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26 IN THE UNITED STATES DISTRICT COURT  
27 FOR THE DISTRICT OF ARIZONA

28 Center for Biological Diversity; Defenders of  
Wildlife; the Endangered Wolf Center; David  
R. Parsons; and the Wolf Conservation Center,

Plaintiffs,

vs.

Ryan Zinke, in his official capacity as  
Secretary of the Interior; United States Fish  
and Wildlife Service; and Amy Lueders, in her  
official capacity as Southwest Regional  
Director of the U.S. Fish and Wildlife Service,

Defendants.

No.

COMPLAINT FOR  
DECLARATORY AND  
INJUNCTIVE RELIEF

## INTRODUCTION

1  
2           1.       This case challenges the U.S. Fish and Wildlife Service’s (“FWS” or “the  
3 Service”) November 29, 2017 Final Mexican Wolf Recovery Plan (“Recovery Plan”).  
4 The Mexican gray wolf (Canis lupus baileyi) is one of the most imperiled mammals in  
5 North America and has been listed as an endangered species under the Endangered  
6 Species Act (“ESA”) since 1976. This “lobo” of Southwestern lore is the most genetically  
7 distinct lineage of wolves in the Western Hemisphere. Like wolves elsewhere across the  
8 United States, this subspecies of wolf of the American Southwest and Mexico was driven  
9 to near extinction as a result of government predator killing in the early to mid-20th  
10 century. Reduced to only seven individuals in a captive breeding program, FWS began  
11 reintroducing Mexican gray wolves into the wild in 1998. As of 2017, only 113 wolves  
12 could be counted in the wild in the United States in a single, genetically-depressed  
13 population in a small area of eastern Arizona and western New Mexico. As of July 2017,  
14 an additional 31 wolves live in a reintroduced population in the Sierra Madre Occidental  
15 region of Mexico. Wolf numbers in the reintroduced populations remain far below the  
16 numbers that experts recommend as necessary to ensure the wolf’s survival and  
17 successful recovery, and the genetic status of the U.S. wild population has deteriorated  
18 markedly since reintroduction 20 years ago.

19  
20           2.       Congress enacted the ESA in 1973 to provide “a means whereby the  
21 ecosystems upon which endangered species and threatened species depend may be  
22 conserved” and “a program for the conservation of such endangered species and  
23 threatened species.” 16 U.S.C. § 1531(b). The Act defines “conservation” to mean “to use  
24 and the use of all methods and procedures which are necessary to bring any endangered  
25 species or threatened species to the point at which the measures provided pursuant to this  
26 chapter are no longer necessary.” Id. § 1532(3). Thus, “the ESA was enacted not merely  
27 to forestall the extinction of species (i.e., promote a species survival), but to allow a  
28

1 species to recover to the point where it may be delisted.” Gifford Pinchot Task Force v.  
2 U.S. Fish & Wildlife Serv., 378 F.3d 1059, 1070 (9th Cir.), amended on other grounds by  
3 387 F.3d 968 (9th Cir. 2004).

4 3. Recovery plans are a central part of meeting the ESA’s species  
5 conservation goals. Under ESA section 4(f)(1), recovery plans must provide for “the  
6 conservation and survival” of threatened and endangered species, and must contain, to  
7 “the maximum extent practicable,” a description of the site-specific management actions  
8 that are needed for conservation and survival of the species, and objective, measurable  
9 criteria that, when met, will result in the determination that a species may be removed  
10 from the endangered and threatened species list. 16 U.S.C. § 1531(f).

11 4. Rather than set the Mexican gray wolf on a course towards recovery,  
12 FWS’s new Recovery Plan for the species arbitrarily and unlawfully sets population and  
13 management targets that are inadequate to ensure the wolf’s conservation and survival.  
14 The Plan and an associated biological report acknowledge the principal threats to  
15 Mexican gray wolf recovery: they face a high level of human-caused mortality; wolf  
16 populations are currently too small and inbred to survive long-term; and wolves need  
17 large areas of suitable habitat to roam and find prey, but much of the wolves’ historic  
18 habitat has been rendered unsuitable due to human and livestock use. But rather than  
19 create a plan to overcome these obstacles to recovery, the Plan: entirely fails to establish  
20 an objective measurable criterion or a site-specific management objective to address  
21 illegal killing; sets population targets that result in a 40% chance that the species will  
22 need to be relisted under the Act; and places the ESA’s recovery onus on a population in  
23 Mexico in an area rife with landowner conflicts, while ignoring large areas of public land  
24 in the United States that could provide suitable habitat. The Court should accordingly  
25 order FWS to comply with the requirements of ESA section 4(f), correct the deficiencies  
26  
27  
28

1 in the Mexican Wolf Recovery Plan, and ensure that the Mexican wolf is actually set on a  
2 course for conservation and survival as the ESA requires.

3 **JURISDICTION AND VENUE**

4 5. This Court has jurisdiction over Plaintiffs’ claims pursuant to 28 U.S.C.  
5 § 1331 (federal question). This Court also has jurisdiction under 16 U.S.C. § 1540(c), (g)  
6 (ESA), or, alternatively, under the Administrative Procedure Act (“APA”), 5 U.S.C.  
7 § 701 et seq. The Court may issue a declaratory judgment and further relief pursuant to  
8 28 U.S.C. §§ 2201-02 and 5 U.S.C. § 706 (APA). Defendants’ sovereign immunity is  
9 waived pursuant to the ESA, 16 U.S.C. § 1540(g), or, alternatively, the APA, 5 U.S.C.  
10 § 702.

11  
12 6. Plaintiffs provided Defendants with notice of Plaintiffs’ intent to sue on  
13 November 29, 2017, as required by 16 U.S.C. § 1540(g)(2). Defendants have not  
14 responded to Plaintiffs’ notice letter.

15 7. Venue is proper in this District pursuant to 16 U.S.C. § 1540(g)(3)(A) and  
16 28 U.S.C. § 1391(e)(1)(B) because a significant part of the subject matter of this action—  
17 the population of the Mexican gray wolf—is located in this District, and a substantial part  
18 of the events or omissions giving rise to Plaintiffs’ claims occurred here. Additionally,  
19 Plaintiff Center for Biological Diversity is headquartered in Tucson, Arizona, and  
20 Plaintiff Defenders of Wildlife conducts much of its work on the Mexican gray wolf from  
21 Tucson, Arizona.

22  
23 8. This case should be assigned to the Tucson Division of this Court because  
24 the Mexican gray wolf occurs within the counties of this Division, FWS management  
25 activities related to the wolf occur within these counties, and Plaintiff Center for  
26 Biological Diversity maintains its main Arizona offices in Tucson. L.R. Civ. 77.1(a), (c).

**PARTIES**

1  
2 9. Plaintiff Center for Biological Diversity (“the Center”) is a nonprofit  
3 organization dedicated to the preservation, protection and restoration of biodiversity,  
4 native species, and ecosystems. The Center was founded in 1989 and is based in Tucson,  
5 Arizona, with offices throughout the country. The Center works through science, law, and  
6 policy to secure a future for all species, great or small, hovering on the brink of  
7 extinction. The Center is actively involved in species and habitat protection issues and  
8 has more than 63,000 members throughout the United States and the world, including  
9 more than 4,500 members in Arizona and New Mexico. The Center has advocated for  
10 recovery of the Mexican gray wolf since the organization’s inception and maintains an  
11 active program to protect the species and reform policies and practices to ensure its  
12 conservation. The Center brings this action on its own institutional behalf and on behalf  
13 of its members. Many of the Center’s members and staff reside in, explore, and enjoy  
14 recreating in Southwestern landscapes, including those occupied by the Mexican gray  
15 wolf.  
16

17 10. Plaintiff Defenders of Wildlife (“Defenders”) is a national nonprofit  
18 conservation organization headquartered in Washington, D.C., with offices throughout  
19 the country. Defenders has more than 393,000 members, including more than 12,000  
20 members in Arizona and New Mexico. Defenders is a science-based advocacy  
21 organization focused on conserving and restoring native species and the habitat upon  
22 which they depend, and has been involved in such efforts since the organization’s  
23 establishment in 1947. Over the last three decades, Defenders has played a leading role in  
24 efforts to recover the Mexican gray wolf in the American Southwest.  
25

26 11. Founded in 1971, Plaintiff Endangered Wolf Center is a non-profit  
27 organization dedicated to preserving and protecting Mexican gray wolves and other  
28 endangered canids through carefully managed breeding, reintroduction, and educational

1 programs. The Endangered Wolf Center, located near St. Louis, Missouri, has been a  
2 cornerstone of FWS's Mexican gray wolf recovery program since its inception. The  
3 Endangered Wolf Center became home to the last Mexican gray wolf female captured in  
4 the wild, and she bore several litters at the facility. In all, more than 170 Mexican gray  
5 wolves have been born at the Endangered Wolf Center, and a number of those wolves  
6 have been released into the wild through FWS's reintroduction program. All Mexican  
7 gray wolves alive today can trace their roots back to the Endangered Wolf Center. The  
8 Endangered Wolf Center also conducts ground-breaking research to help with the  
9 management of this critically imperiled species both within captive breeding facilities  
10 and in the wild.

11  
12 12. Plaintiff David R. Parsons is a professional wildlife biologist. He holds a  
13 Bachelor of Science degree in Fisheries and Wildlife Biology from Iowa State University  
14 and a Master of Science degree in Wildlife Ecology from Oregon State University. A  
15 career wildlife biologist with FWS, Mr. Parsons served as the Service's first Mexican  
16 Wolf Recovery Coordinator from 1990-1999. In that capacity, he led the agency's efforts  
17 to reintroduce the Mexican gray wolf to the American Southwest. Now retired from  
18 FWS, he continues to further large carnivore conservation through his roles as Carnivore  
19 Conservation Biologist at The Rewilding Institute and an advisor to various conservation  
20 organizations on carnivore conservation science and policy.

21  
22 13. Founded in 1996, Plaintiff Wolf Conservation Center is a non-profit  
23 environmental education organization committed to conserving wolf populations in North  
24 America through science-based education programming and participation in federal  
25 Species Survival Plan programs for critically endangered wolf species. As a participant in  
26 the Mexican Wolf Species Survival Plan program, the Wolf Conservation Center strives  
27 to maintain the genetic diversity remaining in the captive Mexican gray wolf population  
28 and serves as one of the few breeding facilities for Mexican gray wolves eligible for

1 release into the wild. Several Mexican gray wolves have been released from the Wolf  
2 Conservation Center facility in South Salem, New York into the Southwest.

3 14. All Plaintiffs have long-standing interests in the survival and recovery of  
4 the Mexican gray wolf. Plaintiffs and their members place a high value on Mexican gray  
5 wolves and recognize that a viable presence of these wolves on the landscape promotes  
6 healthy, functioning ecosystems. Plaintiffs actively seek to protect and recover the  
7 Mexican gray wolf through a wide array of actions including public education, scientific  
8 analysis, advocacy, and, when necessary, litigation. In particular, Plaintiffs previously  
9 successfully challenged Defendants' failure to prepare a recovery plan for the Mexican  
10 gray wolf as required by section 4(f) of the ESA, resulting in a settlement agreement that  
11 FWS would create such a plan by November 2017. Plaintiffs also submitted extensive  
12 comments on the draft recovery plan that FWS prepared to implement that agreement.  
13

14 15. Plaintiffs Endangered Wolf Center and Wolf Conservation Center both  
15 serve as members of the Mexican Wolf Species Survival Plan Program, which is a bi-  
16 national, cooperative, conservation program overseen by the Association of Zoos and  
17 Aquariums to conduct research, public outreach and—most importantly—to breed and  
18 maintain a genetically diverse population for successful reintroduction.

19 16. Plaintiffs and/or their members use public lands in the American  
20 Southwest, including lands that FWS has designated as the Mexican Wolf Experimental  
21 Population Area ("MWEPA"), and lands outside of the MWEPA that contain suitable  
22 habitat for Mexican gray wolves. Plaintiffs enjoy these areas for a wide range of  
23 activities, including hiking, fishing, camping, backpacking, hunting, horseback riding,  
24 bird watching, wildlife watching (including wolf watching), spiritual renewal, and  
25 aesthetic enjoyment. Plaintiffs and/or Plaintiffs' members have viewed and listened to  
26 Mexican gray wolves and found signs of wolf presence in Arizona and New Mexico, and  
27 have planned specific outings in order to search for wolves and their tracks and sign. By  
28

1 adopting a recovery plan that fails to ensure the species' conservation and survival, the  
2 Service's actions will harm Plaintiffs' interests in viewing and listening to wolves and  
3 maintaining a healthy ecosystem. In particular, the absence of a legally-compliant  
4 recovery plan is a direct threat to the success of the missions of Plaintiffs Endangered  
5 Wolf Center and Wolf Conservation Center because recovery cannot take place in  
6 captivity alone; the Mexican gray wolf captive breeding program is not infinitely  
7 sustainable, and is already being threatened by ongoing loss of genetic diversity, aging  
8 wolves, insufficient pen space, and evolutionary 'selection' of inheritable traits that may  
9 enhance captive survival at the expense of those that would enhance survival in the wild.  
10 Accordingly, the legal violations alleged in this complaint cause direct injury to the  
11 aesthetic, conservation, recreational, scientific, educational, and wildlife preservation  
12 interests of the Plaintiffs and their members.  
13

14 17. Plaintiffs' and/or Plaintiffs' members' aesthetic, conservation, recreational,  
15 scientific, educational, and wildlife preservation interests have been, are being and—  
16 unless their requested relief is granted—will continue to be adversely and irreparably  
17 injured by Defendants' failure to comply with federal law. These are actual, concrete  
18 injuries that are traceable to Defendants' conduct and would be redressed by the  
19 requested relief. Plaintiffs have no adequate remedy at law.  
20

21 18. Defendant Ryan Zinke is the United States Secretary of the Interior. In that  
22 capacity, Secretary Zinke has supervisory responsibility over the United States Fish and  
23 Wildlife Service. Defendant Zinke is sued in his official capacity.

24 19. Defendant United States Fish and Wildlife Service is a federal agency  
25 within the United States Department of the Interior. The Service is responsible for  
26 administering the ESA with respect to terrestrial wildlife species and subspecies  
27 including the Mexican gray wolf.  
28





1 existing regulatory mechanisms; or (E) other natural or manmade factors affecting its  
2 continued existence. 16 U.S.C § 1533(a)(1).

3 24. The ESA establishes a congressional policy that “all Federal departments  
4 and agencies shall seek to conserve endangered species and threatened species and shall  
5 utilize their authorities in furtherance of the purposes of” the ESA. 16 U.S.C.  
6 § 1531(c)(1). “Conservation,” under the ESA, means “to use and the use of all methods  
7 and procedures which are necessary to bring any endangered species or threatened  
8 species to the point at which the measures provided pursuant to [the ESA] are no longer  
9 necessary”—i.e., to recover such species from their imperiled status. See id. § 1532(3).  
10 This “conservation”—meaning recovery—mandate permeates the ESA provisions that  
11 apply to the FWS actions addressed in this complaint.  
12

13 25. Reflecting this conservation mandate, once a species is listed as  
14 “endangered” or “threatened,” the ESA requires that “[t]he Secretary shall develop and  
15 implement plans (hereinafter in this subsection referred to as ‘recovery plans’) for the  
16 conservation and survival of [such listed] species . . . , unless he finds that such a plan  
17 will not promote the conservation of the species.” Id. § 1533(f).

18 26. Recovery plans are central to meeting the ESA’s species-recovery goals.  
19 Recovery plans aid species recovery by helping to focus and prioritize funding and  
20 management actions, and they guide other regulatory actions, such as designation of  
21 critical habitat and removal of species from the endangered species list under 16 U.S.C.  
22 § 1533(a)(1) and (a)(3)(A). Further, as a practical matter, the FWS relies on conclusions  
23 reached in the process of recovery planning to guide a variety of important decisions  
24 about the needs of, and impacts to, imperiled wildlife.  
25

26 27. Each recovery plan must include, to the maximum extent practicable, “a  
27 description of such site-specific management actions as may be necessary to achieve the  
28 plan’s goal for the conservation and survival of the species; objective, measurable criteria

1 which, when met, would result in a determination, in accordance with the provisions of  
2 this section, that the species be removed from the list; and estimates of the time required  
3 and the cost to carry out those measures needed to achieve the plan’s goal and to achieve  
4 intermediate steps toward that goal.” Id. § 1533(f)(1)(B)(i)-(iii).

5 28. In designing the “objective, measureable criteria,” FWS “must address each  
6 of the five statutory delisting factors” in 16 U.S.C. § 1533(a), and “measure whether the  
7 threats [to the species] have been ameliorated.” Fund for Animals v. Babbitt, 903 F.  
8 Supp. 96, 111 (D.D.C. 1995), amended, 967 F. Supp. 6 (D.D.C. 1997); see also Defs. of  
9 Wildlife v. Babbitt, 130 F. Supp. 2d 121, 133–34 (D.D.C. 2001). The FWS’s findings in  
10 recovery plans, including population modeling in the plans, must be “based upon the best  
11 scientific evidence available” and FWS must provide “rational reason[s]” for its  
12 decisions. Fund for Animals, 903 F. Supp. at 114.

#### 14 **B. The Administrative Procedure Act**

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

18 30. Upon review of agency action, the court shall “hold unlawful and set aside  
19 actions . . . found to be arbitrary, capricious, an abuse of discretion, or otherwise not in  
20 accordance with the law.” Id. § 706(2). An action is arbitrary and capricious “if the  
21 agency has relied on factors which Congress has not intended it to consider, entirely  
22 failed to consider an important aspect of the problem, offered an explanation for its  
23 decision that runs counter to the evidence before the agency, or is so implausible that it  
24 could not be ascribed to a difference in view or the product of agency expertise.” Motor  
25 Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983). Further,  
26 “the agency must . . . articulate a satisfactory explanation for its action including a  
27  
28

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

### 3 FACTUAL ALLEGATIONS

#### 4 **A. The Mexican Gray Wolf**

5 31. The Mexican gray wolf is one of the most genetically, morphologically,  
6 and ecologically distinct lineages of wolves in the Western Hemisphere. It is believed to  
7 be the only surviving descendant of the first wave of gray wolves to colonize North  
8 America during the Pleistocene Epoch. Mexican gray wolves historically inhabited a  
9 region that today encompasses Mexico and the southwestern United States, including  
10 portions of Arizona, New Mexico, and Texas. They also ranged as far north as southern  
11 Utah and Colorado, where they mixed with other gray wolf subspecies. Although  
12 historical records are incomplete, the FWS hypothesizes that historically Mexican wolves  
13 numbered in the thousands across the United States Southwest and Mexico.  
14

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

21 33. Between 1977 and 1980, five Mexican gray wolves—four males and one  
22 female—were captured in Mexico. These wolves were placed in a captive breeding  
23 program and became known as the “McBride” lineage. Two other already-existing  
24 captive lineages, the “Aragón” and “Ghost Ranch” lineages, were also certified as  
25 genetically pure Mexican gray wolves in 1995. All individuals alive today come from a  
26 founding stock of seven of these captive Mexican gray wolves: three McBride wolves,  
27 two Aragón wolves, and two Ghost Ranch wolves.  
28

1           34. In 1998, FWS released eleven captive-born Mexican gray wolves under  
2 ESA section 10(j) as a nonessential experimental population into east-central Arizona and  
3 west-central New Mexico, in an area south of Interstate 40 labeled the Mexican Wolf  
4 Experimental Population Area (“MWEPA”). See 16 U.S.C. § 1539(j) (the “10(j)”  
5 provision for “experimental” populations); 63 Fed. Reg. 1752 (Jan. 12, 1998) (rule for the  
6 establishment of a 10(j) population of Mexican gray wolves in Arizona and New  
7 Mexico); see also 50 C.F.R. § 17.84(k)(9). As of 2017, approximately 113 Mexican gray  
8 wolves inhabit this area. No Mexican gray wolves are present in the wild in the United  
9 States outside of the MWEPA, and FWS does not allow them to disperse beyond the  
10 MWEPA.  
11

12           35. Mexico began reestablishing a population of Mexican wolves in the Sierra  
13 Madre Occidental region of Mexico in 2011. As of July 2017, approximately 31 Mexican  
14 gray wolves are living in Mexico.

15           36. FWS acknowledges that the two small populations of Mexican gray wolves  
16 in the wild, at their current sizes, “have a high risk of extinction that must be ameliorated  
17 during the recovery process,” and that significant threats to the wolf’s continued survival  
18 exist, including from illegal killing, inbreeding, small population size, and inadequate  
19 habitat. FWS, 2017 Biological Report for the Mexican Wolf (Canis lupus baileyi) 33, 29  
20 (“Biological Report”).  
21

## 22 **B. Threats to the Mexican Gray Wolf’s Continued Existence**

### 23 ***1. Excessive Human-Caused Mortality***

24           37. The biggest threat to wolf survival is human-caused mortality. Seventy  
25 percent of documented Mexican wolf mortalities from 1998 to 2016 were human-caused,  
26 including from shooting, trapping, and vehicular collision. Biological Report at 24.  
27 Wolves are particularly in danger when livestock is present, as ranchers have shot wolves  
28 in the belief that doing so protects their livestock, and FWS has ordered removal or

1 killing of wolves in response to livestock predation. Indeed, the single greatest killer of  
2 wolves is illegal shooting and trapping, which alone makes up more than 50% of  
3 documented Mexican wolf mortalities in the United States. Id.

4 38. Mexican wolf populations are highly sensitive to adult mortality. Thus, as  
5 FWS acknowledges, “[f]or populations to grow or maintain themselves at demographic  
6 recovery targets, mortality rates will need to stay below threshold levels.” Biological  
7 Report at 31. The FWS therefore recognizes that human-caused mortality is “the most  
8 important single source of mortality to address during the recovery process.” Id.

9  
10 **2. Inbreeding**

11 39. The genetic challenges to Mexican gray wolf recovery largely stem from  
12 the small number of individuals that remained in existence when conservation efforts for  
13 this subspecies began. The extremely small number of founders in the captive breeding  
14 population (i.e., the Mexican gray wolves from which all individuals living today  
15 descend) has raised significant concerns about the long-term genetic health of the  
16 Mexican gray wolf subspecies. As FWS explains, the genetic status of the wild  
17 populations is of concern due to “high mean kinship (or, relatedness of individuals to one  
18 another), as well as ongoing loss of gene diversity.” Biological Report at 27.

19 40. Inbreeding was a concern with the McBride lineage, which was founded by  
20 only three individuals that were successfully bred. Indeed, by the mid-1990s, McBride  
21 pups had inbreeding levels similar to offspring from full sibling or parent-offspring pairs.  
22 In 1995, the captive breeding program integrated the Aragón and Ghost Ranch lineages—  
23 both of which were also highly inbred—into the McBride lineage in an attempt to  
24 increase the overall genetic diversity of the founder population. After this integration of  
25 the three lineages, specific breeding protocols and genetic goals were established to  
26 inform Mexican gray wolf pairings.  
27  
28

1           41. Unfortunately, while the captive breeding facilities have more recently  
2 managed the Mexican gray wolf breeding program to preserve as much genetic diversity  
3 as possible, much of the genetic potential of the founding stock has been lost. Biological  
4 Report at 26. Today, “the captive population has retained approximately 83% of the gene  
5 diversity of the founders, which is lower than the recommended retention of 90% for  
6 most captive breeding programs . . . . In its current condition, the population would be  
7 expected to retain 75% gene diversity over 67 years and 73% in 100 years.” Id.

8           42. The wild population is in even worse genetic shape than the captive  
9 population. According to FWS, “[a]s of 2017, the United States population has a retained  
10 gene diversity of 75.48% of the founding population, while the Mexico population has a  
11 retained gene diversity of 73.88%.” Biological Report at 27. “As of 2017, Mexican  
12 wolves in the United States population were on average as related to one another as  
13 siblings.” Id. at 28. As FWS has acknowledged, “[h]igh relatedness is concerning because  
14 of the risk of inbreeding depression (the reduction in fitness associated with inbreeding).  
15 Inbreeding depression may affect traits that reduce population viability, such as  
16 reproduction . . . , survival . . . , or disease resistance.” Id. FWS therefore recognizes that  
17 for populations to contribute to recovery, they must “be sufficiently genetically robust as  
18 to not demonstrate demographic-level impacts from inbreeding depression or other  
19 observable, detrimental impacts.” Id. at 33.

### 20           3. *Small Population Size*

21           43. The extremely small size of the existing Mexican wolf populations presents  
22 a further threat to the species. Conservation biologists have shown that small populations  
23 face a high risk of extinction. Biological Report at 32. As FWS explains, “[i]n small  
24 populations, even those that are growing, random changes in average birth or survival  
25 rates could cause a population decline that would result in extinction. . . . As a population  
26 grows larger and individual events tend to average out, the population becomes less  
27  
28

1 susceptible to extinction from demographic stochasticity [random destructive events] and  
2 is more likely to persist.” Id.

3 44. At their current small sizes, FWS recognizes that “both the MWEPA and  
4 northern Sierra Madre Occidental populations have a high risk of extinction that must be  
5 ameliorated during the recovery process.” Biological Report at 33. Thus, crucial to  
6 recovery planning is identifying a target size of populations large enough to avoid a high  
7 risk of extinction.

8 45. Experts have long counseled that the long-term conservation of the  
9 Mexican gray wolf will depend on establishing a large metapopulation—a group of  
10 populations separated by space but whose members can move between populations or,  
11 put another way, several semi-disjunct populations that become viable in the aggregate.  
12 As a rule, internally well-connected metapopulations can better withstand unfavorable  
13 demographic rates (e.g., birth rate, fertility rate, life expectancy) and catastrophic  
14 environmental events (e.g., wildfire, disease outbreak) than can isolated populations. This  
15 is because connectivity facilitates gene flow as individuals move among populations,  
16 reducing the severity and effects of inbreeding, and because the existence of multiple  
17 populations ensures the species’ persistence and ability to reclaim lost range if a  
18 catastrophe decimates a single population. A well-connected metapopulation is especially  
19 important for the recovery of the Mexican gray wolf, which now exists in the wild as two  
20 small, isolated, and genetically-threatened populations separated by an international  
21 boundary.  
22

#### 23 **4. *Inadequate Habitat***

24 46. Mexican wolves need large blocks of land with low potential for human  
25 conflict so that wolves may roam in family packs, find prey, and rear their young. Low  
26 livestock density is an important attribute to suitable habitat, because high livestock  
27 density increases wolf-human conflicts and illegal and government killings. Biological  
28



1 Report at 14. The FWS acknowledges that the most suitable habitat across the Mexican  
2 wolf's range occurs on public lands, such as national forests, because they have minimal  
3 human development, high prey abundance, and low livestock abundance. Id.

4 47. Large blocks of public land exist in the southwestern United States that  
5 could provide suitable habitat for the Mexican gray wolf, including public lands with  
6 high prey density in Arizona and southern Utah in and around the Grand Canyon, and the  
7 San Juan National Forest in southern Colorado and the nearby Carson National Forest in  
8 northern New Mexico.

9 48. The experience with wolf recovery to date in Mexico, coupled with the  
10 high livestock density and paucity of protected lands, strongly suggests that sufficient  
11 suitable habitat does not exist in Mexico for a self-sustaining wolf population. In Mexico,  
12 more than 95% of the landscape consists of small, private landholdings. Mexico also has  
13 much higher livestock densities than the United States, contributing to a higher level of  
14 landowner-wolf conflicts. From 2012 to 2016, Mexico released 41 Mexican wolves into  
15 the Sierra Madre Occidental, almost half of which died within a year of release.

16 Biological Report at 25. The majority of the deaths were due to illegal killings. Id.  
17 Currently, the surviving wolves in Mexico must be supplementally fed by humans to  
18 discourage them from roaming into other, riskier areas in Mexico.  
19

### 20 **C. The History of the Mexican Gray Wolf Recovery Plan**

21 49. FWS listed the Mexican gray wolf as an endangered species in 1976. 42  
22 Fed. Reg. 17,736 (April 28, 1976).

23 50. FWS released a document styled as a "Recovery Plan" for the Mexican  
24 gray wolf in 1982, but FWS itself admitted that the 1982 document was "far from  
25 complete" and did not fulfill the ESA's requirement for recovery planning and was  
26 intended only as a temporary, stopgap measure.  
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1           51.     Since 1982, FWS convened four recovery teams in successive efforts to  
2 develop a legitimate recovery plan.

3           52.     In the first attempt, FWS in 1995 drafted a recovery plan to supersede the  
4 1982 “Recovery Plan” document, but never finalized it.

5           53.     The FWS Southwest Region convened another recovery team in 2003, but  
6 indefinitely suspended that recovery planning process in 2005.

7           54.     FWS again initiated a recovery planning effort in 2010 under instruction  
8 from the director of the Service’s Southwest Region. The Southwest Regional Director  
9 charged a Science and Planning Subgroup of the agency’s Mexican Wolf Recovery Team  
10 with developing a recovery plan consistent with the best available scientific information.  
11 That subgroup included an interdisciplinary team of acclaimed scientists, including  
12 conservation biologist Dr. Carlos Carroll.

13           55.     The Science and Planning Subgroup drafted a plan that proposed, based on  
14 the best available science, establishing a minimum of three interconnected  
15 subpopulations, each with at least 200 animals, as part of a metapopulation of at least 750  
16 Mexican gray wolves in the United States. The Subgroup concluded that “only three  
17 major core areas of suitable habitat exist” to support such subpopulations: the MWEPA,  
18 the Grand Canyon and adjacent areas, and the Carson National Forest/San Juan National  
19 Forest in northern New Mexico and southern Colorado. The Subgroup also supported  
20 restoration in Mexico in theory, but concluded that the habitat in Mexico was too  
21 marginal to support a sizable population. It proposed that the recovery plan should  
22 include a criterion to address illegal killings, proposing that in order for the Mexican gray  
23 wolf to be delisted, “[t]he estimate annual rate of human caused losses averaged over an  
24 8-year period is less than 20% as measured by a statistically reliable monitoring effort.”  
25  
26 2013 Proposed Recovery Criteria for the Mexican Wolf.  
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1           56. In the face of state opposition to northward extension of wolf populations  
2 and to growing wolf populations, the proposed plan was never finalized. In 2014,  
3 Plaintiffs filed suit against the Secretary of Interior and FWS for failure to prepare an  
4 adequate recovery plan for the Mexican gray wolf. As a result of a settlement negotiated  
5 to resolve that lawsuit, the FWS agreed to prepare a new recovery plan by November,  
6 2017. Defs. of Wildlife v. Jewell, No. CV-14-02472-TUC-JGZ, 2016 WL 7852469 (D.  
7 Ariz. Oct. 18, 2016).

8           57. FWS did not reconvene the Science and Planning Subgroup from the 2010  
9 recovery planning process when it undertook recovery planning pursuant to the  
10 settlement agreement in 2016-17. On June 30, 2017, FWS announced the Draft Recovery  
11 Plan (“Draft Plan”) for public comment.  
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13           58. Significantly weakening the delisting criteria requirements from those  
14 proposed by the Science and Planning Subgroup in 2013, the 2017 Draft Recovery Plan  
15 required only a minimum of two disconnected populations in order for the FWS to delist  
16 the Mexican gray wolf and remove ESA protections—one in the MWEPA and one in the  
17 Northern Sierra Madre Occidental region of Mexico. Draft Recovery Plan at 27. It set a  
18 numeric target of an average population abundance of greater than or equal to 320  
19 Mexican wolves in the MWEPA population over eight consecutive years, and a  
20 population abundance greater than or equal to 170 Mexican wolves in the Northern Sierra  
21 Madre Occidental population. Id. The Draft Plan also gave significant control to the  
22 states of Arizona and New Mexico over the timing, location, and circumstances of  
23 releases of captive wolves into the wild population despite a long history of state efforts  
24 to obstruct and delay such releases. Finally, the Draft Plan established a genetic criterion  
25 requirement that “[g]ene diversity available from the captive population has been  
26 incorporated into the MWEPA through scheduled releases of a sufficient number of  
27 wolves to result in 22 released Mexican wolves surviving to breeding age in the  
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1 MWEPA.” Draft Plan at 26. This criterion was based on the aim that the wild population  
2 would achieve the gene diversity of approximately 90% of the gene diversity of the  
3 captive population. But by linking the gene diversity goal to the already genetically poor  
4 captive population, the Draft Plan accepted a significant decline of genetic diversity that  
5 would likely exacerbate rather than ameliorate genetic threats.

6 59. Plaintiffs and other public commenters submitted extensive public  
7 comment, explaining why the draft recovery plan was inadequate.

8 60. For example, numerous commenters, including Dr. Carlos Carroll, pointed  
9 out that the population targets were inadequate to ensure conservation and survival of the  
10 species. Dr. Carroll explained that the population targets were derived from a population  
11 viability analysis model called the “Vortex” model, which he helped develop and which  
12 is used to synthesize biological information on the factors affecting the demographic and  
13 genetic status of the species, and to predict the influence of these factors on population  
14 viability and endangerment. Dr. Carroll noted that the most important parameter affecting  
15 extinction risk for the Mexican gray wolf is adult mortality. But rather than develop a  
16 population recovery target that takes into account the high level of mortality experienced  
17 by Mexican gray wolves, the model relied on by FWS assumed an unnaturally low rate of  
18 mortality. The model also overestimated the proportion of females in the breeding pool  
19 each year. Moreover, the model assumed that wolves would be released into the wild at  
20 the forecasted rate, yet the Draft Plan vested control over the timing of releases with  
21 states that had in the past worked to oppose and delay releases. These erroneous model  
22 inputs led to the FWS vastly underestimating how many wolves would be needed to  
23 ensure population viability.

24 61. Dr. Carroll and others also noted that the population viability modeling and  
25 plan criteria arbitrarily and capriciously failed to adequately consider genetic threats. Dr.  
26 Carroll concluded that inbreeding depression was not incorporated into the model when  
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1 predicting the probability of litter size, and that therefore the Draft Plan’s criteria would  
2 be “inadequate to address the genetic threats that arise due to small population size.” The  
3 Service also ignored the current supplemental feeding of wolves, and that this  
4 supplemental feeding likely masks the extent of inbreeding to date by reducing one of the  
5 symptoms of Mexican wolf inbreeding—smaller litter sizes and lower rates of pup  
6 survival. Such masking leads the model to underestimate the impacts of inbreeding on  
7 population viability once supplemental feeding is removed. Finally, commenters  
8 explained that, in order to be consistent with the ESA’s recovery mandate, the criterion to  
9 address amelioration of genetic threats should reflect retention within the wild  
10 populations of a large and increasing proportion of the total overall current diversity  
11 present in both the wild and captive populations. But instead of doing this, the Draft Plan  
12 adopted a genetic criterion that would lead to continued significant decline in genetic  
13 diversity.  
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15 62. Dr. Carroll and others also called into question whether the population  
16 goals met the ESA’s conservation and survival requirements. They noted that the  
17 population targets should generally be based on the conditions that will lead to a low  
18 predicted potential for extinction (e.g., less than 1% over 100 years or even a much  
19 longer period) and a high likelihood that populations would meet the specified size  
20 criteria over the long term so that the species will not need to be relisted. But rather than  
21 meet those standards, the FWS proposed a dangerously high extinction risk threshold of a  
22 10% risk of extinction over 100 years. This population target, Dr. Carroll calculated,  
23 would bring a 40% risk of the species needing to be relisted.  
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25 63. Commenters also explained that identification of suitable habitat is key to  
26 recovery planning, but that the Draft Plan had ignored suitable habitat in the United  
27 States outside of the MWEPA while overly relying on inadequate habitat in Mexico. The  
28 Draft Plan had assumed that there would be suitable habitat in Mexico to support a viable

1 population. Commenters pointed out, however, that the habitat suitability analysis had  
2 relied primarily on climate niche modeling—in other words, predicting where wolves can  
3 potentially live based on what climates are similar to where they live now. At the same  
4 time, the analysis ignored or inadequately addressed what FWS had deemed some of the  
5 most important predictors of habitat suitability—the abundance of prey, which is  
6 positively correlated with wolf population viability, and the abundance of livestock,  
7 which is negatively correlated with wolf population viability due to increased landowner  
8 conflicts. Most of the identified “habitat” in Mexico was on private land, where there is  
9 little reliable data on prey abundance, where livestock is plentiful, and where there was  
10 no analysis of the landowners’ willingness to participate in wolf recovery. The Draft Plan  
11 therefore failed to support its prediction that a wolf population in Mexico would be  
12 viable.  
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14 64. Finally, commenters pointed out that the most important stressor on  
15 Mexican gray wolf populations is illegal killing, yet, unlike the 2013 draft, the 2017 Draft  
16 Plan contained no objective measurable criteria or site-specific management actions to  
17 address illegal killing.

18 65. On November 29, 2017, FWS issued its Final Mexican Wolf Recovery  
19 Plan, constituting final agency action. The Final Recovery Plan failed to correct the  
20 deficiencies noted above.

21 66. FWS’s Final Mexican Wolf Recovery Plan violates the ESA’s recovery  
22 planning requirements, and the Plan’s shortcomings fail to chart a course for conservation  
23 and survival of this iconic species.  
24

25 **FIRST CAUSE OF ACTION**  
26 **(Violation of Endangered Species Act § 4(f), 16 U.S.C. § 1533(f))**

27 67. All preceding paragraphs are hereby incorporated as if fully set forth  
28 herein.

1           68. The ESA mandates that the Secretary of the Interior “shall develop and  
2 implement [recovery] plans . . . for the conservation and survival of endangered and  
3 threatened species . . . unless he finds that such a plan will not promote the conservation  
4 of the species.” 16 U.S.C. § 1533(f)(1).

5           69. Each recovery plan must include, to the maximum amount practicable, “a  
6 description of such site-specific management actions as may be necessary to achieve the  
7 plan’s goal for the conservation and survival of the species” and “objective, measurable  
8 criteria which, when met, would result in a determination, in accordance with the  
9 provisions of this section, that the species be removed from the list.” Id.  
10 § 1533(f)(1)(B)(i)-(iii).

11           70. The findings in the recovery plans must be “based upon the best scientific  
12 evidence available.” Fund for Animals, 903 F. Supp. at 114.

13           71. The Recovery Plan is subject to judicial review under 16 U.S.C. § 1540(g)  
14 in accordance with the standard of review set forth in the Administrative Procedure Act  
15 (“APA”). Consistent with the APA, courts must hold unlawful and set aside agency  
16 actions found to be “arbitrary, capricious, an abuse of discretion, or otherwise not in  
17 accordance with law.” 5 U.S.C. § 706(2)(A).

18           72. The U.S. Supreme Court has clarified that agency action “would be  
19 arbitrary and capricious if the agency has relied on factors which Congress has not  
20 intended it to consider, entirely failed to consider an important aspect of the problem,  
21 offered an explanation for its decision that runs counter to the evidence before the  
22 agency, or is so implausible that it could not be ascribed to a difference in view or the  
23 product of agency expertise.” Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut.  
24 Auto. Ins. Co., 463 U.S. 29, 43 (1983). Stated differently, the Service must provide  
25 “rational reason[s]” for its decisions. Fund for Animals, 903 F. Supp. at 114.  
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1           73. The Service’s Mexican Wolf Recovery Plan violates the ESA, because it is  
2 arbitrary, capricious, fails to state a legally valid and rational connection between the  
3 facts found and the decision made, and is not in accordance with law, within the meaning  
4 of the APA.

5           74. The Recovery Plan violates the ESA’s requirement that it provide for the  
6 conservation and survival of the Mexican gray wolf by, among other things, (1) failing to  
7 base its population and genetic goals on the best available science, and setting population  
8 and genetic goals that are unlikely to provide for species’ conservation and survival; and  
9 (2) disregarding the best available science identifying suitable Mexican wolf recovery  
10 habitat in the United States, and unreasonably relying on recovery efforts in Mexico,  
11 despite the evidence that Mexico lacks suitable habitat and management to ensure a self-  
12 sustaining population.  
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14           75. The Recovery Plan violates the ESA’s requirements that a recovery plan  
15 include objective, measurable criteria which, when met, would result in a determination  
16 that the species be removed from the list and site-specific management actions necessary  
17 to achieve the plan’s goal for the conservation and survival of the species, because it  
18 identifies illegal killing as a primary threat affecting recovery, yet fails to identify  
19 objective measurable criteria or include site-specific management actions to address  
20 illegal killings.  
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22           76. The Recovery Plan violates the ESA’s requirement that a recovery plan  
23 include objective, measurable criteria which, when met, would result in a determination  
24 that the species be removed from the list, because the Plan’s criterion to address genetic  
25 diversity arbitrarily and capriciously allows for continued decline in genetic diversity.  
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**SECOND CAUSE OF ACTION**

**(Final Agency Action Unlawfully Arbitrary, Capricious, an Abuse of Discretion, and Contrary to ESA Under Administrative Procedure Act, 5 U.S.C. § 706(2))**

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

78. In the alternative to the First Cause of Action set forth above, the APA grants this Court the authority to “hold unlawful and set aside . . . agency action found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2). The APA creates a presumption of reviewability for all final agency action. The Final Mexican Wolf Recovery Plan is final agency action reviewable under the APA because it (1) marks the consummation of the Service’s decisionmaking process and (2) it is a decision which determines rights and obligations and from which legal consequences flow. Bennett v. Spear, 520 U.S. 154, 178 (1997).

79. As described above, FWS has failed to consider relevant factors, failed to articulate a rational connection between the facts found and the decision made, and/or failed to follow applicable policy, regulation and law, all in violation of the APA and the ESA.

**REQUEST FOR RELIEF**

THEREFORE, Plaintiffs respectfully request that this Court:

A. Issue a declaratory judgment that Defendants’ adoption of the 2017 Recovery Plan for Mexican gray wolves violates section 4(f) of the ESA for the reasons set forth herein;

B. Remand the 2017 Recovery Plan for Mexican gray wolves to Defendants;

C. Issue an injunction ordering Defendants to promptly develop a lawful recovery plan for the Mexican gray wolf, with a draft plan required within six months of the Court’s judgment, and a final recovery plan required within six months thereafter;

