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SENT VIA U.S. MAIL (RETURN RECEIPT) AND E-MAIL

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Re: Sixty-day notice of intent to sue for violations of the Endangered Species Act in re-listing the Mexican gray wolf as a non-essential experimental population and issuing a new Section 10(1)(A) permit.

WildEarth Guardians, New Mexico Wilderness Alliance, and Friends of Animals (hereafter "Guardians") hereby provide this notice of intent to sue the Department of the Interior and U.S. Fish and Wildlife Service (hereafter referred to jointly as "the Service") for violations of the Endangered Species Act ("ESA"), 16 U.S.C. §1531 *et seq*. and implementing regulations in its revision of the ESA Section 10(j) rule and Section 10(a)(1)(A) permit for the Mexican gray wolf (*Canus lupus baileyi*). *See* Revisions to the Regulations for the Nonessential Experimental Population of the Mexican Wolf, 80 Fed. Reg. 2512 (to be codified at 50 C.F.R. §17.84(k)) (Jan. 16, 2015); Final Environmental Impact Analysis and Record of Decision, 79 Fed. Reg. 70154 (Nov. 25, 2014).

On January 16, 2015, the Service published in the Federal register a final rule listing the Mexican gray wolf as an endangered subspecies (Docket No. FWS-HQ-ES-2013-0073), and a final rule revising the ESA §10(j) regulation for the newly listed species (Docket No. FWS-R2-ES-2013-0056) and issuing a new ESA Section 10(a)(1)(A) permit. This letter provides the notice required by Section 11(g) of the ESA - 16 U.S.C. §1540(g)- of Guardians' intent to challenge the revised Section 10(j) rule, the Section 10 permit, Final Environmental Impact Statement, Record of Decision and biological opinion unless, within 60 days, the Service remedies the violations of the ESA identified herein. The notice is submitted on behalf of the following organizations each of which has significant and concrete interests in ensuring the long-term survival and recovery of the Mexican gray wolf in the contiguous United States and in ensuring that

the Service utilizes the best available science in making listing determinations, management decisions, Rule 10(j) designations, critical habitat designations and in promulgating regulations: *WildEarth Guardians*; *New Mexico Wilderness Alliance; Friends of Animals.*

I. The Endangered Mexican Gray Wolf

"The Mexican gray wolf (*Canis lupus baileyi*), or 'lobo,' is the smallest, rarest, and most genetically distinct subspecies of gray wolf (*Canis lupus*)." *WildEarth Guardians v. U.S. Forest Service*, 668 F.Supp.2d 1314, 1319-1320 (D.N.M. 2009); see also 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). Although it once widely roamed across the southwestern United States and Mexico, the Mexican wolf was purposefully eradicated from the United States on behalf of American livestock, hunting, and trapping interests. *See* 63 Fed. Reg. at 1,752 – 1,753 (explaining reasons for the decline and eventual extirpation of the Mexican wolf from the United States).

Recognizing its imperilment, the Service placed the Mexican gray wolf subspecies on the federal list of threatened and endangered species on April 28, 1976. *See* 41 Fed. Reg. 17,742 (1976). The original Mexican wolf listing was subsumed by the Service's 1978 listing of *Canis lupus* as endangered. *See* 43 Fed. Reg. 9,607 (1978) (listing rule); 75 Fed. Reg. 46,894, 46,895 (2010) (explaining listing history). Previously part of the larger *Canis lupus* listing, and now listed separately as endangered, the Service has long recognized the Mexican gray wolf as a "valid biological subspecies for the purpose of research and conservation." 75 Fed. Reg. at 46,895.

Mexican wolf recovery efforts have been ongoing for decades. In 1982, the Service recognized the Mexican wolf's poor prospects for survival and developed a so-called recovery plan, which the Service itself deemed "far from complete." See 75 Fed. Reg. at 46,895, U.S. Fish and Wildlife Service, Mexican Wolf Recovery Plan (1982). This plan recommends "a two-pronged approach to conservation that include[s] establishment of a captive breeding program and reintroduction of wolves to the wild." *Id*. The plan's objective "is to conserve and ensure survival of the subspecies by maintaining a captive breeding program and re-establishing a viable, self-sustaining population of at least 100 Mexican wolves in a 5,000 square mile area within the subspecies' historic range." 63 Fed. Reg. at 1,753. The current 'recovery plan,' more than 25 years old, is both functionally and scientifically irrelevant and therefore virtually useless. The Service moved to revise that recovery plan in 2010, but in 2012 stuck the draft recovery plan in a drawer. The draft includes recommendations for the establishment of additional wild populations of Mexican wolves.

With no Mexican wolves remaining in the United States, the few remaining wild Mexican wolves in Mexico were captured and seven became the founding stock for the captive breeding program. In 1996, the Service developed a Final Environmental Impact Statement ("FEIS") for the plan to reestablish a wild population of Mexican gray wolves

by releasing captive wolves into the Southwestern United States. *See* 75 Fed. Reg. at 46,895. The FEIS predicted achievement of the initial goal of 100 wolves in the wild by 2005. *Id*.

In 1998, the Service established *via* Final Rule, a "nonessential experimental" population of Mexican gray wolves as a subspecies of the listed entity, *Canis lupus*, pursuant to ESA § 10(j) and issued an ESA § 10(a)(1)(A) rule and permit. *See* generally 63 Fed. Reg. 1,752, codified at 50 C.F.R. § 17.84(k). At that time, the Service reiterated its initial 100-wolf goal, *see id.* at 1,754. In March of 1998, the Service released into the wild eleven Mexican wolves from the captive breeding program, reintroducing the wolves to the Blue Range Wolf Recovery Area (BRWRA) in east-central Arizona and west-central New Mexico.[1] *See* 75 Fed. Reg. at 46,895. In June 2013, the Service began scoping for revisions and reissuance of the 1998 ESA § 10 rule and permit. 79 Fed. Reg. 43358.

Mexican gray wolves currently exist in the wild only where they have been reintroduced. *See* 75 Fed. Reg. at 46,896. Unfortunately, more than a decade after reintroduction, the population is "not thriving" and is "at risk of failure." *Mexican Wolf Conservation Assessment (2010).* With 109 wolves in the wild at the latest count (February, 2015), over 16 years into active reintroduction efforts and a decade after the date set for reaching the initial goal, the Service only this year met the original goal (now recognized as woefully inadequate) of reaching 100 individuals to establish a "viable self-sustaining population." *See* 75 Fed. Reg. at 46,896; DEIS, App. G, at 10. The Service's failure until this year to reach the initial recovery benchmark is in part due to human-induced wolf mortality, including by the Service's own employees and contractors:

> In the reintroduced Mexican wolf population, causes of mortality have been largely human-related (vehicular collision and illegal shooting). Additionally, reintroduced Mexican wolves have been removed from the wild for management purposes. To date, the Mexican wolf population has had a failure (mortality plus removal) rate too high for natural or unassisted population growth….

75 Fed. Reg. at 46,896 (internal citations omitted) (2010).

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[1] The BRWRA includes all of the Gila National Forest in west-central New Mexico and all of the Apache National Forest in east-central Arizona. 50 C.F.R. § 17.84(k)(9)(i). The BRWRA is situated within the Mexican Wolf Experimental Areas ("MWEPA") – the primary recovery zone for wolf reestablishment. *Id.* The Service drew the Section 10(j) boundary to encompass the MWEPA, which consisted of: that portion of Arizona lying north of Interstate Highway 10 and south of Interstate Highway 40; that portion of New Mexico lying north of Interstate Highway 10 in the west, north of the New Mexico-Texas border in the east, and south of Interstate Highway 40; and that portion of Texas lying north of United States Highway 62/180 and south of the Texas-New Mexico border. *See* 50 C.F.R. § 17.84(k)(9)(ii).

II. The Endangered Species Act

"The Endangered Species Act of 1973 represented the most comprehensive legislation for the preservation of endangered species ever enacted by any nation." *Tennessee Valley Authority v. Hill*, 437 U.S. 153, 180 (1978). The primary purpose of the ESA is to "provide a program for the conservation of…endangered and threatened species." 16 U.S.C. § 1531(b). To receive the full protections of the ESA, a species must first be listed by the Secretary of the Interior as "endangered" or "threatened" pursuant to ESA section 4. *Id*. § 1533. The ESA defines an "endangered species" as "any species which is in danger of extinction throughout all or a significant portion of its range." *Id*. § 1532(6). A "threatened species" is "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." *Id*. § 1532(20). The term "species" is defined to include "any subspecies of . . . wildlife." *Id*. § 1532(16).

The ESA mandates 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)(1). The ESA defines conservation as "the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to [the ESA] are no longer necessary." *Id.* § 1532(3). The goal of conserving species "is a much broader concept than mere survival. The ESA's definition of 'conservation' speaks to the recovery of a threatened or endangered species." *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv.*, 378 F.3d 1059, 1070 (9th Cir. 2004) (quotations and citation omitted).

The ultimate goal of the ESA is not merely to temporarily save endangered and threatened species from extinction, but to *conserve and recover* these species to the point where they are no longer in danger of extinction and thus no longer need ESA protection. This requirement to recover protected species is the foundational mandate of the ESA, and the standard against which the Service's actions must be judged.

Once species are listed, the ESA provides strong legal protections to encourage their recovery. These protections are largely set forth at ESA §§ 4, 7, and 9. Section 4 requires the Secretary of Interior, acting through the U.S. Fish and Wildlife Service, to designate critical habitat for all threatened and endangered species concurrently with their listing and to subsequently develop recovery plans for such species. *See* 16 U.S.C. §§ 1533(a)(3) and (f). Section 7 requires all federal agencies to "carry out programs for the conservation" of listed species and to consult with the Service in order to ensure that their actions are "not likely to jeopardize the continued existence" of such species or "result in the destruction or adverse modification" of their critical habitat. *Id.* §§ 1536(a)(1) and (a)(2). Section 7 also requires that federal agencies "use the best available scientific and commercial data" when evaluating the impacts to listed species. 16 U.S.C. § 1536(a)(2). Section 9 prohibits any person from "taking" a listed species or causing another to "take" such species. *Id.* §§ 1538(a)(1)(B) and (g). To "take" a species means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." *Id.* § 1532(19).

Section 10(j) provides an affirmative mechanism for species recovery: reintroduction. Under Section 10(j), the Service may authorize the release of any population of a listed species into an area outside of that species' current range. *See* 16 U.S.C. §1539(j)(2)(A); 50 C.F.R. § 17.81(a). Section 10(j) authorizes the Service to release a population as experimental when "such release will further the conservation of the species" and "only when, and at such times as, the population is wholly separate geographically from nonexperimental populations of the same species," 16 U.S.C. § 1539(j)(2)(A) and (j)(1). For each population released pursuant to Section 10(j), the Service must by regulation delineate a population boundary and determine whether that population is "experimental" and whether it is "essential to the continued existence" of the species in the wild. 16 U.S.C. § 1539(j)(3); 50 C.F.R. § 17.81(c)(2). The Service has labeled *every* population of endangered species ever reintroduced pursuant to ESA § 10(j) as "experimental, nonessential" ("ENE"). Although there is only a single population in the wild, the Mexican wolf is no exception to the Service's 100% ENE designation for reintroduced species.

The purpose of Section 10(j) is to encourage reintroduction, and therefore species recovery. *See Wyoming Farm Bureau Federation v. Babbitt*, 199 F.3d 1224, 1231-32 (10th Cir. 2000). While ENE populations must be managed to "further the conservation of the species," the Service has more flexibility in managing a reintroduced ENE population than it would if the individuals occurred naturally, without reintroduction. 16 U.S.C. §1539(j)(2)(A); 50 C.F.R. 17.81(b). As an example, the Service may alter one or more of the ESA's protections, including the Section 9 take prohibition, for an ENE population. *See* 16 U.S.C. § 1539(a)(1); 50 C.F.R. § 17.82. The Service sets forth any alterations to the ESA's protections in a species-specific Section 10(j) Rule. *See* 50 C.F.R. § 17.81(e). *See also* generally 50 C.F.R. § 17.84 (setting forth all species-specific Section 10(j) Rules to date).

Section 10(a)(1)(A) of the ESA authorizes the Service to issue permits for a "take" of a protected species that would otherwise be prohibited. 16 U.S.C. §1539(j)(2)(A); 50 C.F.R. 17.81(b). The Service issues these permits "for scientific purposes or to enhance the propagation or survival of the affected species, including, but not limited to, acts necessary for the establishment and maintenance of experimental populations pursuant to subsection (j) of this section." 16 U.S.C. § 1539(a)(1)(A). As with all of ESA's provisions, the Service may issue a Section 10 permit only if it "will be consistent with the purposes and policy set forth in Section 1531" of the ESA. 16 U.S.C. § 1539(d). Section 1531 explains the purposes "to provide a means whereby ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and…" 16 U.S.C. § 1531(b). Along with all federal departments and agencies, the Service, "shall seek to conserve endangered and threatened species and shall utilize their authorities in furtherance of the purposes" of the ESA. 16 U.S.C. § 1531(c). The Service therefore must ensure that in designating a Section 10(j) species as ENE, in issuing the resulting Section 10(j) Rule, and issuing a Section 10(a) permit, the agency utilizes its authorization to further the conservation purposes of the ESA. As set forth in

more detail below, the Service has failed to ensure that its actions will conserve and recover the Mexican wolf.

III. The Service's Actions Regarding the Mexican Wolf Violate the ESA.

The Service's 2015 listing of Mexican wolf as an experimental, nonessential species, the Section 10(j) Rule, Section 10(a) permit, and the Service's Biological Opinion fail to comply with the best available science standard, are inconsistent with statutory language, do not further the conservation of the species, and are otherwise arbitrary, capricious, and otherwise not in accordance with the ESA and the Service's regulations.

A. Capping the MWEPA Population at 300-325 Individuals is Neither Science-Based nor for the Purpose of Conservation.

The Service's proposal to place a hard cap on the MWEPA Mexican wolf population at 300 to 325 individuals is not based on the best available science, or any science, and no evidence presented suggests it will benefit the conservation and recovery of the reintroduced endangered Mexican wolf subspecies. Rather, this unprecedented population cap is a clear political decision meant to appease anti-conservation state interests.

The Service attempts to justify this cap by misrepresenting the research of Carlos Carroll *et al* (2014), claiming that Carroll *et al*. found that extinction risks for Mexican gray wolf were low for a single population of 300-325 wolves. FEIS, Chapter 20, at 1. Carroll however, concluded the risk was low for a population when that was within a metapopulation of three connected populations. In fact, Carroll concluded that even at a population of 300-325 "an isolated population originating from wolves with the genetic composition of the current Blue Range population showed relatively high extinction rate…." Dec. 19. 2014 letter from Carlos Carroll *et al*. to Division of Policy and Directives Management, Fish and Wildlife Service Headquarters. Nothing in Dr. Carroll's work suggests capping the population would ever serve the recovery of the species.

The best available science calls for a meta-population of at least 750 wild Mexican wolves in at least three populations each with a minimum of 250 wolves before the species can be considered recovered such that ESA protection would no longer be needed. *See* Carroll, *et al*. (2014); 80 Fed. Reg 2517; Wayne, R and Hedrick, P (2010), Genetics and Conservation in the American West: Lessons and Challenges. *Heredity, 107(1)*, 16-19: "Given expected rates of wolf removal and killing, we suggest that for recovery of Mexican wolves three populations, each simultaneously having 250 animals for 8 Years (approximately two generations) is the minimum necessity."

The Service's own analysis concludes the MWEPA can support 534 Mexican wolves. No peer-reviewed analyses of the MWEPA's carrying capacity contradicts these projections or supports the Service's arbitrary 325 wolf limit. There is no scientific basis for capping the reintroduced Mexican wolf population at 300 to 325 individuals. Moreover, the concept of a cap is entirely unprecedented: the Service has never capped a wild population of a species, likely because it is entirely illogical to do so for an imperiled species.

The Service is aware of the disproportionate importance some individual Mexican wolves may have to the subspecies' survival and recovery due to their genetics or social status in the reintroduced wild population's small effective population. Yet, neither the Record of Decision (issued January 2015) nor the FEIS (issued November 2014) contain any analysis or language acknowledging these issues with regard to setting a hard cap on the wild Mexican wolf population.

Although the Service states that Mexican wolves in excess of the population cap will be removed, it also acknowledges that there is no available space in captive breeding facilities to house wild Mexican wolves removed from the MWEPA. The Service provides no indication it can logistically, let alone reliably or successfully transfer wolves to the Mexican reintroduction project's care. Thus, this provision is, in effect, a *de facto* death sentence for all Mexican wolves numbered 326 and beyond regardless of those wolves' importance to the subspecies' future, and despite the best available science calling for at least 750 wild Mexican wolves.

The science also shows that wolf populations generally do not grow linearly or incrementally. If left alone, they expand exponentially until they find balance at their territory's carrying capacity. Thus, this provision may result in exponentially increasing lethal take of Mexican wolves in relatively short order. The Service creates this cruel ticking time bomb for the reintroduced Mexican wolf population without any colorable justification, rationale, or consideration of the impact to the subspecies' long-term genetic health and viability.

The Service proposes to set the MWEPA population cap without a scientifically or legally sufficient recovery goal. This contradicts ESA § 4(f). Because the Service has not established recovery criteria, it cannot know how many Mexican wolves are needed in the MWEPA to support recovery. As noted, the best available science suggests the MWEPA's Mexican wolf carrying capacity is 534 individuals. The Service does not know and has not considered in this rulemaking whether Mexican wolves number 326 through 534 will be necessary to the subspecies' survival and recovery. It appears that although the Service has never complied with ESA § 4(f), it intends to cap the only wild population of endangered Mexican wolves without any scientifically or legally defensible rationale.

Moreover, the hard 320-325 figure ignores the biological need for a genetically effective population: the number of wolves who are actually capable of ensuring the next generation, which is always significantly smaller than the actual population size. The

Service itself has recognized that even with nearly 300 animals in captivity, the genetic effective population is only 20. 78 Fed. Reg. 35705. Because Mexican wolves are in a state of genetic emergency, some individuals are more valuable to the survival and recovery of the species than others. Removal of certain wolves is thus more damaging. The Service does not indicate that it will take into account the genetic and reproductive value of individual wolves when enforcing this arbitrary new cap.

Coupled with the Service's other provisions increasing the potential for take of Mexican wolves and limiting the subspecies' ability to establish additional interconnected subpopulations outside the MWEPA, it is unclear how this provision can achieve anything other than undermining Mexican wolf recovery. There is no rational, scientific, or legal justification for the population cap. The decision is arbitrary, capricious, and otherwise not in accordance with the law.

B. The Sole Mexican Wolf Population in the Wild Cannot be "Nonessential."

Despite repeated calls in public comments and at public hearings, the Service failed to consider whether the lone extant population of the newly-listed Mexican wolf subspecies is essential or non-essential, instead merely maintaining the previous status as an experimental non-essential (ENE) population.

The Service's regulation requires that "Any regulation promulgated under paragraph (a) of this section shall provide:… (2) A finding, based solely on the best scientific and commercial data available, and the supporting factual basis, on whether the experimental population is, or is not, essential to the continued existence of the species in the wild…". 50 C.F.R. § 17.81(c).

With the listing of a new subspecies – the Mexican gray wolf – the Service was required to provide a finding, based on the best available science, for whether the experimental population was "essential to the continued existence of the species (Mexican gray wolf) *in the wild*." (Emphasis added). The Service failed to make that finding for the experimental population of the newly-listed Mexican gray wolf. Moreover, as set forth below, the Service's regulations, and a plain language interpretation of law, require that where there is only one population of a species *in the wild*[2], that population *must* be designated as an experimental essential population.

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[2] In its January 2015 rule, the Service determined that "[c]urrently no populations or individuals of the Mexican wolf subspecies are known to exist in the United States outside of the MWEPA." 80 Fed. Reg. 2549. The Service further noted that the only other Mexican gray wolves in the wild are, as of October, 2014, two adults and five pups in Mexico, approximately 100 miles south of the MWEPA population. *Id*. The Service further noted that the "Mexican wolves in Mexico do not meet the definition of a population that we have consistently used in our gray wolf experimental population rules which is at least two breeding pairs of gray wolves that each

The Service's regulation provides that the "term *essential experimental population* means an experimental population whose loss would be likely to appreciably reduce the likelihood of the survival of the species in the wild." 50 C.F.R. § 17.80(b). Where there is only a single population in the wild, the loss of that population will, by definition, "appreciably reduce the likelihood of the survival of the species in the wild."

The Service refused to evaluate whether the newly listed Mexican gray wolf was essential or nonessential. Instead, the Service relied on its 1998 Rule for the conclusion that "even if the entire" population in the wild died, "the captive population could produce more surplus wolves." 80 Fed. Reg. 2551 (citing 1998 Rule at 63 Fed. Reg. 1754). This reliance on the 17 year old rule ignores the fact that the listed species in 1998 was the gray wolf, while in the 2015 decision and 10(j) rule, for the first time, the listed entity is the Mexican gray wolf subspecies.

The Service's reasoning and conclusion is in error for several reasons. First, the reasoning ignores the plain language of the regulation: at the moment "the entire" population in the wild died, there would be no population in the wild. The only population in the wild, the MWEPA population, therefore meets the regulatory definition of an "essential" experimental population. Second, any future release is purely speculative, as there are none currently planned and the Service has failed to successfully start a second wild population from the captive population over the past 17 years.

Third, this claim ignores the best available science on Mexican wolf genetics and the effects of captivity on the suitability of reintroduction to the wild for species generally. The existence of the captive population may have ensured the survival of the population in the wild in 1998 when the Service first established the experimental population. Even if we ignore the fact that the listed species in 1998 was the gray wolf, rather than the Mexican gray wolf, more than sixteen years later, the reliance on captive populations is highly suspect. The Service recognized as much in the 1998 ESA § 10(j) rule, when it stated "[t]his reintroduction will establish a wild population of at least 100 Mexican wolves and reduce the potential effects of keeping them in captivity in perpetuity. If captive Mexican wolves are not reintroduced to the wild within a reasonable period of time, genetic, physical, or behavioral changes resulting from prolonged captivity could diminish their prospects for recovery." 63 Fed. Reg. 1755. A 2008 review echoes this concern about the captive Mexican wolf population's genetic deterioration leading to maladaptive traits. Frankham, R. Genetic Adaptation to Captivity in Species Conservation Programs. Molecular Ecology 17(1):325-333 (2008).

Adaptation to captivity with associated maladaptation to the wild is not the only reason the captive population can no longer be relied upon to repopulate the wild should the existing experimental population die out. The captive population's inexorable loss of genetic diversity, exacerbated by the aging of particularly genetically valuable

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successfully raised at least two young annually for two consecutive years." *Id.* (citing 59 Fed. Reg. 60252.

individuals, leaves it a weak reed upon which to base recovery. Although the captive breeding program has worked to preserve as much of the species' genetic diversity from the seven founders as possible, the Service and the Species Survival Plan managers knew from the beginning of the effort that Mexican wolves would need to quickly expand their numbers, and genetic diversity in the wild beyond the capacity of the captive breeding program alone. By reproducing quickly in the wild, the experimental population would express and thereby preserve more of the species' genetic diversity. Unfortunately, legal and illegal take, over-management including removals of genetically valuable individuals, repeated management 'accidents' leading to the injury or death of wild wolves, and delayed releases have kept the experimental population too small for too long, resulting in a loss of the founders' genetic potential.

Of the total captive population of 270 Mexican wolves, 33 are reproductively compromised or overly inbred. Because releases to the experimental population have not progressed fast enough to free-up space in captive breeding facilities, the captive population is at capacity with older individuals that have never bred. Sixty-two percent of the wolves in the captive population are seven years old or older – at or reaching the end of their breeding lives. The population retains only an estimated 3.01 founder genome equivalent (i.e., loss of alleles represented in the founders of the population) suggesting the captive population has lost more than half of the alleles present in the seven founders. 78 Fed. Reg. 35705-35706. The Service also recognized that the genetically effective captive population is only 20 animals. *Id*.

Even if the Service could ignore the plain language of its own regulation, the best available science establishes that the captive populations, after more than 16 years in captivity, suffer from "genetic, physical or behavioral changes resulting from prolonged captivity" which, along with loss of genetic diversity and resulting development of maladaptive traits have created compounded obstacles to the recovery of the Mexican wolf.

Moreover, even if the captive population could eventually lead to a viable wild population, there would be years between the extirpation of the current "experimental non-essential" population (the only wild population) and re-establishment of a new wild population. This outcome is simply not permissible.

Where there is only a single population of Mexican wolves in the wild and where the only animals that are not experimental are second or third generation in captivity and are suffering from loss of genetic diversity, maladaption, and behavioral changes, the Service violates the ESA and its regulations by failing to revisit the designation of the sole wild population of Mexican wolves as "experimental nonessential" at the time it listed a new subspecies: the Mexican wolf. The decision is arbitrary, capricious, and otherwise not in accordance with the law.

C. The Service's Revisions of Permissible Take of Mexican Wolves are Neither Science-Based nor for Purpose of Conservation.

The Service's revisions to allowable take of Mexican wolves cannot and will not aid in the conservation of the species. In the proposed revised rule, the Service has the temerity to state: "Nothing in this rule requires an increase in the killing or permanent removal of Mexican wolves." 80 Fed. Reg. 2541. While it is true that rule does not *require* increased killing, it certainly allows increased killing. The Service significantly liberalizes allowable take on non-federal lands, increases the area where lethal snaring is allowed, and provides a new justification for take: purported protection of ungulate populations. 80 Fed. Reg. 2561.

The Service presents no science-based evidence – and we are aware of none – supporting the assertion that new, more permissive take provisions can or will achieve the Service's duty and mandate to conserve and recover the Mexican wolf. The current best available science suggests legal take must decrease. Likewise, the latest peer reviewed science, of which the Service was thoroughly informed during the public comment period, demonstrates lethal take may *increase* rather than decrease livestock depredations, undermining the very justification for most if not all of the take the Service authorizes.

The Service's own 2010 Conservation Assessment for Mexican wolves identifies among the threats hindering the growth and fitness of the reintroduced wild Mexican wolf population management and regulatory mechanisms and illegal shooting. This same Service Assessment concludes that combined sources of mortality and removal consistently result in failure rates too high for the population to attain viability or self-sustenance. Management and regulatory mechanisms, particularly those that may result in take or which affirmatively authorize take, are entirely within the control of the Service. The take authorized by the revised 10(j) rule and ESA § 10 permit may tip the balance between progress toward recovery and failure of the reintroduction project, which would directly impact the subspecies' continued existence.

The precautionary principle and the principle of adaptive management both counsel that in light of past performance of the reintroduction project, there is no support for creating additional opportunities to take Mexican wolves when previous levels of take are already too high to protect the reintroduced wild Mexican wolf population let alone further its conservation and recovery. The decision is arbitrary, capricious, and otherwise not in accordance with the law.

D. Geographic Restrictions and Delayed Implementation of Expansion of the MWEPA are Neither Science-Based nor for the Purpose of Conservation.

We commend the Service for acknowledging that the Mexican wolf recovery program is flawed and beginning to embrace the best available science by proposing to significantly expand the Mexican wolf reintroduction project area. We also commend the Service for retiring the outdated and overly constrictive BRWRA. The Service takes an important step in embracing the best available science by significantly expanding the area

in which it can conduct initial Mexican wolf releases, translocations, and cross fostering in MWEPA Zone 1. Likewise, the Service takes another important step in expanding the area in which it can conduct translocations and cross fostering, and in which it will allow Mexican wolves to disperse and establish territories in MWEPA Zone 2 and in expanding the area in which it will allow Mexican wolves to disperse and establish territories in MWEPA Zone 3.

However, the Service undermines this progress by restricting dispersal of Mexican wolves outside the MWEPA, and providing for removal of any animal that disperses beyond the MWEPA. 80 Fed. Reg. at 2512, 2517, 2525, 2558, 2563-66. The best available science calls for at least three wild populations of Mexican wolves, including one in the Southern Rockies and one in the Grand Canyon ecoregion. In the face of widespread calls to allow Mexican wolves to move north of the artificial I-40 boundary to repopulate the Southern Rockies and Grand Canyon ecoregions, the Service proposes to further delay expanding the MWEPA, by up to eleven years. The Service's prohibition against allowing dispersal north of I-40 precludes establishment of populations in the two areas (Grand Canyon and Southern Rockies) that both Carroll *et al.* and the Science and Planning Subgroup identified as providing habitat for additional core populations. *See* Carroll *et al*. (2014) at 78; U.S. Fish & Wildlife Service, *Draft Mexican Wolf Revised Recovery Plan* 49 (May 2012). This is contrary to the best available science stating that reestablishment of multiple subpopulations forming an interconnected meta-population and allowing Mexican wolves to disperse naturally into favorable habitat are necessary for the subspecies' recovery. *See e.g*. Carroll *et al*. (2014).

The Service has acknowledged that an arbitrarily restricted reintroduction area has slowed progress toward Mexican wolf recovery and delayed the reintroduction project's success to the detriment of the Mexican wolf subspecies' genetic health and prospects for long-term survival. The Service has also recognized "that the reestablishment of a single experimental population of Mexican wolves is inadequate for recovery." FEIS, Ch. 1, p. 17. The agency further recognizes that long-term survival will "depend on establishment of a metapopulation or several semi-disjunct but viable populations spanning a significant portion of (the subspecies) historic range in the region." FEIS, App. G, p. 28. Yet the Service ignored its own conclusions and the best available science and insisted on the artificial and scientifically unsound I-40 northern boundary and delayed implementation of the MWEPA expansion.

This decision is neither rational nor is it scientifically defensible, and the Service failed to adequately explain its change in course. The decision is arbitrary, capricious, and otherwise not in accordance with the law.

PARTIES GIVING NOTICE

The contact information for the parties giving notice is as follows:

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CONCLUSION

As set forth above, the Service has violated the ESA and Guardians may pursue litigation in federal court following sixty days after this notice if these violations are not remedied.

If you have any questions, wish to discuss this matter, or believe this notice is in error, please contact the parties at the addresses noted above.

Sincerely,
s/ Sarah McMillan
Attorney for WildEarth Guardians

s/ Judy Calman
Attorney for New Mexico Wilderness Alliance

s/ Michael Harris
Attorney for Friends of Animals