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

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

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

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

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

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

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

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

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

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

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

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

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

ANALYTICAL DEFECTS IN THE FEIS AND 10(j) RULE

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

REQUEST FOR RELIEF

THEREFORE, Plaintiffs respectfully request that this Court:

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

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

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

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

DATED this 16th day of January, 2015,

s/ Timothy J. Preso

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