals that FWS has subsequently released from captivity and FWS’s failure to allow the population to grow rapidly in the wild have raised significant concerns about the long-term genetic health of the subspecies. See Carroll et al. (2014), at 77. More specifically, “[t]he captive breeding population is estimated to retain only 3.01 founder

¹ The target date for achieving the 100-wolf objective in the 1996 FEIS was 2005. However, this assumed a start date for the reintroduction of 1997. Since the reintroduction did not commence until 1998, the target date for achieving the 100-wolf objective has been adjusted to reflect the one-year delay.

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. 35,664, 35,705 (June 13, 2013). 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 genetic material of only approximately three individual founders.² The wild population is in even worse genetic shape. 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 outbred full siblings are related to each other.” DEIS, Ch. 1, at 19. FWS itself has concluded that, “[w]ithout substantial management action to improve the genetic composition of the [wild] population, inbreeding will accumulate and ... alleles will be lost much faster than in the captive population.” 78 Fed. Reg. at 35,706; DEIS, Ch. 1, at 20.

The social structure of wolf packs makes genetic problems flowing from inbreeding all the more likely. Generally speaking, each wolf pack has only one breeding male and female that reproduce annually. Thus, the effective gene pool of the reintroduced population is even smaller than the overall population size would suggest because not all reproductively mature individuals are breeding. See 2010 Conservation Assessment, at 65; DEIS, Ch. 1, at 21. At the end of 2013, FWS counted only five breeding pairs of Mexican gray wolves in Arizona and New Mexico. U.S. Fish & Wildlife Service, Mexican Wolf Blue Range Reintroduction Project Statistics: Minimum Population Estimate, Minimum Breeding Pair Estimate and Population Estimate Numbers Depicted Per State within the Blue Range Wolf Recovery Area, 1998 to 2013, at http://www.fws.gov/southwest/es/mexicanwolf/pdf/MW_popcount_web.pdf. This contrasts starkly with expectations: the 1996 final EIS on reintroduction projected 18 breeding pairs by 2006.³ 1996 FEIS, at 2-8, table 2-2.

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 pack size. 78 Fed. Reg. at 35,706; Carroll et al. (2014), at 77; 2010 Conservation Assessment at 59-60, 67; Richard J. Fredrickson et al., Genetic Rescue and Inbreeding Depression in Mexican Wolves, 274 Proc. Royal Society B 2365, 2370 (2007); R. Wayne & P. Hedrick, Genetics and Wolf Conservation in the American West: Lessons and Challenges, 107 *Heredity* 16, 18 (2011); Letter from Dominick Dellasala, Ph.D., President, North America Section, Society for Conservation Biology & Edward J. Heske, Ph.D., President, American Society of Mammalogists, to Public Comments Processing, Division of Policy and Directive Management, United States Fish and Wildlife Service, Attn: FWS-HQ-ES-2013-0073 and FWS-R2-ES-2013-0056, Re: Proposed Revision to the Nonessential Experimental Population of the

² For an in-depth discussion of the concept of “founder genome equivalents,” see Robert C. Lacy, Analysis of Founder Representation in Pedigrees: Founder Equivalents and Founder Genome Equivalents, 8 *Zoo Biology* 111 (1989).

³ Again, the time frame has been adjusted to reflect the one-year delay in the reintroduction effort. See note 1, supra.

Mexican Wolf (Dec. 16, 2013), at 2. Ultimately, “this 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. See also DEIS, Ch. 1 at 19 (“Higher 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.”).

In order to maximize genetic potential and prospects for recovery, FWS must move quickly to reestablish a viable, self-sustaining wild Mexican gray wolf population. See 2010 Conservation Assessment, at 78 (“The 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”). Nevertheless, the agency has failed to do so. As FWS has recognized, “[o]ver the entire 16 year course of the Reintroduction Project we have not been able to conduct the number of initial releases ... sufficient to establish or maintain adequate genetic variation in the experimental population.” DEIS, Ch. 1, at 20. “Without an increase in the number of initial releases and without a better release success rate, the number of effective migrants per generation needed to improve the genetic fitness of the Mexican wolf experimental population will not be achieved and the negative effects of inbreeding depression will continue—potentially ... result[ing] in additional reduction in genetic variation, leading to decreased fitness and lower survival rates and ultimately causing an extinction vortex for the experimental population of Mexican wolves.” Id. Ch. 1, at 23-24.

To avoid this outcome, 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. See 78 Fed. Reg. at 35,706. 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. 1752, 1755 (Jan. 12, 1998). In short, time is of the essence for the survival, conservation, and recovery of the Mexican gray wolf based on genetic issues alone, and FWS’s management actions to date have not provided a response commensurate with the urgent nature of this problem.

Excessive Removals & Insufficient Releases

The genetic impediments to recovery described above are being exacerbated by extremely high levels of Mexican gray wolf take and removal from the wild. Under the ESA, to “take” means to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” 16 U.S.C. § 1532(19). 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. Such “[m]anagement flexibility” was deemed 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 improved the likelihood of success of either the reintroduction program or the subspecies’ recovery prospects. Instead, it has contributed to the reintroduction effort’s current teetering on the brink of failure. Since reintroduction began, agency removal of Mexican gray wolves from the wild has exacted a heavy toll on the Blue Range population. Overall, FWS has engaged in 160 removals of Mexican gray wolves from the reintroduced population since 1998. U.S. Fish & Wildlife Service, Mexican Wolf Blue Range Reintroduction Project Statistics: Causes of Mexican Wolf Management Removals from the Blue Range Population, Arizona and New Mexico, 1998-2013 (Dec. 31, 2013), at http://www.fws.gov/southwest/es/mexicanwolf/pdf/MW_removal_causes_web.pdf. Of these, FWS has killed or ordered the killing of 12 wolves⁴ and officially consigned 24 once-wild wolves to permanent captivity. *DEIS*, Ch. 1, at 14-15; U.S. Fish & Wildlife Service, Outcomes of Mexican Wolf Management Removals from the Blue Range Population, Arizona and New Mexico, 1998-2013 (Dec. 31, 2013). The remaining 124 instances of removal were “temporary removals,” meaning those wolves remained theoretically eligible for translocation. *Id.* However, some temporarily removed wolves, “while eligible for translocation, have been removed from consideration for future release.” *Id.* Such removal of Mexican gray wolves from the wild “ha[s] 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 [for depredation, nuisance, and boundary violation] ... as a contributing factor hindering the population’s growth.” *Id.* at 55.

Wolves that are killed or 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 import of individual wolves in authorizing take or removal. 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] 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. The Service has not developed any specific protocols to promote genetic fitness in the population in response to recent research and professional

⁴ Another wolf was shot by the U.S. Department of Agriculture’s Wildlife Service without authorization by FWS. Nineteen additional wolves have died due from capture-related stressors.

recommendations.

See id. at 60. For example, in November 2007, FWS removed the alpha male from the Aspen pack—then the most genetically valuable pack in the reintroduced population. John Dougherty, Last Chance for the Lobo, High Country News (Dec. 24, 2007). In December of that year, it removed the Aspen pack’s alpha female, a yearling female, and several pups. Id.

In addition to killing and removing Mexican gray wolves, including genetically valuable animals, FWS has drastically reduced releases (of captive wolves) and translocations (of captured-but-release-eligible wolves) since 2006. Only three new wolves from the captive-breeding pool have been released into the wild since 2008. According to FWS’s own 2010 progress report, “lack of appropriate initial releases and successful translocations from captivity” contributed to “[f]ewer known adult wolves available for pair formation.” U.S. Fish & Wildlife Service, Mexican Wolf Recovery Program: Progress Report #13, Reporting Period: January 1-December 31, 2010, at 29. As a result, new genetic material is not being infused into the reintroduced population, further imperiling Mexican gray wolf recovery.

Compounding the problems of excessive take and removal and insufficient releases of Mexican gray wolves by FWS are extremely high levels of illegal wolf mortality by members of the public. These high levels of illegal mortality call into question FWS’s fundamental assertion that without the management flexibility afforded to the agency through “[d]esignation of the released wolves as [a] nonessential experimental [population] . . . , intentional illegal killing of wolves likely would harm the prospects for success.” 63 Fed. Reg. at 1755. In fact, even with the agency’s desired management flexibility, intentional, illegal wolf killing has undermined the reintroduction program. From 1998-2013, there were 55 documented illegal killings of Mexican gray wolves, and such killings make up the majority of wolf mortalities since the reintroduction program began. 2010 Conservation Assessment at 57-58. Further, available information indicates that at least 50 additional wolves—including, in some instances, pairs of wolves repeatedly located together—have simply “disappeared,” and many of these are presumed to have been illegally killed. Such mortalities, in conjunction with agency removals, have proven demographically destabilizing and genetically deleterious and hinder the reintroduced Mexican gray wolf population’s prospects for success.

Wolves’ Inability to Roam

Even for the 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, which prevents the Service from most effectively staging releases and growing the population. See DEIS, Ch. 1, at 23. For example, FWS has imposed a requirement that captive Mexican gray wolves that are released into the wild for the first time may be released into only a small “primary recovery zone” within the BRWRA. This primary recovery zone constitutes only 16 percent of the BRWRA as a whole. 78 Fed. Reg. at 35,727. This restriction has constrained the number of genetically valuable wolves that can be released because it is neither safe nor effective to release wolves into already-occupied habitat. See Anthony Povilitis et al., The Bureaucratically Imperiled Mexican Wolf, 20 Conservation Biology 942, 942 (2006) (noting that this restriction has impeded FWS’s “ability to release wolves where

they are most needed, that is, in high-quality habitat lacking wolves or for replacement of lost mates and genetic enhancement”); DEIS, Ch. 1, at 16 (“Revisions to the 1998 Final Rule ... are needed because ... under the current regulations we will not be able to achieve the necessary population growth, distribution and recruitment that would contribute to the persistence of, and improve the genetic variation within, the experimental population”); id. App. F, at 1 (“we have observed additive negative population effects of the regulations that restrict initial release, and require boundary removals, and result in increased management related to removal of nuisance or depredate wolves”).

In addition, to date, FWS has not permitted wolves to establish territories wholly outside the BRWRA boundary. See 63 Fed. Reg. at 1771. When wolves have attempted to establish territories wholly beyond this ecologically arbitrary boundary, FWS seeks to capture and relocate them.⁵ This boundary restriction thus “does not allow for natural dispersal movements from the BRWRA or occupation of the [larger Mexican Wolf Experimental Population Area (“MWEPA”)].” 78 Fed. Reg. at 35,727. This limitation has 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. If wolves are not allowed to disperse more widely, it is highly unlikely that a viable, self-sustaining population will ever be established. In fact, recent research suggests that “viability of the existing wild population is uncertain unless additional populations can be created and linked by dispersal.” Carlos Carroll et al. (2014), at 84 (emphasis added).

Indeed, as experts have long counseled and as FWS has acknowledged, 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 its historic range.” DEIS, Ch. 2, at 6, citing Carlos Carroll et al., Spatial Analysis of Restoration Potential and Population Viability of the Wolf (*Canis lupus*) in the Southwestern United States and Northern Mexico (July 12, 2004), at 6.⁶ 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. See Carroll et al. (2014), at 84. A well-connected metapopulation is especially important for the recovery of the Mexican gray wolf, which right now exists in the United States as a small, isolated, and genetically threatened population

⁵ Some captures, however, prove permanent (e.g., the November 9, 2001 death of wolf M580 after a several-mile helicopter pursuit to remove him for wide dispersal movements outside of the recovery area).

⁶ Note that the DEIS cites a publication “Carroll et al. 2006.” However, this publication does not appear in the literature cited. The same quotation can be found in the 2004 Carroll et al. publication cited here and included in the electronic Appendix.

suffering from myriad unfavorable demographic rates.⁷

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. 1982 Plan, at 32. 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,” 1996 FEIS, at 1-1, and in the 2014 DEIS, where FWS stated that “[t]he dispersal of Mexican wolves between subpopulations may be an important part of recovery.” DEIS, Ch. 1, at 31. Despite these admissions, FWS has failed to undertake the planning necessary to establish further subpopulations or a metapopulation. Most recently, FWS again refused to contemplate the establishment of additional populations in its DEIS for a revised ESA section 10(j) rule for the reintroduced Mexican gray wolf population, stating that “[e]stablishment of additional Mexican wolf populations outside of the MWEPA will be considered as part of recovery planning, but full recovery is beyond the scope of this EIS.”⁸ Id. Ch. 2, at 7.

FWS’s current management of the reintroduced Mexican gray wolf population not only fails to prescribe a metapopulation approach to recovery, it effectively precludes the establishment of a metapopulation. Specifically, the agency’s extant policy of removing wolves that attempt to establish territories wholly outside the BRWRA impedes the natural establishment of any other population in the region. The policy further prevents the Blue Range population from potentially connecting with other reintroduced populations, including the population recently reintroduced in Mexico. FWS’s refusal to permit wolves to freely range outside the BRWRA, in conjunction with the agency’s refusal to establish a metapopulation, are actively hindering—if not outright precluding—the recovery of a viable, self-sustaining, wild Mexican gray wolf population.

Lack of a Legally Compliant Recovery Plan

All of the problems outlined above result from the absence of a legitimate agency blueprint for Mexican gray wolf recovery. Accordingly, they could be resolved through the production and implementation of a scientifically based and legally valid recovery plan to guide and drive Mexican gray wolf management decisions, such as scheduled releases to promote genetic diversity, necessary limitations on wolf removals by FWS and the public, and delineation of appropriate geographic areas to facilitate wolf recovery. In many respects, the primary underlying impediment to Mexican gray wolf recovery has been, and continues to be, the lack of such a plan—a fact FWS has repeatedly acknowledged. The stopgap approach to Mexican gray

⁷ There is a nascent reintroduction program in Mexico, which only this year resulted in wild reproduction (a single litter of five pups). See Megan Gannon, First Litter of Wild Wolf Pups Born in Mexico (July 22, 2014), at <http://news.discovery.com/animals/endangered-species/first-litter-of-wild-wolf-pups-born-in-mexico-140722.htm>.

⁸ FWS similarly limited the scope of its 1996 Environmental Impact Statement. See 1996 FEIS, at 1-1 (“Full recovery is beyond the scope of this EIS.”).

wolf conservation outlined by FWS in 1982 was “far from complete,” and was intended to provide guidance only through September 30, 1984. 1982 Plan, at 1, 20. Yet almost exactly 30 years after this expiration date, and despite FWS’s continued recognition of the need for a valid and effective recovery plan, the Service still has developed nothing beyond its stopgap approach to guide its Mexican gray wolf conservation efforts.

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.” Recovery Planning Guidance, at 1.1-1. 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 established criteria that would signify full recovery and support eventual delisting. See 16 U.S.C. § 1533(f)(1)(B)(ii). The 1982 document was drafted without ESA-required recovery and delisting criteria because, at the time of the plan’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. at 35,726. 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 plan in the maintenance 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.” 1982 Plan, at 12-13, 23. Despite its stopgap nature, however, that 100-wolf measure has, to date, continued to serve as the agency’s sole guidepost for Mexican gray wolf recovery efforts. See 2010 Conservation Assessment, at 7 (aside from the 100-wolf goal, “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”).

Yet the 100-wolf goal 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 BRWRA can neither be considered ‘viable’ nor ‘self-sustaining’—regardless of whether it grows to a number of ‘at least 100.’” DEIS, Ch. 1, at 17. Moving beyond the stopgap 100-wolf goal is crucial for Mexican gray wolf recovery. Indeed, as recently as July 2014, the Service recognized this and again forecasted the need for a legitimate recovery plan for this subspecies. The July 2014 DEIS states that “[e]stablishment of a numerical objective for the size of the experimental population of Mexican wolves may be an important part of recovery planning in which the experimental population would function as a subpopulation to a viable and self-sustaining metapopulation of wolves.” Id. Ch. 2, at 10. “However,” the DEIS continues, “full recovery is beyond the scope of this EIS and setting this population objective now would be premature and would therefore not contribute to the achievement of our objective to further the conservation of the Mexican wolf by improving the effectiveness of the reintroduction project in managing the experimental population.” Id. Thus, while the 2014 DEIS and associated proposed rule offer limited improvement over the status quo’s 100-wolf goal (see discussion infra), they are no substitute for a recovery plan.

FWS is aware of this fact, and has convened three recovery teams since 1982 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. 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 recovery planning was indefinitely suspended in 2005, allegedly due to ongoing litigation. 2010 Conservation Assessment, at 3. FWS initiated the most recent recovery planning effort in 2010 at the direction of the current director of the Service’s Southwest Region. 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. The Science and Planning Subgroup included prominent wolf biologists, a population biologist, a conservation biologist, a carnivore biologist, a geneticist, and a human dimensions expert. 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. See U.S. Fish & Wildlife Service, Draft Mexican Wolf Revised Recovery Plan (May 7, 2012), at 101 [hereinafter 2012 Draft Recovery Plan]. However, within two weeks of the release of a May 7, 2012 draft recovery plan containing this recommendation, the FWS’s Southwest Regional Director cancelled an upcoming recovery team meeting and effectively suspended the recovery planning process. See id.; e-mail from Benjamin Tuggle, to Sherry Barrett & Tracy Melbhiess, Message to the MWRT from RD Re: June Meeting (May 18, 2012).

In light of these developments, FWS’s attempts to explain the status of Mexican gray wolf recovery planning have met with a skeptical response from the recovery team itself. Just over a year after FWS’s May 2012 suspension of the planning process, several members of the Stakeholder Subteam⁹ of the Mexican Wolf Recovery Team wrote a letter to the FWS Southwest Regional Director regarding the ongoing delay in recovery planning. See Letter from Eva Lee Sargent, Ph.D., et al., to Benjamin Tuggle, Ph.D., Regional Director, Southwest Region, U.S. Fish & Wildlife Service (July 23, 2013). They stated their “understanding that the science subteam has continued to meet, has completed an exhaustive amount of modeling, and has now prepared a third draft of the recovery plan.” Id. The members requested that a meeting be scheduled where the Science and Planning Subgroup could provide “a full and complete briefing ... on their work.” Id. FWS responded with a letter in September 2013 stating that, in effect, another meeting was not possible in the near-term because the science subgroup was “currently finalizing Vortex [modeling] simulations to support recovery criteria and the modeling appendix to the draft recovery plan.” Letter from Joy E. Nicholopoulos, Acting Regional Director, U.S. Fish & Wildlife Service, to Eva Lee Sargent, Ph.D., Director, Southwest Program, Defenders of Wildlife (Sept. 11, 2013). Upon seeing this letter, however, one of the Science and Planning Subgroup members expressed “surprise ... [at] the Service’s recent response ... to Dr. Sargent’s

⁹ The Mexican Wolf Recovery Team includes four subteams: the Stakeholder Liaisons Subgroup, Science and Planning Subgroup, Tribal Liaisons Subgroup, and Agency Liaisons Subgroup. U.S. Fish & Wildlife Service, Mexican Wolf Recovery Planning (May 15, 2014), <http://www.fws.gov/southwest/es/mexicanwolf/MWRP.cfm>. The stakeholder subteam is made up of representatives from conservation organizations, county organizations, and the outfitting/guiding and cattle industries. See 2012 Draft Recovery Plan, at 5 (list of participants on most recent stakeholder group).

query about the status of Mexican wolf recovery planning.” E-mail from Mike Phillips, to Sherry Barrett et al. (Sept. 15, 2014). According to Science and Planning Subgroup member Michael Phillips, a prominent wolf biologist, the Science and Planning Subteam had “been ready since immediately following the Director’s briefing in March to complete work to finalize our recommendations to the Service concerning recovery criteria and recovery region.” Id. Nevertheless, FWS has not scheduled the meeting requested by the Stakeholder Subteam members or otherwise moved forward with completion of the suspended recovery planning process. In short, recovery planning for the Mexican gray wolf appears to be indefinitely suspended.

2013 & 2014 Proposed Rules

Although FWS has not acted on the Science and Planning Subteam’s apparent willingness and readiness to finalize its recommendations for Mexican gray wolf recovery planning, the agency has recently advanced other administrative actions concerning Mexican gray wolf management. Specifically, as referenced supra, FWS recently moved forward with a proposed rulemaking to revise the existing nonessential experimental population designation of the Mexican gray wolf and several provisions of the associated 10(j) rule—without the guidance of a scientifically sound and legally valid recovery plan. See 78 Fed. Reg. 35,719 (June 13, 2013); 79 Fed. Reg. 43,358 (July 25, 2014). While offering some prospect of improvement over the status quo, this proposed rulemaking still fails to take the essential steps needed to facilitate Mexican gray wolf recovery and in some respects would continue to institutionalize the management shortcomings that have hindered Mexican gray wolf recovery to date.

On June 13, 2013, FWS issued two proposed rules relating to gray wolves’ status under the ESA. In the first rule, FWS proposed to “remove the gray wolf from the List of Endangered and Threatened Wildlife but to maintain endangered status for the Mexican wolf by listing it as a subspecies.” 78 Fed. Reg. at 35,664. In coordination with this proposed rule, FWS issued a second proposed rule that would “revise the existing nonessential experimental population designation of the Mexican gray wolf (*Canis lupus baileyi*) under section 10(j) of the Endangered Species Act of 1973” and revise, in several respects, the section 10(j) rule itself. 78 Fed. Reg. at 35,719. In response to public comments received on the draft rule and Preliminary Draft EIS, FWS released a revised proposed rule on July 25, 2014. See generally 79 Fed. Reg. 43,358.

In these rulemaking proposals, FWS concluded that it had to modify the 10(j) rule to “help [the agency] enhance the growth, stability, and success of the nonessential experimental population.” Id. at 43,359. However, despite the recommendations to the contrary by FWS’s own hand-picked Science and Planning Subgroup, FWS again proposed restrictions that threaten to prohibit Mexican gray wolves from establishing a metapopulation—an essential element of Mexican gray wolf recovery. Specifically, FWS proposed to remove any Mexican gray wolf “that can be identified as coming from the experimental population that disperse to establish territories in the areas outside the MWEPA,” DEIS, Ch. 1, at 31—including, significantly, any wolves that may attempt to disperse north of Interstate 40. Such wolves would be maintained in captivity, translocated to suitable habitat within the MWEPA, or transferred to Mexico. Id. This restriction threatens to preclude wolves in the Blue Range population from ever naturally

establishing other populations, or connecting with other Mexican gray wolf populations should they be established. The Science and Planning Subgroup specifically identified two regions—the Grand Canyon ecoregion and northern New Mexico/southern Colorado—as having sufficient habitat to host the necessary two additional core populations. See 2012 Draft Recovery Plan, at 49. The restriction on dispersal north of I-40 would both prevent natural recolonization of and dispersal among populations in these areas. By including this provision, the new rule would preclude the establishment of a metapopulation and keep Mexican wolves from recovering. Furthermore, the proposed rule would remove protections from wolves traveling north from Mexico, which currently are protected as fully endangered and not experimental. 79 Fed. Reg. at 43,363. That provision in the proposed rule, and the absence of mandatory proactive measures to prevent depredations, will likely result in management actions blocking connectivity between the BRWRA experimental wolf population and the nascent and vulnerable population in Mexico. While FWS has acknowledged that a metapopulation is critical for recovery and stated that consideration of a metapopulation will be part of the recovery planning process, see DEIS, Ch. 1, at 17, 31, id. Ch. 2, at 6-7, the recovery planning process has been indefinitely suspended for more than two years with no signs of resumption; in the meantime, the Service proposes to continue active obstruction of metapopulation establishment.

FWS also proposes in the new rule to liberalize the already-too-lenient take of reintroduced Mexican gray wolves. See id. App. F, at 5; 79 Fed. Reg. at 43,363. As explained above, even the current level of take has contributed to the ongoing “risk of failure” of the reintroduction program. Further, the take is often conducted without due regard for the genetic significance of the individuals taken—something the reintroduced population can ill afford. To justify liberalizing the take authorization, FWS’s proposed rule relies on the same faulty reasoning the agency relied upon in designating the population as nonessential experimental in the first instance—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.” Preliminary Draft EIS, at 35. However, as the past sixteen years of the Mexican gray wolf reintroduction program have demonstrated, liberal take rules have not led to reduced illegal mortality and enhanced Mexican gray wolf recovery in the wild. Indeed, illegal mortality has been the single largest source of mortality for the reintroduced Mexican gray wolf population. See 2010 Conservation Assessment at 57-58 (noting that illegal shooting of Mexican gray wolves has been the single biggest source of mortality since the reintroduction began, and in some years has resulted in population declines of 10% or more). Further, recent research suggests that FWS has its logic backward, and that broad public authorizations for lethal control of predators, including wolves, is linked to reduced public tolerance for those predators on the landscape. See, e.g., Adrian Treves et al., Longitudinal Analysis of Attitudes Toward Wolves, 27 *Conservation Biology* 315, 320-21 (2013); Adrian Treves & Jeremy Bruskotter, Tolerance for Predatory Wildlife, 344 *Science* 476, 476-77 (2014).

In sum, FWS is proceeding with the pending ESA section 10(j) rulemaking without any of the guidance that a scientifically accurate and legally valid recovery plan would provide. Lacking such guidance, FWS proposes to continue erecting barriers (e.g., precluding the establishment of a metapopulation and allowing excessive take) that will impede the full recovery of the reintroduced Mexican gray wolf population that the Endangered Species Act

requires.

Discussion

FWS's refusal to develop and implement a scientifically grounded and legally valid recovery plan for the Mexican gray wolf violates the plain requirements of the ESA. The ESA mandates that the "Secretary shall develop and implement [recovery] plans ... for the conservation and survival of endangered species and threatened species ... unless he finds that such a plan will not promote the conservation of the species." 16 U.S.C. § 1533(f). Each recovery plan must include, to the maximum extent practicable, "objective, measurable criteria which, when met, would result in a determination, in accordance with the provisions of this section, that the species be removed from the list." *Id.* § 1533(f)(1)(B)(ii). FWS prepared a document styled as a "Recovery Plan" for the Mexican gray wolf in 1982. However, this document—which did not establish objective, measurable criteria for full recovery and eventual delisting as required by section 4(f)(1) of the ESA—was intended to provide guidance only through September 30, 1984. 1982 Plan, at 20. The only substantive guidance provided by this document was to establish a captive breeding program and a "viable, self-sustaining population of at least 100 wild Mexican wolves." FWS has acknowledged that "a single experimental population of Mexican wolves is inadequate for recovery" and that even a population of 100 wolves would be "considered small, genetically impoverished, and significantly below estimates of viability appearing in the scientific literature." DEIS, Ch. 1, at 17, 20-21.

In these circumstances, FWS has violated the ESA's requirement to develop and implement a recovery plan for the Mexican gray wolf. FWS has not made an ESA section 4(f) finding that a legally compliant recovery plan would not promote the conservation of the Mexican gray wolf. To the contrary, FWS "continues to acknowledge the need to develop objective and measurable recovery criteria in a revised recovery plan" for the subspecies. 2010 Conservation Assessment, at 109. See also *id.* at 10 ("failure to develop an up-to-date recovery plan results in inadequate guidance for the reintroduction and recovery effort."); *id.* at 31 ("Objective and measurable recovery criteria are still needed to provide context for the subspecific Mexican wolf reintroduction and recovery effort within remaining gray wolf listed range"). The agency has also found that "[t]hreats hindering the biological progress of the [reintroduced Mexican gray wolf] population and success of the recovery program include ... lack of an up-to-date recovery plan." *Id.* at 78. The longer this threat persists, "the greater the challenges for recovery, particularly as related to genetic fitness and long-term adaptive potential of the [Mexican gray wolf] population." *Id.*

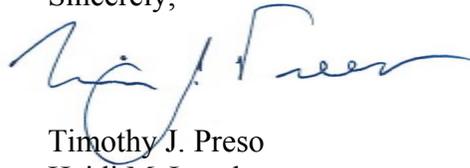
FWS has declared that "it is time to shift the focus of the [Mexican gray wolf] recovery program ... toward pursuit of full recovery." *Id.* at 79. Yet the agency has failed to take the first step required to live up to this hortatory pronouncement—preparation of a scientific blueprint for full recovery. The preparation and implementation of a scientifically sound, legally valid recovery plan would promote the conservation and full recovery of the Mexican gray wolf. Conversely, FWS's continued failure to develop a scientifically sound, legally valid recovery plan threatens to affirmatively impede the conservation and full recovery of the Mexican gray wolf by failing to correct ongoing inadequate management practices and by facilitating FWS's efforts to alter Mexican gray wolf management in a manner that would continue to preclude

essential recovery measures that have been identified by FWS's own scientific recovery teams.

Conclusion

As set forth in this letter, FWS has violated the ESA by failing to produce a scientifically grounded, legally valid recovery plan for the Mexican gray wolf 38 years after the subspecies' initial listing under the ESA, as required by 16 U.S.C. § 1533(f). Unless, within 60 days of its receipt of this letter, FWS remedies this failure, we will institute a legal action in federal district court to challenge the Service's legal violation and to ensure conservation of the Mexican gray wolf as required by the ESA.

Sincerely,

A handwritten signature in blue ink, appearing to read "Timothy J. Preso". The signature is fluid and cursive, with a large initial "T" and "P".

Timothy J. Preso
Heidi McIntosh