The Rewilding Institute

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December 26, 2007

John Slown
U.S. Fish and Wildlife Service
New Mexico Ecological Services Field Office
2105 Osuna NE
Albuquerque, NM 87113
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Re: Scoping Comments pursuant to Federal Register Vol. 72, No. 151, Pages 44065-44069: *Endangered and Threatened Wildlife and Plants; Notice of Scoping Meetings and Intent to prepare an Environmental Impact Statement and Socio-Economic Assessment for the Proposed Amendment of the Rule Establishing a Nonessential Experimental Population of the Arizona and New Mexico Population of the Gray Wolf ("Mexican Gray Wolf").*

Dear Mr. Slown:

The Rewilding Institute (TRI) welcomes the opportunity to submit scoping comments on the above referenced proposal to revise the ESA section 10(j) rule that established and governs the management of the nonessential experimental population of Mexican wolves in the Blue Range Wolf Recovery Area. TRI is a conservation think tank dedicated to the restoration and conservation of biological diversity, ecological processes, and biological evolution at effective landscape and continental scales. We recognize the essential role of large carnivores in regulating ecosystems, promoting biological diversity, and maintaining ecosystem health; we support Mexican wolf restoration at ecologically effective population densities and distributions.

These comments have been endorsed by prominent scientists and conservation organizations listed below.

Introduction

The Mexican gray wolf (*Canis lupus baileyi*), a recognized subspecies of the gray wolf (*Canis lupus*) (Young and Goldman 1944; Garcia-Moreno et al. 1996; Nowak 1995), was first listed as an endangered subspecies under provisions of the Endangered Species Act (ESA), 16 U.S.C. §§ 1531 *et seq.,* in 1976. See 41 Fed. Reg. 17736. In 1978, pursuant to Section 4 of the ESA, 16 U.S.C. § 1533, the gray wolf species was listed as endangered in North America south of Canada, except in Minnesota where it was listed as threatened. See 43 Fed. Reg. 9607. The 1978 listing rule remains in effect today; and, in it, the U.S. Fish and Wildlife Service (USFWS) "offer[s] the firmest assurance that it will continue to

recognize valid biological subspecies for purposes of its research and conservation programs." As firm evidence of this commitment, the USFWS developed and approved a *Mexican Wolf Recovery Plan* in 1982; and, in 1998, pursuant to Section 10(j) of the ESA, 16 U.S.C. §1539(j), authorized the establishment of an "experimental, non-essential" (ENE) population of the "Mexican gray wolf" in Arizona and New Mexico. See 63 Fed. Reg. 1752. Establishment of a population of Mexican gray wolves in the Blue Range Wolf Recovery Area (BRWRA) was initiated in 1998 and continues to this day.

We take issue with the taxonomic nomenclature used in the title of the document currently under review (72 Fed. Reg. 44065). The current population of wolves extant in Arizona and New Mexico is a population of the Mexican gray wolf subspecies of the gray wolf. See 63 Fed. Reg. 1752. Thus, the title of this document should be changed to the "Proposed Amendment of the Rule Establishing a Nonessential Experimental Population of the Mexican Gray Wolf in Arizona and New Mexico." The USFWS cannot arbitrarily change the taxonomic basis of the current final rule (63 Fed. Reg. 1752) that is under consideration for amendment.

Authorized "Take" of Mexican Wolves under the Existing Rule

Due to the ENE status of the Mexican gray wolf, USFWS has altered the "take" prohibitions found in Section 9 of the ESA, 16 U.S.C. § 1538(a)(1), as they apply to this subspecies. These modifications to the take prohibitions are set forth in the Section 10(j) rule, 50 C.F.R. § 17.84(k) for the BRWRA population of Mexican gray wolves. This rule has very few absolute provisions that provide immediate, non-discretionary authorization for taking (*i.e.,* killing, harming, harassing, or permanently removing) Mexican wolves from the established ENE population in the BRWRA. Specifically, these are:

Section (k)(3)(i): Unavoidable and unintentional take pursuant to an otherwise legal activity anywhere within the experimental population area.

Section (k)(3)(ii): Opportunistic, noninjurious harassment of Mexican wolves within 500 yards of people, buildings, facilities, pets, and livestock anywhere within the experimental population area.

Section (k)(3)(iii): Unavoidable or unintentional take resulting from an action authorized by a federal agency anywhere within the experimental population area, provided such agencies are otherwise in compliance with sections 7(a)(1&4) of the ESA.

Section (k)(3)(v and vi): Take by livestock owners or their agents of any wolf actually "engaged in the act of killing, wounding, or biting livestock" on private and tribal reservation land.

Section (k)(3)(viii): Take of Mexican wolves by livestock guarding dogs when used in the traditional manner to protect livestock anywhere within the experimental population area.

Section (k)(3)(x): Take of any suspected wolf hybrid or feral dog by the USFWS or its authorized agent anywhere within the experimental population area.

Section (k)(3)(xii): Take of Mexican wolves in self defense or defense of the lives of other humans anywhere.

Section (k)(9)(iii); Section (k)(10); Section (k)(11): Take by the USFWS or its authorized agent of Mexican wolves found outside the BRWRA.

We are aware of only one Mexican wolf that has been lethally taken by a private person in a manner interpreted to be legal under these non-discretionary take provisions; he was killed in alleged self defense and reported as required by the rule. Ten additional wolves have been killed by vehicle strikes but not reported. Had they been reported, these takings would have been legal under the rule. Thus, these provisions have caused only 11 wolves to be removed from the wild BRWRA population by non-governmental persons in the nearly 10-year history of its existence. Many additional Mexican wolves have died or have been seriously injured as a result of authorized agency capture or lethal take efforts under 50 C.F.R. § 17.84(k)(3)(iii), (k)(9)(iii), (k)(10), and (k)(11). The adverse effects of wolf removals by the agencies are addressed below.

We request that take provisions currently authorized by Section 17.84(k)(9)(iii), (k)(10), and (k)(11) be eliminated from any revised rule for reasons set forth later in these comments. Furthermore, we request that any revised rule not directly authorize take in excess of that allowed by the other sections listed above.

The current rule authorizes the USFWS to prescribe additional circumstances for taking Mexican wolves within a USFWS-approved "management plan, special management measure, or permit." 50 C.F.R. § 17.84(k)(3)(ix). This discretionary authority to prescribe additional take was included in the rule to give the USFWS and its cooperators added "management flexibility" to mitigate conflicts that might occur following the return of Mexican wolves to the BRWRA. A number of such approved measures termed "Standard Operating Procedures" (SOPs) are currently in effect.

ESA § 10(j)(2)(A) authorizes the Secretary of the Interior to release experimental populations of endangered and threatened species only "if the Secretary determines that such release will further the conservation of such species." The ESA further defines "conservation" as "the use of all methods and procedures which are necessary to bring any endangered species … to a point at which the measures provided pursuant to this Act are no longer necessary," or in other words, to a point at which the species has been recovered and thus removed from the ESA list of endangered and threatened species. 16 U.S.C. § 1532(3). Importantly, the ESA's definition of "species" includes any subspecies. Id., at § 1532(16).

Section 17.84(k)(2) of the current rule presents a "finding" that the reintroduction authorized by the rule will "further the conservation of the Mexican wolf subspecies and the gray wolf species." This finding followed a determination that the provisions of the

rule were sufficiently protective to ensure progress toward eventual recovery of the Mexican wolf.

Page 2-16 of the Final EIS clarifies that the USFWS will use the "greatest degree of management flexibility" granted through discretionary rule provisions to mitigate potential impacts of the BRWRA Mexican wolf reintroduction project to achieve "the least impact on private activity **consistent with wolf recovery"** (emphasis added).

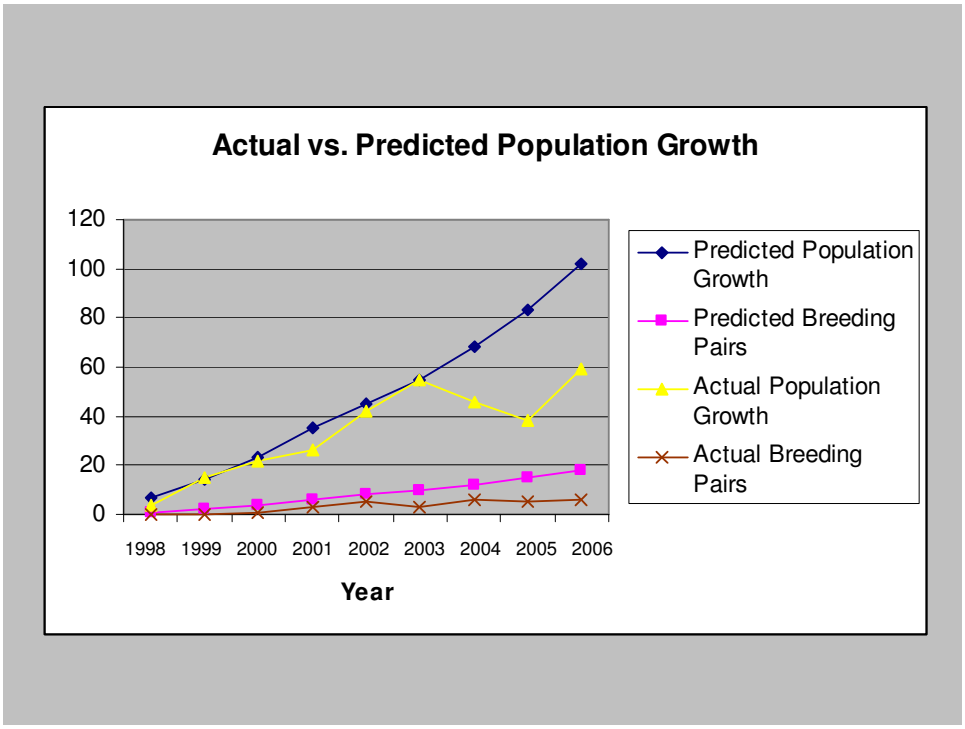
Thus, the ESA and the documents authorizing the establishment of an ENE population of Mexican gray wolves within the BRWRA clearly require that authorized take of Mexican wolves from the BRWRA population shall not preclude progress toward recovery of the subspecies.

BRWRA Mexican Gray Wolf Reintroduction Project Objective

The primary objective of the BRWRA reintroduction project is to establish a viable, self-sustaining population of at least 100 Mexican gray wolves in the wild. This objective is set forth in the final Environmental Impact Statement (EIS) and is consistent with the 1982 Mexican Gray Wolf Recovery Plan, 1998 Record of Decision and Final Rule. At page 2-5, the EIS further establishes the chronological objective of achieving the 100-wolf population level by "about the year 2005." Because the reintroduction project commenced one year later than planned, this goal becomes effectively "about the year 2006." The population growth model in the EIS also predicted that a population of 102 wolves (achieved at the end of 2006) would include 18 breeding pairs. The established timeline has run its course, and we now have the opportunity to assess progress toward the established reintroduction objective using actual results. There are three key components to the reintroduction objective—numerical (100+ wolves); viability; and self-sustainability.

Analysis of Progress Toward Recovery under Existing Rule

Numerical Population Objective. In its 2006 Annual Report (the most recent program assessment), the USFWS estimated the wild population at 59 wolves with 7 breeding pairs. The chart below compares actual versus predicted growth for the BRWRA Mexican wolf population.



According to project data, the population has grown by only an estimated 4 wolves in the past three years and is currently 41% short of the minimum objective of "at least 100 wolves." The actual number of breeding pairs lags the expected number by 11 breeding pairs (7 vs. 18).

To date in 2007, 28 Mexican wolves have gone missing, been killed, or been removed from the wild population. Nineteen of these removals were ordered by USFWS and conducted by the Interagency Field Team. Only 8 pups are currently confirmed in the wild population. When next the official count is made in January 2008, a population decline in both wolf numbers and breeding pairs appears certain.

According to the existing rule a "breeding pair" is defined as "an adult male and an adult female wolf that have produced at least two pups during the previous breeding season that survived until December 31 of the year of their birth." Data presented in monthly project reports suggest that only 3 breeding pairs will be documented at the end of 2007. The management objective for 2007 as stated in the 2006 Annual Report is to increase the population by 10% (~6 wolves) or increase the number of breeding pairs by one breeding pair (from 7 to 8). Monthly project updates through November cause us to conclude that neither of these objectives will be met. Rather, it now appears that the population will decline by about 20 wolves and 4 breeding pairs.

Clearly, the USFWS has failed to meet the numerical objective of at least 100 wolves by about the end of 2006, and there is no evidence to suggest that the current population is on a growth trajectory to reach that goal in the foreseeable future.

Population Viability. Since numerical population objectives for full recovery of the Mexican gray wolf have not been established for lack of a revised recovery plan, this analysis will be limited to the genetic viability of the existing wild population in the BRWRA. All Mexican wolves derive from one or more of three certified pure lineages of Mexican wolves—McBride, Ghost Ranch, and Aragon—each of which is individually inbred. A recent analysis by Fredrickson et al. (2007) concludes that cross-lineage wolves (those with ancestry from two or more lineages) exhibited superior fitness compared to single-lineage Mexican wolves, especially McBride wolves which they describe as having "low fitness" in the wild. Of wolves with known ancestry in the BRWRA population, more are of pure McBride lineage than of any other lineage. Fredrickson et al. (2007) found that "in the wild population, 52% more pups were observed among packs producing cross-lineage pups than those producing pure McBride lineage pups."

Each of the three lineages has "substantial numbers" of unique alleles (gene forms) which create "large heterotic effects" (improved fitness in offspring of cross-linage matings). According to Fredrickson and colleagues, proper genetic management of the wild BRWRA population of Mexican wolves through carefully planned mixing of genes from the three lineages can result in a "genetic rescue" of the wild population.

A genetically rescued population of Mexican wolves would have increased reproductive success and survival, greater overall genetic diversity, and an increased capability to evolve and adapt to their natural environment through the process of natural selection. Such increased evolutionary potential is termed "genetic restoration" and Fredrickson et al. conclude that Mexican wolves have the genetic potential to "establish vigorous wild populations."

The USFWS and its cooperators have promulgated no formal management procedures or guidelines for improving or maximizing the genetic integrity and viability of the BRWRA population of Mexican wolves. In fact, management actions to date have been antithetical to genetic fitness. SOP 13, which sets criteria for removing wolves that engage in livestock depredation, does not consider the genetic value or reproductive status of wolves targeted for lethal control or permanent removal. The most egregious example of this "tunnel vision" management was the killing of Saddle Pack alpha male AM574 who was a genetically irreplaceable McBride x Aragon lineage Mexican wolf considered to be the sixth most genetically valuable Mexican wolf in the combined wild and captive population of over 350 wolves (see e-mail memorandum from Colleen Buchanan to Susan MacMullin dated 4/06/2004 at 2:06 PM).

This is not the only incident where genetic considerations were ignored. In fact, in late 2007, the USFWS removed of all 6 members of the genetically valuable Aspen pack (a bi-lineage alpha male and a tri-lineage adult female).

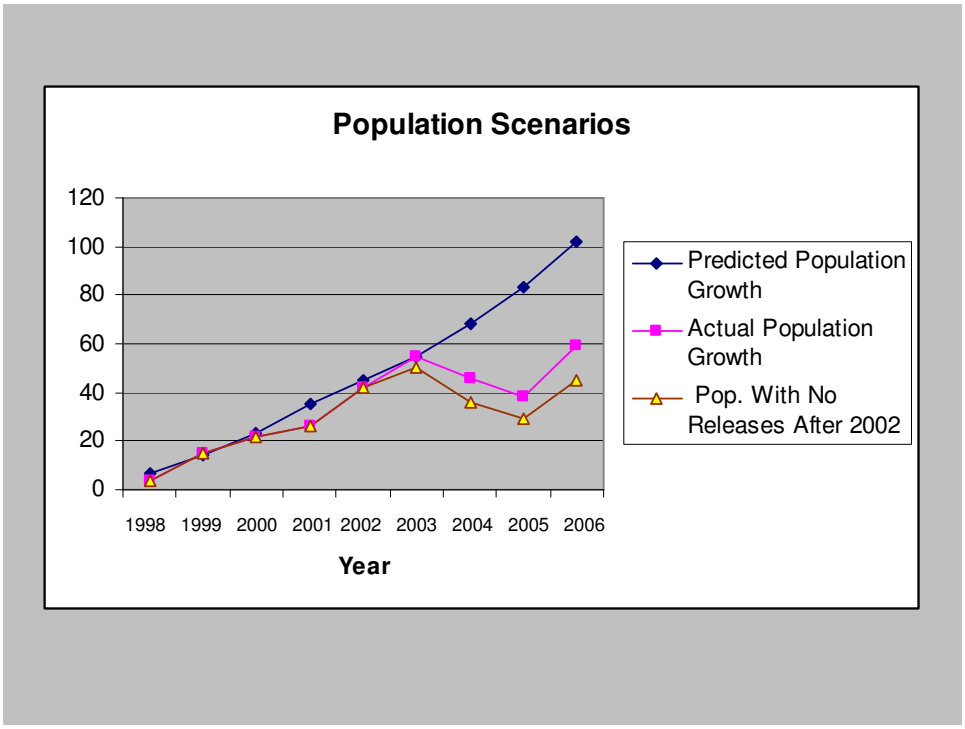
We are aware of no example of a management decision to allow a genetically important Mexican wolf to remain in the wild when current procedures otherwise call for its lethal control or permanent removal. Even if genetically important pups are left in the wild, the

removal of one or more of their parents, adult pack members, or yearling pack members will diminish their probability of survival.

Population Self-Sustainability. A "self-sustainable" population is a population that perpetuates its continued existence through successful reproduction and survival such that new recruits to the population equal or exceed losses from various sources of mortality or permanent removal by wolf managers. This objective applies to the BRWRA population of Mexican wolves after it reaches the 100+ wolf population objective. Until then, recruitment to the population must exceed mortality plus permanent removals to achieve incremental population growth.

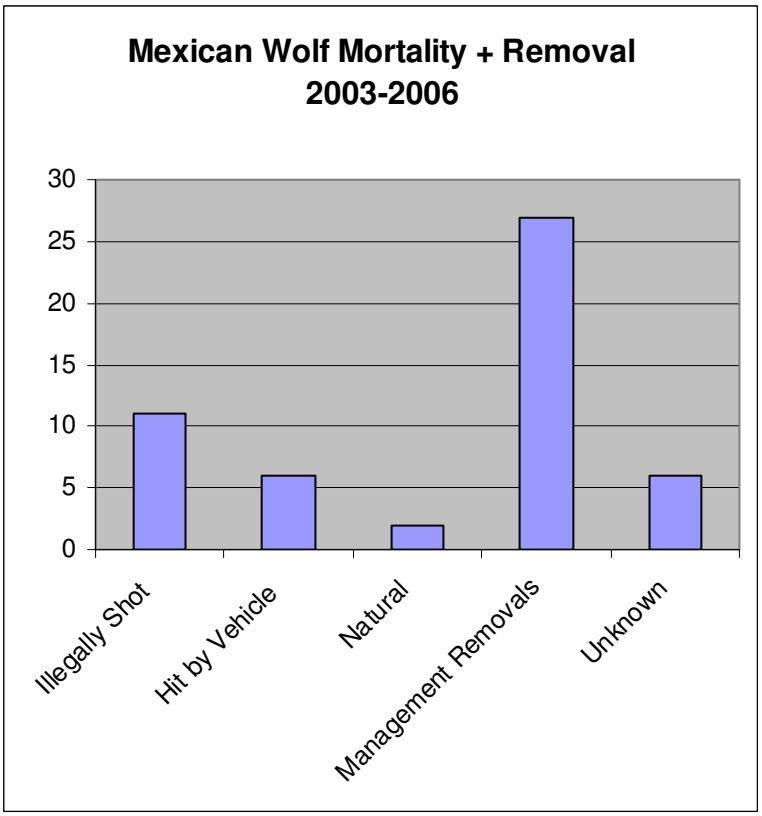
The population growth model used in the EIS to predict a plausible population growth scenario and establish a reasonable timeline for achieving the 100+ wolf objective included an assumption that releases of new wolves would no longer be necessary after the year 2002. The EIS predicted that about 66 wolves would be released from 1998 through 2002 and that natural reproduction and survival in the wild would continue to grow the population until the objective was met. In actual practice, 99 captive Mexican wolves have been released from 1998 through 2006.

Parsons and Ossorio (2007; and attached as part of these comments) conducted an analysis of project data through 2006 entitled: *Mexican Wolf Reintroduction: Put and Take Wolf Recovery?* The purpose of this analysis was to examine the effect of management control on population growth and the extent to which continued wolf releases might be masking these effects. We presented our results at the 2007 North American Wolf Conference (oral presentation) and at the 2007 annual meeting of the American Society of Mammalogists (poster presentation). As part of this analysis, we followed the known fates of wolves released after 2002 and the fates of their known wild-born offspring and excluded these wolves from the population. The chart below shows how the wild population might have fared absent these continued releases.



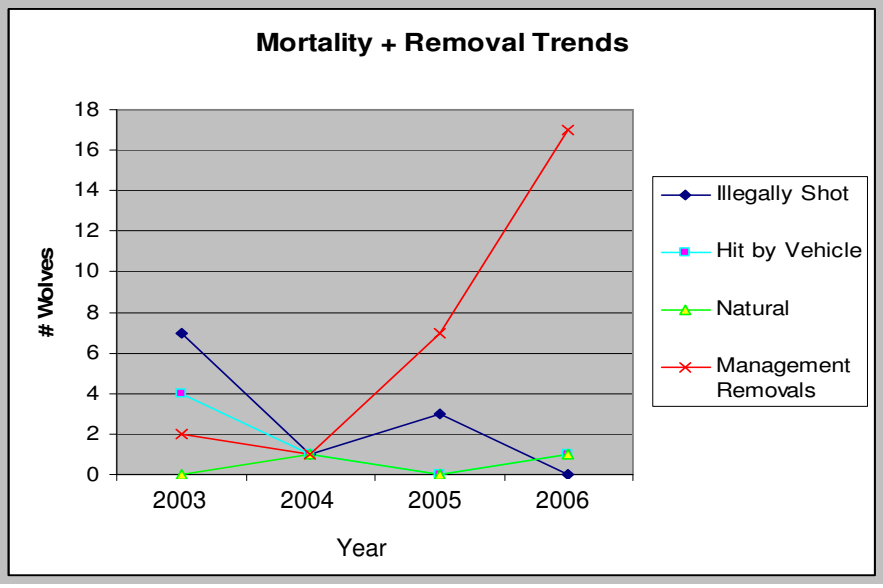
We showed that, absent continued releases, the population would have peaked at an estimated 50 wolves at the end of 2003 and declined to an estimated 45 wolves at the end of 2006. We concluded that the agency-reported population increase of an estimated 17 wolves over the past 4 years was mostly "release subsidized," and that mortality plus permanent removals had exceeded natural recruitment. Permanent removal of Mexican wolves by agency managers has the same effect on the wild population as mortalities from all causes (legal or illegal), including lethal control of wolves by the managing agencies.

The following chart shows the sources of mortality of wild Mexican wolves over the past 4 years.



Management removals accounted for 52% of all documented mortality and permanent removals over the past 4 years; and illegal killing accounted for an additional 21%. Agency managers have little or no control over the other causes; and all causes except management removals have declined or remained low over the past 4 years (see chart below). Management removals have increased dramatically over the past two years, coinciding with implementation of SOP 13.

"As the Reintroduction Project moves forward, we expect removal rates for causes other than boundaries to stabilize or decrease." AMOC: 5-Year Review.



In 2006, nearly 90% of all management removals and lethal control were in response to livestock depredation and were carried out under the terms of SOP 13. Parsons and Ossorio (2007) concluded that the wild population of Mexican wolves was "take limited," due primarily to excessive permanent removals and lethal control by the agencies. Most of this take is pursuant to SOP 13. It is important to note that SOP 13 is a discretionary management measure, which is allowed *but not mandated* by the existing rule.

We conclude that the wild BRWRA population of Mexican gray wolves is not self-sustainable under current implementation of the existing rule.

Rule Revision Recommendations. The USFWS has demonstrated that it cannot be trusted with the level of discretionary management authority granted by the current rule. Having failed to meet all three components of the established reintroduction objective—a viable, self-sustaining population of at least 100 Mexican gray wolves in the BRWRA by about the year 2006—the USFWS has clearly failed to achieve the "conservation" mandate of ESA § 10(j)(2)(A). By logical extension, the USFWS is now in ongoing violation of the ESA.

To bring the USFWS back into compliance with federal law, any revision to the rule must contain absolute requirements for demonstrated forward progress toward meeting the reintroduction objective. We consider a minimum standard for such progress to be an average population increase of at least 15% per year and an annual increase of at least two breeding pairs. This is well within the reproductive capacity of Mexican gray wolves, especially if properly managed, and would cause the reintroduction objective to

be reached in four more years. (Note: This could also be accomplished under provisions of the existing rule.)

Any revision to the rule must contain absolute requirements for achieving a high standard of genetic viability in the reintroduced population. This standard should be established by recognized experts on Mexican wolf genetics in consultation with the Mexican Wolf Species Survival Plan committee of the Association of Zoos and Aquariums. This body actively manages the genetic and demographic integrity of the captive population of Mexican wolves and makes recommendations for release candidates.

Any revision to the rule must contain absolute thresholds for self-sustainability of the wild population through natural reproduction and survival in the wild that cannot be overridden by discretionary management measures (such as is currently the case with SOP 13) or masked by supplemental releases.

Three-Year Review Recommendations

In 2001, a mandatory 3-year review of the project was conducted by a panel of non-agency wolf experts led by internationally recognized wolf ecologist Dr. Paul Paquet (Paquet et al. 2001). Crucial findings from the technical component of the 3-year review include the following:

- Frequent recaptures and re-releases may be interfering with pack formation and establishment and maintenance of home ranges.
- Survival and recruitment rates are far too low to ensure population growth and persistence. Without dramatic improvement in these vital rates, the population will fall short of predictions for upcoming years—a prediction that has come true..
- Livestock are omnipresent in the BRWRA and interactions with wolves are unavoidable. Livestock producers using public lands can make a substantive contribution to reducing conflicts with wolves through improved husbandry and better management of carcasses.
- The small size of the primary recovery zone and the restriction of wolves to the small BRWRA are hindering recovery of a self-sustaining and viable population of Mexican wolves. Dispersal of wolves outside the recovery area boundaries is required if the regional population is to be viable.
- Individual wolves have shown some indication of dispersing outside the recovery area. This is to be expected and required if the regional population is to be viable.
- Adaptive management is the appropriate operational paradigm. Many wildlife restoration projects are unsuccessful because of a failure to accommodate new information. (In other words, the failure to appropriately apply an adaptive management process.)

Rule Revision Recommendations. Based on the findings of the three-year review we make the following requests:

Revise the rule to include authority to conduct initial releases of captive wolves anywhere within the BRWRA. This authority will be critical to managing the future genetic and demographic integrity of the wild population.

Eliminate all restrictions to wolf dispersal and movements. Such restrictions are potential impediments to yet to be defined recovery goals and necessary conservation actions. Occupation of areas beyond the BRWRA will be required to achieve full recovery of Mexican wolves. Natural dispersal may be the most effective means of establishing Mexican wolves in new areas and will be critical for wolf movements among core populations. Such movements will be essential to the maintenance of viability within a recovered metapopulation of Mexican wolves. No other gray wolf recovery program has such restrictions on wolf movements.

Require livestock operators on public land to remove, bury, or render inedible carcasses of dead livestock to reduce the likelihood that wolves become habituated to feeding on livestock. It cannot be disputed that wolves are attracted to, and will feed on, dead livestock. This often places wolves in close proximity of living stock. It also cannot be disputed that some wolves that have first scavenged dead livestock have subsequently preyed upon livestock. Given that the BRWRA population of Mexican wolves has failed to attain the reintroduction objective, it is imperative that all measures to reduce potential conflicts between wolf recovery and livestock production (the greatest cause of wolf removals) be considered in a revised rule.

Five-Year Review Recommendations

On December 31, 2005 the Mexican Wolf Adaptive Management Oversight Committee (AMOC) issued the internally-conducted 5-Year Review of the BRWRA Reintroduction Project. This review presented 37 recommendations for modifying the BRWRA reintroduction project, all of which were accepted by the USFWS as part of a formal decision to continue the project with modifications. The 5-Year Review document states that "all actions undertaken pursuant to these Recommendations and the Standard Operating Procedures (SOPs) referenced therein shall be in full compliance with the … Endangered Species Act, as amended." Recommendations 4 through 14 relate specifically to a revision of the existing ESA § 10(j) rule for the BRWRA population of Mexican gray wolves.

4. AMOC recommends that any amended or new Mexican Wolf Nonessential Experimental Population Rule drafted in conjunction with Recommendations (1) and (2), above, not include White Sands Missile Range as a Mexican Wolf Recovery Area (i.e. its designation in the current Final Rule) or as a Reintroduction Zone.

We agree that White Sands Missile Range is not suitable as a "reintroduction" zone. We disagree that it should be specifically excluded as a Mexican wolf "recovery" zone. We believe and recommend that there be no recovery boundaries or exclusions and that Mexican wolves be allowed to colonize areas of their own choosing. White Sands Missile Range may be an important "stepping stone" habitat for wolves dispersing to

other suitable habitats. One major advantage of White Sands Missile Range is that wolves would be highly protected there.

5. AMOC will determine, on biological/ecological grounds, and conclude in a written report to the USFWS Region 2 Director no later than June 30, 2006, whether (and, if so, the extent to which) the current MWEPA outer boundaries should be expanded within Arizona-New Mexico to enable the Arizona-New Mexico Mexican wolf population to exist within a metapopulation context consistent with Leonard et al. 2005 and Carroll et al. in press. AMOC may convene, if necessary, a technical advisory group of individuals with appropriate expertise to assist with this assessment. Note:

a. The AMOC assessment will also consider other relevant issues, such as: likelihood of expansion area occupancy by wolves dispersing from northerly states or from Mexico; the merits of extending nonessential experimental population status beyond the current boundaries; and estimated costs associated with managing wolves in an expanded area.

b. The technical advisory group, if convened, shall be chaired by an AMOC representative and shall include no more than 15 other members, each with appropriate scientific expertise.

c. AMOC will advocate that the MWEPA recommendation constructed under Recommendations (1) and (2), above, allow wolves to disperse from the BRWRZ (see Recommendation [7], below) throughout the MWEPA, subject to management consistent with current Blue Range Reintroduction Project SOPs.

d. Any recommendation to amend the existing Final Rule or to create a new Final Rule would ultimately, if acted on by USFWS, be in full compliance with all applicable APA, ESA, FACA, and NEPA requirements.

We believe that the priority decision AMOC and USFWS should be addressing is whether or not to rescind the requirement that wolves establishing territories wholly outside the recovery area boundary must be removed, rather than whether or not to expand the experimental population area boundary. Management under current SOPs has not only failed to achieve the BRWRA reintroduction objective, but has also failed to conserve Mexican wolves as required by the ESA. Results to date support our request that restrictions to wolf dispersal from, and occupancy of habitats outside, the BRWRA should be removed and that the reintroduced population should be reclassified as either a fully protected endangered species in its own right or as "experimental, essential" in order to make adequate progress toward recovery as mandated by the ESA. An expansion of the experimental population area is not necessary to enable an expanded Mexican wolf metapopulation throughout its historic range. What appears to be clearly needed is the removal of restrictions to wolf movements and occupancy of areas outside the BRWRA and increased protection of the reintroduced population—actions clearly supported by information presented in the technical component of the 5-Year Review.

6. AMOC will propose, within the context of Recommendation (5), above, that the MWEPA population (management) objective be to establish and maintain a total of at least 100 wolves.
Note: The Reintroduction Project's population (management) objective is not a recovery goal for delisting the Mexican wolf from the list of threatened and endangered species; an updated recovery goal covering the Blue Range has not yet been determined by a Recovery Team. A population (management) objective of at least 100 wolves is, however, consistent with the Mexican Wolf Recovery Plan (USFWS 1982), Final Environmental Impact Statement (USFWS 1996), and Record of Decision for Mexican wolf reintroduction within the BRWRA of the MWEPA (USFWS 1997).

This recommendation is completely outside the management purview of the AMOC and we request that this recommendation be eliminated and its content not be considered within the context of the rule revision process and related National Environmental Policy Act (NEPA) process. The objective of at least 100 wolves has been clearly established and approved in other project documents. The objective applies to the currently defined Mexican Wolf Blue Range Recovery Area, not the experimental population area (MWEPA), and not to any future expanded experimental population area. This recommendation has the potential to preclude or obfuscate future recovery recommendations and decisions which are the purview of a Recovery Team and the USFWS, not the AMOC.

7. AMOC will propose, within the context of Recommendation (5), above, combining the current BRWRA Primary and Secondary Recovery Zones, the Fort Apache Indian Reservation, and/or any other appropriate contiguous areas of suitable wolf habitat into a single expanded Blue Range Wolf Reintroduction Zone (BRWRZ) and allowing initial releases and translocations throughout the BRWRZ in accordance with appropriately amended AMOC SOPs 5.0: Initial Wolf Releases and 6.0: Wolf Translocations.

We agree that initial releases and translocations should be allowed anywhere within the BRWRA, and we support similar measures on the Fort Apache Indian Reservation and on any other Tribal or private lands whose owners elect to participate in Mexican wolf recovery. However, we cannot agree to an expansion of the geographic scope of the BRWRA without a concomitant increase in the numerical objective, which as stated above is outside the purview of the AMOC. The AMOC's job is to find a way to establish a viable, self-sustaining population of Mexican gray wolves within the currently defined BRWRA. This was determined to be a feasible objective in the EIS and related decision documents, and no evidence has been presented that this has now been determined to be an impossible task. A related point of clarification is that, while Mexican wolf reintroduction and recovery efforts on the Fort Apache Indian Reservation are an important contribution to the eventual full recovery of the Mexican gray wolf, success there, or anywhere else outside the defined BRWRA, should not "count" toward the 100+ objective for the BRWRA. Just as the White Mountain Apache Tribe elected to participate, they could subsequently elect to end their participation anytime they choose.

8. AMOC will propose, within the context of Recommendation (5), above, prohibiting initial releases outside the new BRWRZ, except as necessary to allow latitude for any new Tribal "Statement of Relationship" based agreements with USFWS within the MWEPA that might allow initial releases on Tribal Trust Lands.

The AMOC should limit its involvement to the current reintroduction project, and it is not the appropriate administrative body to issue prohibitions on releases outside the BRWRA or an expanded BRWRZ. Recovery planning is the appropriate process for determining the need and scope of future reintroductions, and the recovery planning process is outside the purview of the AMOC. We request that this recommendation from the Five-Year Review not be considered in the rule revision process.

9. AMOC will propose, within the context of Recommendation (5), above, that wolves occurring within the MWEPA (but outside the re-defined BRWRZ) that must be relocated to address nuisance or livestock depredation issues (per AMOC SOP 13.0: Control of Mexican Wolves), may be translocated anywhere within the MWEPA except into the BRWRZ. Conversely, AMOC will also propose, within the context of Recommendation (5), above, that wolves occurring within the BRWRZ that must be relocated to address nuisance or livestock depredation issues (per SOP 13.0) may only be translocated to other areas within the BRWRZ. Regardless, all translocations must be carried out in accordance with AMOC SOP 6.0: Wolf Translocations.

The logic behind this recommendation is not evident from its content. It is antithetical to the adaptive management process and specifically to enhancing genetic vigor through relocations based on genetic characteristics and pack composition. It reaches a decision without any discussion or justification. We request that it be eliminated and not considered in this rule revision process.

10. AMOC will propose, within the context of Recommendations (5) and (6), above, that States and Tribes be authorized to issue permits, in accordance with an appropriately revised AMOC SOP 13.0: Control of Mexican Wolves, to private individuals and/or their delegated representative(s) to use authorized non-lethal means (e.g. cracker shells, rubber bullets) to harass wolves engaged in nuisance behavior or livestock depredation, or which are attacking domestic pets on private, public, or Tribal Trust lands, and to take (i.e. permanent removal by authorized lethal means) wolves in the act of attacking domestic dogs on private or Tribal Trust lands.

TRI can support the issuance of permits for the non-lethal and non-injurious harassment of Mexican wolves engaged in nuisance behavior or attacking livestock or pets. We cannot support, nor does the 5-year technical review and subsequent project data support, the issuance of permits to kill Mexican wolves in the act of attacking dogs. We believe this is another glaring example of the disregard of the adaptive management process. The technical component of the 5-year review and the Parsons-Ossorio "put and take" analysis clearly show that more wolves need to survive in order to make progress toward the reintroduction population goal. As demonstrated above, but for continued new releases, the BRWRA population would be declining; and, incredibly, the AMOC is

recommending measures that will further reduce the survival of wolves. An additional problem with allowing the take of wolves attacking dogs is the creation of an opportunity for "baiting" wolves into a fight with dogs for the purpose of legally shooting them. This would greatly frustrate law enforcement investigations to determine the legality of wolf killings by private individuals.

11. AMOC will propose, within the context of Recommendations (5) and (6), above, that, when the MWEPA population (management) objective estimate on December 31 for two sequential years is 125 wolves or more, in each immediately subsequent year the States of Arizona and New Mexico and any Tribal AMOC Cooperators may:

a. Take (i.e. permanently remove by any authorized means) as many wolves as necessary, above a MWEPA baseline of 125 wolves, to resolve documented wolf nuisance and livestock depredation incidents, consistent with AMOC SOP 13.0: Control of Mexican Wolves;

b. Issue State or Tribal permits to private individuals to take (i.e. permanently remove by any authorized means) as many wolves as necessary, above a MWEPA minimum baseline of 125 wolves, to resolve documented wolf nuisance and livestock depredation incidents, consistent with AMOC SOP 13.0: Control of Mexican Wolves;

c. Take (i.e. permanently remove by any authorized means) as many wolves as necessary, above a minimum baseline of 125 wolves, to resolve local unacceptable impacts on native ungulate populations.

Note: Unacceptable impacts" will be defined in AMOC's recommended Mexican Wolf Nonessential Experimental Population Rule (see Recommendations [1] and [2], above).

We strongly disagree with Recommendation #11, in which the AMOC recommends what would amount to a cap of 125 wolves in the Mexican Wolf Experimental Population Area (MWEPA). The MWEPA is substantially larger than the BRWRA, which has an established objective of "at least" 100 wolves, with no stated cap. And AMOC is exploring the idea of expanding the MWEPA boundaries to some unspecified extent. Theoretical analyses based on the estimated prey biomass of the existing BRWRA suggest that it, alone, could support 213-468 wolves. See 5-Year Review, at TC-18. Expanding a reintroduction goal that can and should be met within the BRWRA to the much larger MWEPA is inappropriate and not supported by the ESA or any authorized project document. Recommendations regarding population size fall clearly within the purview of the Recovery Team, not AMOC. Furthermore, a population of 125 Mexican wolves would most likely have an effective population (Ne) size of <50 wolves. Conservation biologists would agree that an effective population this small would have a high probability of extinction (*i.e.,* not be viable over the long term) and would not be an appropriate recovery goal. Allowing this magnitude of take above and beyond the population cap effectively sets the recovery threshold at 125 individuals for some yet-to-

be-defined geographic area that may be substantially larger that the current MWEPA. We emphatically reiterate that this type of unilateral, de facto recovery planning is inappropriate for the AMOC.

In light of the gross inappropriateness of Recommendation #11 on policy, procedural, and scientific grounds, we formally request that the USFWS reject this recommendation from the AMOC and that it receive no consideration in the rule revision process.

12. AMOC will develop, no later than June 30, 2006, a report describing a proposed Federally, State, and/or Tribally-funded incentives program to address known and potential economic impacts of wolf nuisance and livestock depredation behavior on private, public, and Tribal Trust lands. AMOC may convene, if necessary, a technical advisory group of individuals with appropriate expertise to assist with this task. The conservation incentives discussion will consider all relevant livestock depredation issues, including: livestock depredation prevention; livestock depredation response; carcass discovery, monitoring, removal, burial, and/or destruction; and possible adjustment of the Federal grazing (AUM) fee (and any Tribal grazing subsidies) within the MWEPA to provide de facto compensation for documented and likely undocumented losses of livestock. The AMOC report shall also include a thorough evaluation of the effectiveness and procedural efficiency of the Defenders of Wildlife wolf depredation compensation fund, and provide recommendations for appropriate improvements.
Mexican Wolf Blue Range Reintroduction Project 5-Year Review December 31, 2005
ARC-6

Note:
a. The technical advisory group, if convened, shall be chaired by an AMOC representative and include a maximum of 15 other members, each with appropriate expertise.
b. AMOC as a body will not advocate regulatory changes to address carcass removal or disposal issues (but see Recommendation [12], above, regarding a process by which AMOC will explore possible mechanisms to address this issue).

AMOC's unwillingness to advocate regulatory changes to address carcass removal or disposal is yet another example of failure to use the discretion delegated to it to adaptively manage to promote recovery of the subspecies and should not preclude such consideration in this rule revision process. Addressing the issue of carcass management has the potential to increase survival of Mexican wolves in the BRWRA.

13. AMOC will convene a stakeholders group to assist AMOC in evaluating, and reporting in writing no later than December 31, 2006, social (human and socioeconomic) implications (including estimated annual livestock depredation losses) for any boundary expansions recommended per Recommendation (5), above.

Note: The stakeholders advisory group will be Co-Chaired by an AMOC representative and an AMWG Cooperator (County) representative, and include a maximum of 50 other

members, representing, insofar as is possible, the full spectrum of stakeholders. This group will comply with FACA, if necessary.

TRI requests that this recommendation be eliminated. We believe that stakeholder groups can be effective when tasks are explicitly and narrowly defined and program goals are universally accepted by participating stakeholders. However, we have observed that stakeholder processes used within the context of the Mexican Wolf Recovery Program have not worked well, resulting in no meaningful progress and unacceptable delays in implementing important management actions or policy changes. We believe that this is due in large part to the strong, and mostly irreconcilable, clash of values that exists among stakeholder participants. Additionally, we believe this recommendation is inappropriate because the task it proposes to delegate to a stakeholder group will be undertaken as part of the NEPA review of the proposed rule revision.

14. No later than December 15, 2006, AMOC will complete a detailed plan for another Reintroduction Project Review.

Note: The Reintroduction Project Review will be conducted in 2009-2010 and completed no later than December 31, 2010.

This recommendation should be eliminated. A properly conducted, science-informed adaptive management process with a robust monitoring component should eliminate the need for additional formal project reviews (Borman et al. 1999). Existing annual reports should provide pertinent and adequate information for guiding the adaptive management process. The three- and five-year reviews conducted to date have been excessively lengthy in terms of time, excessively costly in terms of financial and staff resources, and generally unproductive in terms of adopted recommendations that will serve to improve the success of the program. No such additional project reviews beyond the annual reports should be required in a revised rule.

The Five-Year Review Recommendations Violate NEPA

Throughout all of the 5-year review recommendations we note a pre-decisional assumption that a revised rule will continue the previous designation of the BRWRA Mexican gray wolf population as a "nonessential experimental" population. We have demonstrated that this designation has not contributed to the conservation of the Mexican wolf by failing to achieve established objectives. This a priori declaration is a violation of NEPA which requires the evaluation of a full range of reasonable alternatives prior to a final decision. See 40 C.F.R. § 1502.14; see also Van Abbema v. Fornell, 807 F.2d 633, 638 (7th Cir.1986) (holding that because alternatives analysis is not subordinate to desires of the project proponent, reasonable alternatives should be identified by reference to a project's general purpose, not the proponent's narrow objective).

The Recovery Plan Problem

ESA§ 4(f)(1) mandates that the Secretary "shall develop and implement…'recovery plans' for the conservation and survival of endangered species…." The Mexican Wolf Recovery Plan was approved and adopted in 1982. USFWS policy requires that recovery plans be reviewed every five years and updated or revised if they are out of date or not in compliance with the ESA. The Mexican Wolf Recovery Plan (USFWS 1982) has never been updated or revised, despite the fact that it fails to comport with the ESA in two important ways. First, the Mexican Wolf Recovery Plan does not contain "objective, measurable criteria which, when met, would result in a determination…that the species be removed from the list." 16 U.S.C. § 1533(f)(2)(B)(ii). Second, the Recovery Plan does not contain a detailed scheme for fully recovering Mexican wolves throughout all or a significant portion of their historic range, *i.e.,* an actual plan for delisting the subspecies. See id., at §§ 1532(6) and (20).

The current Mexican Wolf Recovery Plan, which has been in effect in its original form for 25 years, is in critical need of revision. Recovery teams include a body of scientific experts who review and consider the best available scientific information and make science-based recommendations to the FWS as to recovery requirements for the species. The USFWS initiated a recovery plan revision process in October 2003, but suspended that effort in January 2005. The original reasons offered by USFWS, if ever supportive of the hiatus, lost all logic and effect in December 2005, when the USFWS determined that it would not appeal the judiciary's rejection of the USFWS proposed distinct population segments in the 2003 downlisting rule for the gray wolf. The FWS has shown no intent to reinitiate the recovery planning process for the critically endangered Mexican wolf.

The current rule for the BRWRA ENE population of Mexican wolves has been effect for nearly 10 years and the process to revise it will likely take at least 2 additional years. We must assume that a revised rule would have a similar life span of a decade or more. We also must assume that a revised recovery plan will be approved very early in the existence of a revised rule for the BRWRA Mexican wolf population. No changes to the existing rule that would constrain future recovery options or decisions, including its geographic scope outside the currently defined BRWRA, should be made. Above, we identify recommendations from the 5-Year Review that would have such constraining or adverse effects on future recovery planning. Rule changes that would not be appropriate prior to a revised and approved recovery plan would include:

- Any changes to the existing experimental population area boundary, unless the change is to eliminate or reduce the size of the experimental population area.
- Any designated or de facto numerical cap or any take authorizations which could have the effect of a numerical cap on the number of wolves in the wild population.
- Any exclusion of geographic areas from potential occupation by wolves.

- Any non-discretionary provisions for taking Mexican wolves in that portion of the experimental population area that lies outside the boundaries of the BRWRA, except for the protection of human life.

Given that adequate protection and discretionary authority exits under provisions of the existing rule to accomplish the established objective of 100+ wolves for the currently authorized BRWRA Mexican gray wolf reintroduction project, we question the wisdom of going forward with this rule revision process prior to the completion and approval of a revised recovery plan for Mexican gray wolf recovery. If the same time and staff effort were redirected to recovery planning, a recovery plan could be developed and approved in the same or less time than will be expended on this rule revision process. If a rule revision is then deemed necessary, it could address the specific recommendations of the new recovery plan.

We request that this rule revision process not be completed until a new recovery plan has been approved, and that recovery planning be immediately reinitiated.

One potentially negative effect of delaying a comprehensive rule revision is a further delay of "direct release" options for genetic enhancement of Mexican wolves in the New Mexico portion of the BRWRA. Therefore, TRI supports a limited rule revision that can be expedited to allow such direct releases for population genetics management purposes until a recovery plan and comprehensive revised rule are approved.

The Forest Service Problem

The Gila and Apache National Forests comprise 95% of the BRWRA. The failure of the BRWRA reintroduction project to meet the objective of establishing a viable, self-sustaining population of at least 100 Mexican wolves by about the end of 2006 has been caused primarily by conflicts between wolf population restoration and livestock production on the same public lands. It is not the conflict itself that is the problem, but rather it is the management and policy responses by the USFWS- and the lack thereof from the Forest Service- that have resulted in unsustainable levels of lethal control and permanent removals of Mexican wolves.

Mexican wolves have borne the burden of conflict resolution through being killed or permanently removed. To date, 58 Mexican wolves have been permanently removed from the BRWRA for conflicts with cattle. Indeed, more wolves have been removed for such conflicts than for any other reason.

Cattle grazing in and around the BRWRA is ubiquitous, making wolf-livestock conflicts to some extent inevitable. Still, the Forest Service has done nothing to reduce such conflicts, but is instead has engaged in a policy of willful blindness to wolves. Not withstanding its affirmative legal obligations, the Forest Service has implemented no conservation programs or policies to reduce wolf-livestock conflicts, it has neglected to impose any requirements of proactivity or sound animal husbandry on its grazing permittees, it refuses to consider wolves in any of its environmental analyses, and it has

been nothing short of apathetic in its charge to increase survival and persistence of Mexican wolves in the wild population.

Specifically, the Forest Service has interpreted the Mexican wolf's ENE classification in such a manner as to absolve it of any legal obligation to consider the conservation and recovery of this subspecies- or potential harms to this subspecies- in its management and policy decisions. Rather, in its now signature scapegoating and egregious over application of ESA § 10(j), the Forest Service routinely dismisses its legal obligation to consider wolves by simply quoting the wolf's ENE status.

As the USFWS is well aware, this ENE status lowers protections for Mexican wolves in three very important ways: it precludes a designation of critical habitat; it exempts defense of property from the ESA § 9 prohibitions in certain, highly detailed circumstances; and it turns an otherwise searching ESA § 7(a)(2) consultation process into a rubberstamped intra-agency "conference," from which a finding of substantive jeopardy is literally impossible. What the USFWS also knows- or should know- is that the Mexican wolf's ENE status has no bearing on the Forest Service's duties to robustly consider potentially significant impacts to wolves in its NEPA analyses for grazing decisions; nor does the ENE status relieve the Forest Service of its ESA § 7(a)(1) duty to utilize all of its resources in furtherance of the conservation of this subspecies.

In an attempt to justify its total dismissal of wolves, the Forest Service often cites to the definition for "disturbance causing land use activity" in the current Section 10(j) rule. Of course, this definition applies specifically to activities within a 1-mile radius of release pens, active dens, and rendezvous sites. The definition excludes legally permitted livestock grazing, use of water sources by livestock, and livestock drives if no reasonable alternative route or timing exists. The Forest Service has interpreted this very limited exclusion from this definition to be an admission by the USFWS that livestock grazing has no adverse impact on Mexican wolf reintroduction anywhere within the BRWRA. Much to our dismay, we have seen unofficial writings by USFWS personnel agreeing with this misguided interpretation.

The Forest Service fields assertions that it is violating ESA § 7(a)(1) by way of cursory reference to its participation on the Mexican Wolf Adaptive Management Oversight Committee. Simply having membership on a decision making body whose decisions are precluding recovery of the Mexican gray wolf cannot substitute for a federal agency's affirmative obligation under the ESA to "utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species listed pursuant to…this Act." Just like it does not somehow relieve the Forest Service's NEPA duties, Section 10(j) of the ESA does not override Section 7(a)(1).

When we met with Forest Service regional officials to discuss why they were not doing more to conserve the Mexican wolf, their response was that USFWS has not asked them to. This is a pathetic example of bureaucratic avoidance of responsibility by both agencies.

Reclassifying the Mexican gray wolf subspecies to either endangered in its own right, and thus fully protected under the ESA apart from *Canis lupus*, or as "experimental, essential" would cause the Forest Service to formally consult with the USFWS on its proposed actions. Restoring the consultation requirement for this population would also cause the USFWS to evaluate how the actions of other federal agencies may be impacting the Mexican wolf, and to issue formal biological opinions as to those impacts. Furthermore, we are confident that essentially "uplisting" this population would also at least tempt the Forest Service to adequately consider the Mexican wolf in its NEPA analyses, and may likewise spark a shift within Forest Service policies to prioritize endangered species protection and conservation over forage production for domestic livestock.

We believe such reclassification is necessary for conserving and recovering Mexican gray wolves in the BRWRA as is required by the ESA.

The Wild BRWRA Population is "Essential"

While the details of a revised recovery plan are not available, it is clearly understood by the USFWS and the scientific and conservation communities from basic conservation biology principles and from partially finished recovery planning efforts that recovery of the Mexican gray wolf will require the establishment of at least three or more viable, self-sustaining "core" populations, which are interconnected with habitats that provide safe passage for wolves to move freely among the core populations. By "recovery" we mean the restoration of Mexican wolves to all or a significant portion of their historic range, as well as the removal of any and all threats to the wolf's continued existence, such that the wild population no longer meets the definition of a threatened or endangered species under the ESA.

An analysis of five potential reintroduction areas presented in the final EIS found the BRWRA to be the most suitable site capable of meeting the objective of establishing a viable, self-sustaining population of at least 100 Mexican gray wolves within the probable historic range of the subspecies. Subsequent analyses by independent scientists published in peer-reviewed journals have identified the BRWRA as one of the most important areas available for Mexican wolf restoration. A recent analysis of areas suitable for wolf recovery in the western United States by Carroll et al. (2006) confirms the high importance of the BRWRA to recovery of the Mexican wolf in the Southwest.

Given that the BRWRA is arguably the best place to initiate Mexican wolf recovery in the Southwest and that restoration of a viable, self-sustaining population of Mexican wolves in the BRWRA is arguably a critically essential component to any future recovery plan for the Mexican gray wolf, the USFWS can no longer justify an ENE classification for the BRWRA population.

In 1998 the USFWS justified the determination that the BRWRA population of Mexican gray wolves is nonessential to the continued existence of the subspecies on the basis that

the genetic integrity of the subspecies is being protected in the captive population. In promulgating the existing rule, the USFWS concluded that "even if the entire experimental population died, this would not appreciably reduce the prospects for future survival of the subspecies in the wild. That is, the captive population could produce more surplus wolves and future reintroductions still would be feasible if the reasons for the initial failure are understood." While such a conclusion may have been justified in 1998 and for a short time thereafter, it cannot be justified in perpetuity or as a safe harbor for mismanaging and excessively removing wolves in the wild. The USFWS also asserted that "Releasing captive-raised Mexican wolves furthers the objective of the *Mexican Wolf Recovery Plan*"; and that "This 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" (underlining added).

Thus, the USFWS admits that the establishment of a population of at least 100+ Mexican gray wolves in the BRWRA within a reasonable period is necessary to further recovery objectives, that the captive population cannot be relied upon as an extinction safeguard indefinitely, and that future reintroductions would be feasible if the reasons for the initial failure are understood. After two formal program reviews, ongoing annual progress reviews, and the analysis by Parsons and Ossorio (2007), the reasons for failure of the BRWRA reintroduction to reach the 100+ wolf objective by about the end of 2006 are clearly understood and have been elucidated above within these comments.

A recently published review of research by Frankham (2007) entitled *Genetic Adaptation to Captivity in Species Conservation Programs* raises new concerns about genetic deterioration in captive populations. The process of evolution causes animals to adapt to their environment. Frankham, citing several peer-reviewed studies, states that "Characteristics selected for under captive conditions are overwhelmingly disadvantageous in the natural environment," and that these adverse evolutionary changes "jeopardize the ability of captive populations to reproduce and survive when returned to the wild." He advises that "genetic adaptation to captivity should be minimized for populations likely to be used for reintroduction," and that the most effective way to minimize genetic adaptation to captivity is to "minimize the number of generations in captivity" and return the species to the wild "as rapidly as possible." Mexican wolves have been bred in captivity for approximately 30-45 years (10-15 generations) or possibly longer (records of the establishment of the Aragon Lineage are not available), depending upon the lineage. This research reconfirms the USFWS's cautionary concern in the current rule about prolonged captivity cited above.

Endangered species recovery takes place in the wild, not in captivity. There is absolutely no legal or biological basis for asserting that a captive breeding program alone satisfies the mandate of the ESA. Clearly, the existing BRWRA population or any future wild population of Mexican gray wolves can no longer be considered "nonessential" to the continued existence of the subspecies until full recovery under the ESA has been

achieved. If there ever is a case to be made for the first ever designated "essential" experimental population under Section 10(j) of the ESA, this is it.

A "Conservation Alternative"

We request that the USFWS include and fully evaluate, as required by NEPA, a "Conservation Alternative" to the existing rule for the BRWRA population of Mexican gray wolves. The primary objectives of this alternative are to "conserve" Mexican gray wolves in the legal sense as this term is defined in the Endangered Species Act, to achieve the stated objective of the BRWRA reintroduction project of establishing a viable, self-sustaining population of at least 100 wolves within the area currently delineated as the Blue Range Wolf Recovery Area in no more than four years, and to foster eventual full recovery of Mexican wolves within a significant portion of their historic range. This alternative shall include the following requirements or prohibitions:

- Reclassification of the BRWRA population of Mexican gray wolves as either endangered in their own right, and thus fully protected under the ESA separately and distinctly from *Canis lupus*, or as "experimental, essential" under Section 10(j) of the ESA.
- A primary overriding goal of achieving the current, but partial, recovery objective of establishing a viable, self-sustaining population of at least 100 Mexican gray wolves within the current geographic scope of the BRWRA (exclusive of the FAIR and any other permissive expansions), with no upper limit on the future number of Mexican wolves within the BRWRA or any larger geographic area.
- No restrictions on the movements, dispersal, or establishment of territories by Mexican wolves outside the boundaries of the BRWRA.
- If reclassified as "experimental, essential," an absolute limitation on taking of Mexican wolves from all causes (legal, illegal, and agency management actions)—except for the immediate defense of humans—such that the BRWRA population increases annually by at least 15% numerically and by at least 2 breeding pairs (per the existing Federal Register definition of breeding pairs) based on the official end-of-year population count until the 100+ wolf objective has been met. Provisions should be included to allow and require the USFWS to immediately reduce authorized take for all subsequent years following years when this conservation goal has not been met.
- A provision for maximizing the genetic integrity of the BRWRA population.
- A provision exempting wolves that have fed on any carcass (or portion of a carcass) of livestock that died of a non-wolf cause from being killed or removed for livestock protection purposes; and a prohibition on the taking of wolves in the vicinity of attractants, including livestock carcasses, unless such attractants are specifically being used in an authorized take operation.
- A provision calling on the Forest Service to execute its ESA § 7(a)(1) duties for the Mexican gray wolf by adopting and implementing conservation programs or policies that serve to better avoid wolf-livestock conflicts, and thus promote the conservation and recovery of the BRWRA population.

- No provisions that would preclude or impede any conceivable proposal or action to achieve future recovery goals/objectives in any geographic area outside the current boundaries of the BRWRA. This specifically includes a prohibition on any expansion of the existing geographic scope of the experimental population area.
- A requirement for the USFWS to complete recovery planning for the Mexican gray wolf as expeditiously as possible if such a plan has not been approved and implemented prior to promulgation of a revised "experimental, essential" population rule or reclassification of the BRWRA population as endangered with full ESA protection.
- A provision that would allow future recovery objectives to override any provisions in a revised rule authorizing the take of Mexican wolves (other than for the immediate defense of humans) both within and outside the BRWRA, but within the experimental population area. This would require the granting of discretionary authority to the USFWS to reduce (but not increase) authorized take prescribed in a revised rule to accomplish future recovery objectives.

All relevant analyses, comments, requests, and recommendations presented within this entire document are hereby incorporated into this proposal for a Conservation Alternative.

This alternative would bring the USFWS into compliance with the conservation and recovery requirements of the ESA and expedite successful completion of the BRWRA Mexican gray wolf reintroduction project in about 4 additional years (if implemented expeditiously). It would cause the USFWS to return to its legally mandated mission of recovering the Mexican gray wolf as required by the ESA, and to abandon a failed practice of unsustainable wolf control.

Definitions in the Current Rule

Should the USFWS propose to issue a revised Section 10(j) rule, we offer the following comments on definitions within the current rule. Our lack of comment on an existing definition indicates our concurrence with (or ambivalence to) that definition and a recommendation that it be carried forward to a revised rule.

Breeding pair. We specifically request that this definition be retained unchanged in any subsequent rule.

Disturbance causing land use activity. We request elimination of this definition. The Forest Service has used this definition inappropriately to avoid its legal responsibility for conserving Mexican wolves through grazing-related management actions and policy decisions. The revised rule should grant USFWS full management discretion in consultation with the U.S. Forest Service to close areas and restrict activities around release pens, dens, and rendezvous sites as may be necessary to conserve Mexican wolves and ensure their release success, reproductive success, and survival in the wild.

Impact on game populations in ways which may inhibit further wolf recovery. This definition, and the rule provision it relates to, should be eliminated from any revised rule. Given the failure of the current program to reach the wolf population objective being caused by excessive management-related taking of wolves, this provision is inappropriate so long as the Mexican wolf remains listed as endangered or threatened under the ESA. If appropriate at all, such a provision belongs in state management plans following the delisting of the Mexican wolf.

Primary Recovery Zone. In a revised rule that allows wolf releases anywhere within the BRWRA, there will be no need to subdivide the area into zones with different rules. Thus, this definition should be eliminated.

Problem Wolves. We believe this definition does not belong in the formal rule. Such determinations should be made through the adaptive management process consistent with current circumstances and consistent with progress toward achieving the reintroduction objective.

Secondary Recovery Zone. In a revised rule that allows wolf releases anywhere within the BRWRA, there will be no need to subdivide the area into zones with different rules. Thus, this definition should be eliminated.

Comments on Provisions of the Existing Rule (50 C.F.R. § 17.84(k))

Below we offer comments on specific sections of the existing rule. The omission of a section implies our concurrence with (or ambivalence to) that section as presently written. These comments apply specifically to the scenario of an alternative that addresses a rule revision under the current Section10(j) classification of "experimental, non-essential," which as noted elsewhere in these comments we believe is no longer justified or appropriate for the BRWRA population of Mexican gray wolves.

§ 17.84(k)(1): We oppose the continuation of a non-essential experimental classification for this population of Mexican gray wolves. Justification for this opposition is presented within these official comments.

§ 17.84(k)(3)(iii): We request that this provision be deleted. Agencies should assume their full responsibilities under the ESA regardless of the classification of the BRWRA population of Mexican wolves.

§ 17.84(k)(3)(vii): We request that this provision be deleted, as it authorizes additional taking of wolves prior to achievement of the reintroduction objective. Current levels of take are already precluding progress toward the objective.

§ 17.84(k)(3)(ix): We request that all but the first sentence of this provision be deleted. The following provision should be added: Take authorized under this provision shall not preclude an annual increase in the BRWRA Mexican gray wolf population of at least 15% in numbers and at least two additional breeding pairs until the reintroduction

objective of a viable, self-sustaining population of at least 100 wolves has been met within the currently defined boundaries of the BRWRA. Thereafter, take authorized by this provision shall not preclude any objective established within a revised and approved Mexican Wolf Recovery Plan or any other recovery plan by any name that establishes objectives for recovering gray wolves in a geographic region that includes the BRWRA and/or the MWEPA.

§ 17.84(k)(3)(xiii)(8): We request this provision be reworded as follows: On public lands, the Service and cooperating agencies may restrict human access and any or all land uses as necessary to protect Mexican gray wolves within a 1-mile radius of release pens, dens, and rendezvous sites for whatever duration of time is determined to be necessary to assure the wolves' protection.

§ 17.84(k)(3)(xiii)(10): We request that this provision be deleted in its entirety.

§ 17.84(k)(3)(xiii)(11): We request that this provision be deleted in its entirety. If retained, we request this provision be modified such that it does not preclude any objective established by a future recovery plan.

§ 17.84(k)(3)(xiii)(12): We request this provision be modified such that it does not preclude any objective established by a future recovery plan.

§ 17.84(k)(3)(xiii)(13): We request this provision be deleted. There is no further need for mandated reviews of the BRWRA reintroduction project. Annual assessments, as are currently conducted, combined with a legitimate science-based adaptive management process should lead to management decisions that foster progress toward the reintroduction objective.

§ 17.84(k)(3)(xiii)(14): We request this provision be deleted. The USFWS should establish a classification that is appropriate for protecting and conserving Mexican gray wolves in the BRWRA population. We believe that classification should be either endangered in their own right, and thus fully protected under the ESA separately and distinctly from *Canis lupus*, or as an "experimental, essential" population under Section 10(j).

The Rewilding Institute appreciates this opportunity to participate in this most important program to recover the critically endangered Mexican gray wolf.

Sincerely,

David R. Parsons
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Attachment

Mexican Wolf Reintroduction: Put and Take Wolf Recovery?
19th Annual North American Wolf Conference
Flagstaff, Arizona
April 24-26, 2007
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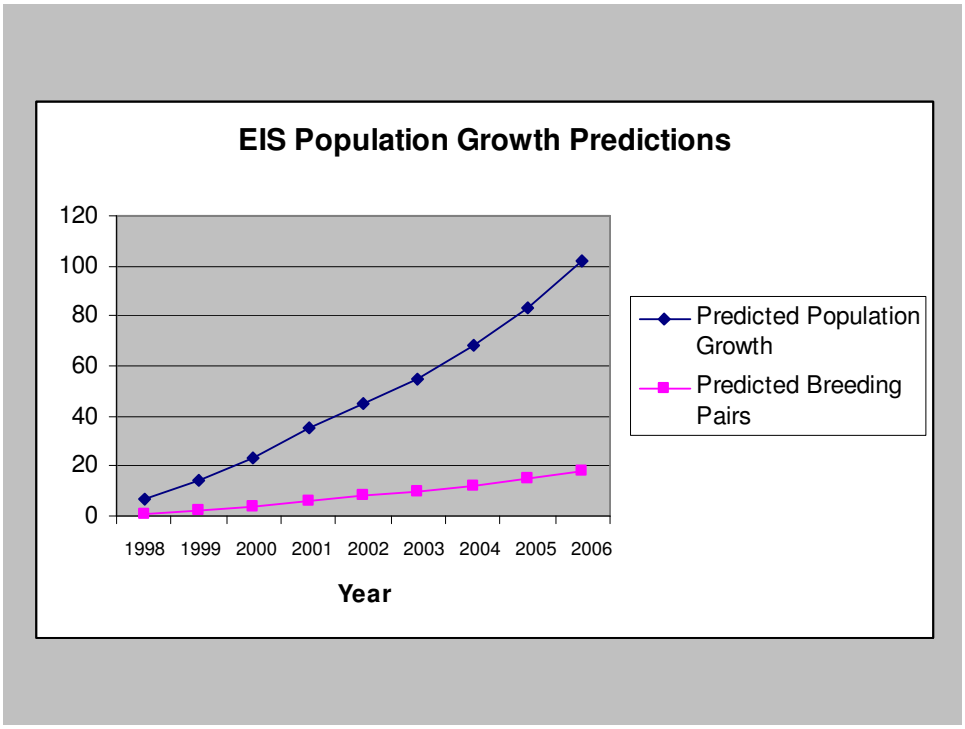
1. Hawk's Nest Release Photo

   Releases of captive reared Mexican wolves into Blue Range Wolf Recovery Area began in 1998 and have continued through 2006.

   The Blue Range reintroduction objective is to establish a population of at least 100 wolves

2. Chart of EIS Predictions.



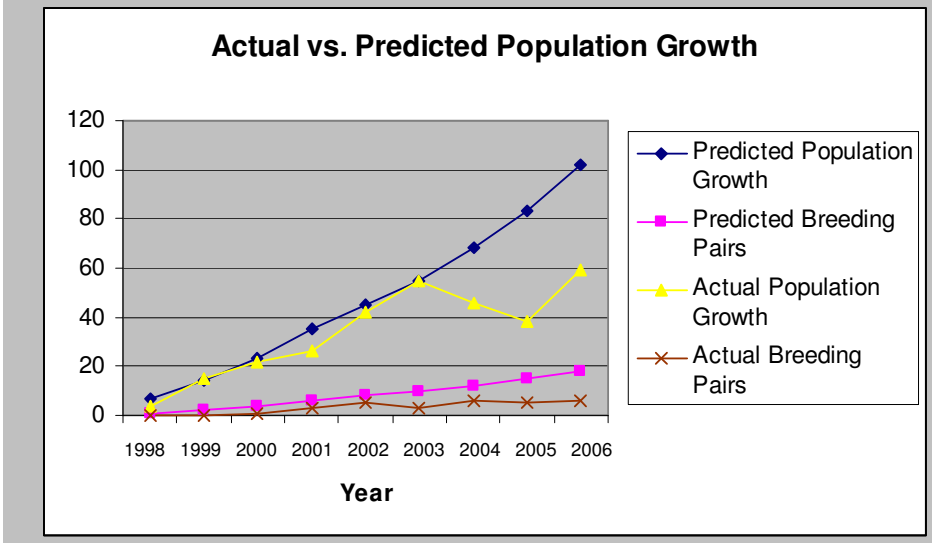
Predictions were made in the EIS that by the ninth year following initial releases (end of 2006) there would be:

102 wolves
18 breeding pairs

A "Breeding Pair" is an adult male and an adult female wolf that have produced at least two pups during the previous breeding season that survived until December 31 of the their birth year.

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006
Predicted Releases	15	15	15	15	6	0	0	0	0
Predicted Population Growth	7	14	23	35	45	55	68	83	102
Predicted Breeding Pairs	1	2	4	6	8	10	12	15	18
Actual Releases	13	21	16	15	9	8	10	3	4
Actual Population Growth	4	15	22	26	42	55	46	38	59
Actual Breeding Pairs	0	0	1	3	5	3	6	5	6
Pop: No Releases After 2002	4	15	22	26	42	50	36	29	45

3. Chart Comparing Predicted and Actual Population Status.

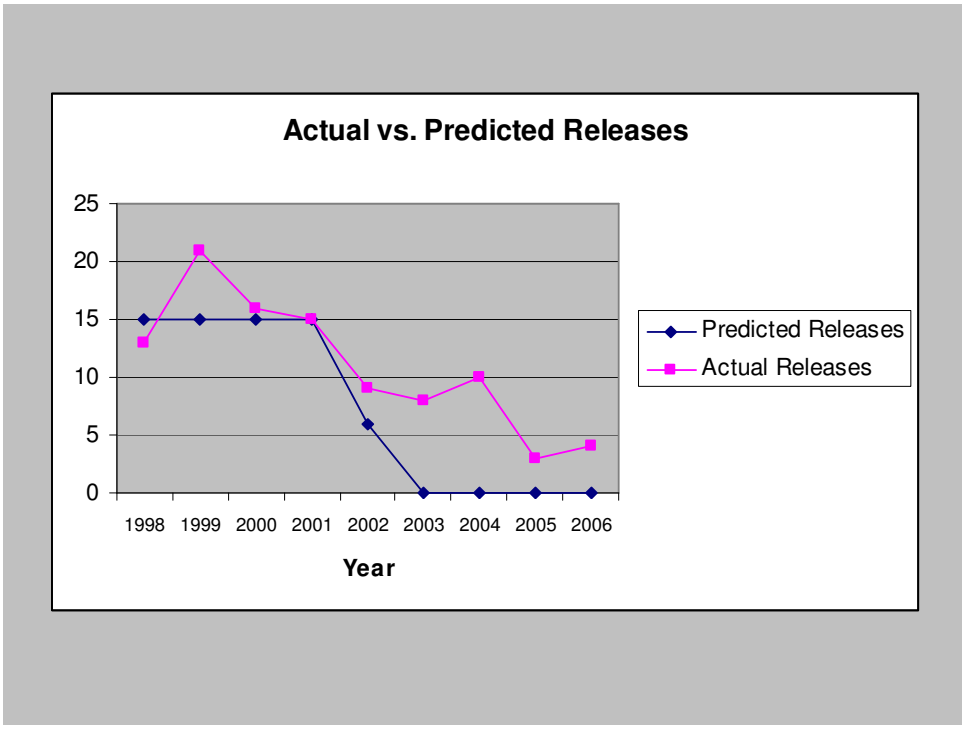


Actual population status at end of 2006:

59 wolves
6 breeding pairs - using strict interpretation of breeding pairs

Note: One of these breeding pairs has been eliminated by a lethal control action in 2007.

4. Chart Showing Actual and Predicted Releases.

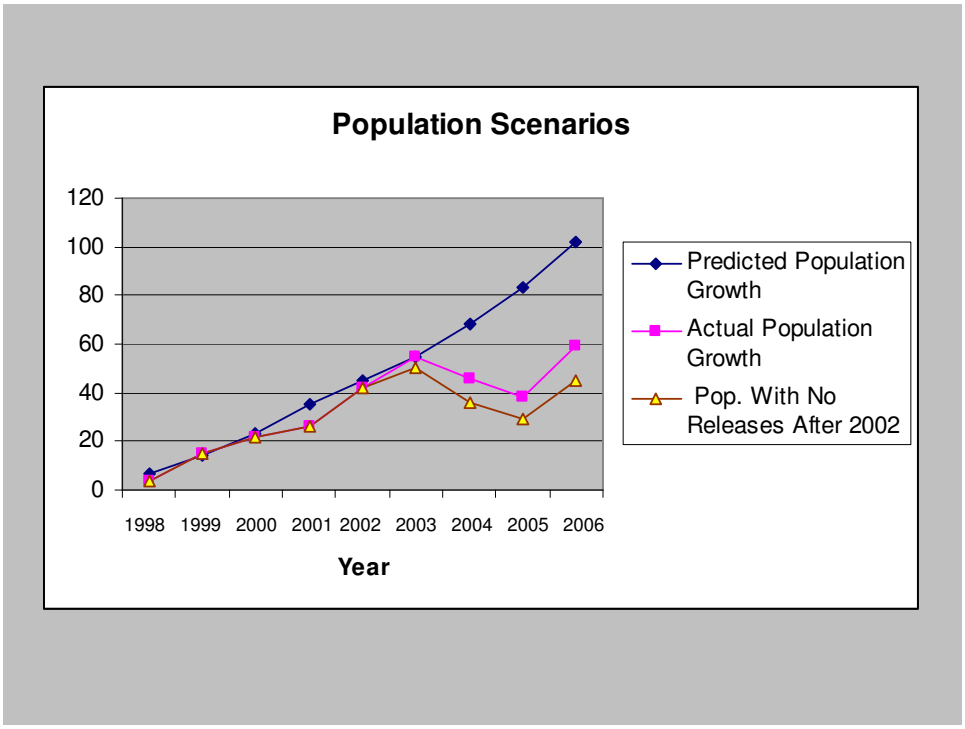


The EIS predicted that about 66 wolves would need to be released from 1998 through 2002 to reach a point where the wild population would be capable of increasing with no further supplementation.

Actual releases have totaled 99 wolves (we count wild-conceived, captive-born wolves as new releases) and have occurred every year of the project, to date.

Data on population and breeding pair trends do not support a conclusion that the population will steadily increase to 100 wolves without further supplementation.

5. Chart Showing Population Trend had Releases Ended in 2002.



Under actual conditions with releases continuing through 2006, the population increased steadily to an estimated 55 wolves at the end of 2003, declined in 2004 and 2005 to a mean estimate of 38 wolves, then increased in 2006 to an estimated 59 wolves. The estimated population has grown by only 4 wolves over the past 3 years.

Since today's population is not significantly different from the population at the end of 2003, we thought it would be an informative exercise to construct a hypothetical population trend as if new releases ceased after 2002, as was initially expected. This allows the analysis of 4 years of actual project performance under a no-release scenario with a starting population very similar to the predicted population at the end of 2002 (42 vs. 45). By the end of 2002, 74 wolves had been released (vs. 66 predicted).

We tracked the fates of individual new-release wolves and their wild-born offspring from 2003-2006. Since the fates of only "known" wolves can be determined, our data represent a minimum estimate of the number of wolves in the current population deriving from new releases over the past 4 years.

Had no releases occurred after 2002, the current estimated population would be no more than 45 wolves. We made no attempt to estimate the number of breeding pairs.

The difference of 14 wolves comprises 8 post-2002 new releases and 6 wild-born offspring of these wolves.

6. Release Photo

   What can we conclude about the "put" side of our "put and take" assertion?

7. Bullet Chart with "Put" results.

   >Actual releases (99) exceed predicted releases (66) by 150%.
   >Wolves released after 2002 and their offspring comprise 24% of the 2006 population.
   >Absent continued releases, the population would have increased by no more than 3 wolves (42 to 45) since the end of 2002.
   >The release of 25 new wolves during 2003-2006 accounted for 82% (14 of 17 wolves) of the population increase over this 4-year period.
   >The population increase since 2002 is heavily "release subsidized"

8. Photo of Dead Wolf

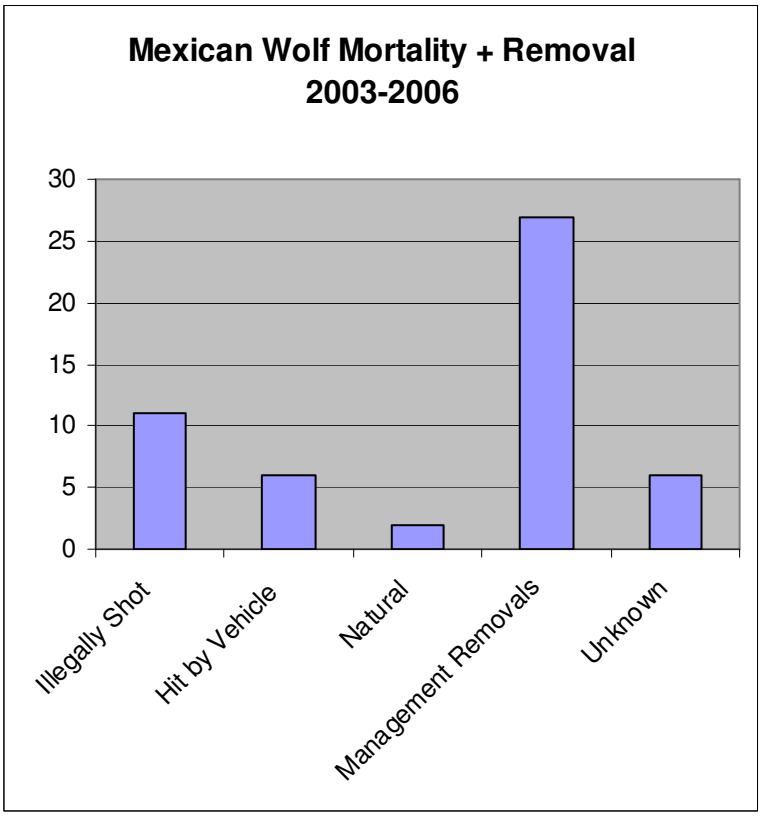
   Now let's evaluate the "take" side of the equation. We have limited this analysis to the years 2003-2006 to reflect contemporary data and trends.

Mexican Wolf Mortality + Removal

Year	2003	2004	2005	2006	Total	% Total
Cause of Death/Removal:						
Illegally Shot	7	1	3	0	11	21.0%
Hit by Vehicle	4	1	0	1	6	11.5%
Natural	0	1	0	1	2	4.0%
Management Removals*	2	1	7	17	27	52.0%
Unknown	1	1	1	3	6	11.5%
Total	14	5	11	22	52	100.0%

* Includes: Lethal control, management removals, and capture-related mortalities.

9. Bar Chart of Mortality and Removal Factors



Note: Our total for management removals is substantially lower than the number reported by the FWS in Table 6 on their website (27 vs. 61). We report only permanent removals not reflected in the end of year counts. If a removed wolf is later returned to the wild, we did not count it as a removal. Our analysis is limited to wolves with known fates. We have not accounted for missing wolves that fall in the category of "lost to follow-up", because their fates cannot be known.

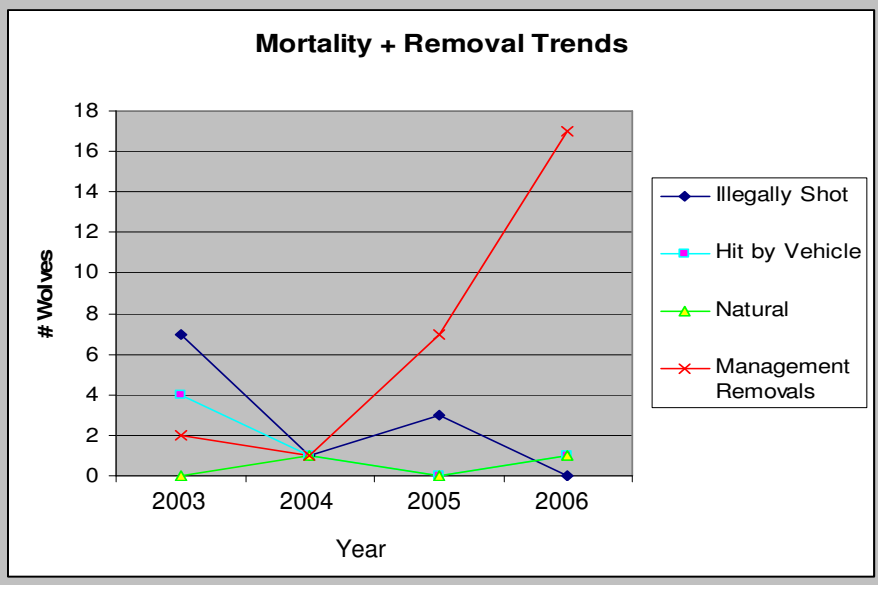
Management-related removals account for 52% of all known mortalities and permanent removals over the last four years.

Illegally shot wolves account for an additional 21%

Thus, nearly 3/4ths of all known-fate failures for the past 4 years were caused by either management removals or illegal killing. The "good news" in these data is that these are causes that the managing agencies have the capability to address and reduce. Little can be done to reduce vehicular, natural, and unknown mortalities.

10. Mortality + Removal Trend Chart

"As the Reintroduction Project moves forward, we expect removal rates for causes other than boundaries to stabilize or decrease." AMOC: 5-Year Review.

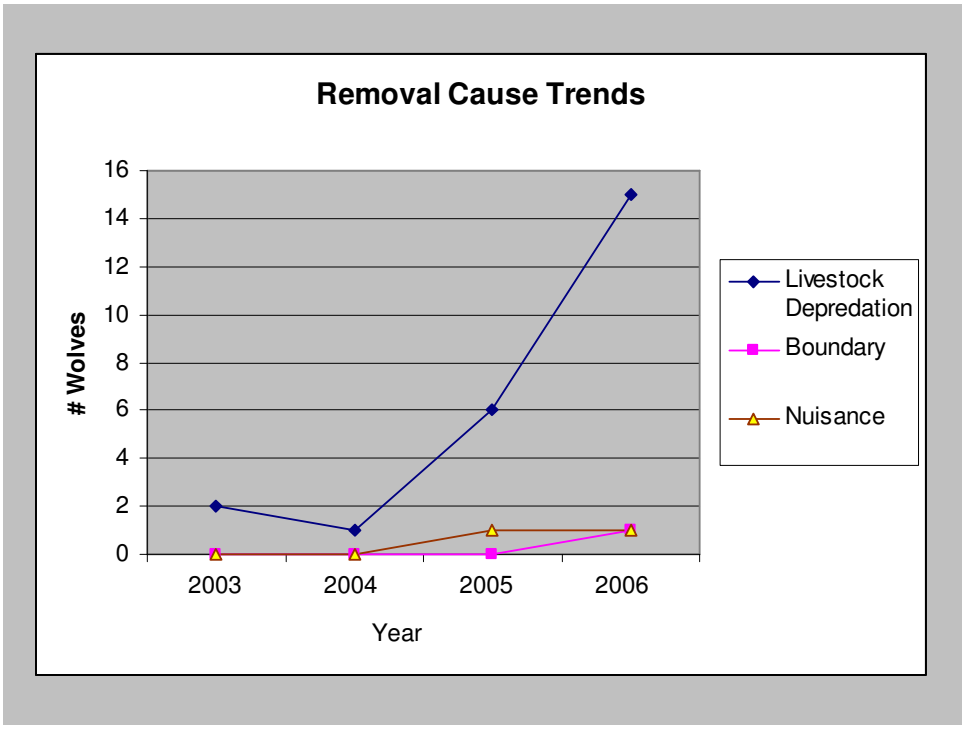


Of particular concern to us are the trends of mortality and permanent removal causes over the past four years.

While illegal shootings, vehicle strikes, and natural mortalities have declined or remained low for the past four years, management related take has soared.

Quote from Five Year Review: "As the Reintroduction Project moves forward, we expect removal rates for causes other than boundaries to stabilize or decrease." This expectation could be true if the majority of management removals were of wolves that crossed the boundary.

11. Removal Cause Trend Chart



A breakdown of the specific causes of permanent removals reveals good news and bad news. The good news is that removals for boundary infractions and nuisance behavior have resulted in the permanent removal of only three wolves in the past four years, and one of these was returned to the wild in 2007.

But the bad news is that removals for livestock depredations are rising steeply, accounting for the permanent removal of 24 wolves from 2003-2006—nearly 90% of all removals.

Of note here is that the AMOC began implementing SOP 13 in 2005. This procedure requires the removal of all wolves that accumulate 3 livestock depredations in the span of a year.

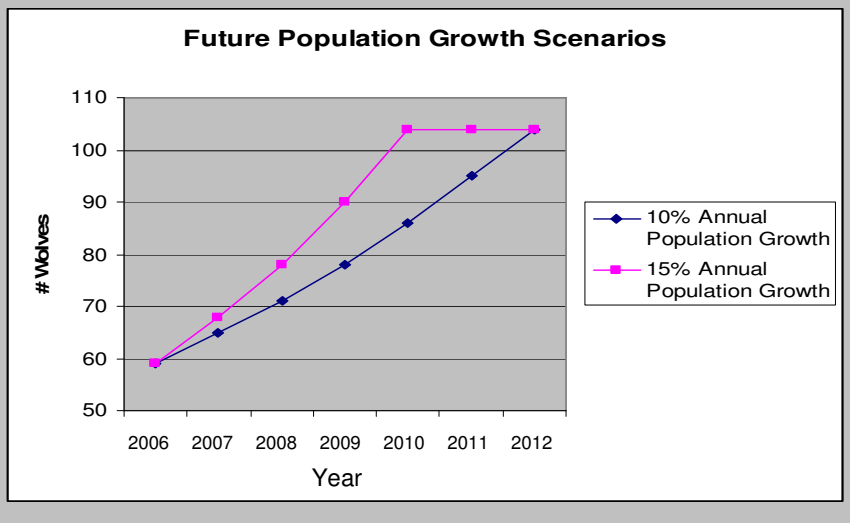
Year	2003	2004	2005	2006	Total	% Total
Cause of Management Removals:						
Livestock Depredation	2	1	6	15	24	88.9%
Boundary	0	0	0	1	1	3.7%
Nuisance	0	0	1	1	2	7.4%
Total	2	1	7	17	27	100.0%

12. Bullet Slide of "Take" Results:
    - Recruitment during 2003-2006 = 88-93 wild-born pups + 25 new-release wolves = **113-118**.
    - Known off-take = 25 mortalities + 27 permanent management removals.
    - Net result = population increase of 17 wolves—an **average increase of 4 wolves per year.**
    - Management-related, agency-authorized "take" accounted for over half of documented mortalities and permanent removals during this period.
    - Population growth is **"take limited".**

The information we have presented should be used to guide AMOC through the adaptive management process in new directions that will result in steady population growth and reintroduction project success.

13. Chart of Population Growth Scenarios.

"The IFT management objective for 2007 is a 10% increase in the minimum wolf population counts and/or the addition of at least one breeding pair, while minimizing negative impacts of wolves." IFT Annual Report for 2006



Quote from the 2006 Annual Report: "The IFT management objective for 2007 is a 10% increase in the minimum wolf population counts and/or the addition of at least one breeding pair, while minimizing negative impacts of wolves."

We looked at two future growth scenarios (10% and 15% annually) to determine the remaining time required to meet the reintroduction project objective. Ignoring the "and/or" caveat, under the IFT's modest 10% objective for 2007, if carried forward to succeeding years, it would take 6 more years to achieve the 100-wolf population objective. A 15% annual increase would reach the objective in 4 years.

14. Closing Recommendations

>We recommend that the AMOC adopt an objective, henceforth, of at least a 15% annual population increase, obtained substantially through wild reproduction, until the 100-wolf objective has been met, which would occur in no more than four years.

>The need for new releases should be phased out by the end of 2007, except for special circumstances, such as genetic augmentation.

>The most fruitful avenues for exploring policy and procedural changes should relate to the causes of management-related take, especially livestock depredation, and illegal killing. Twenty-three Mexican wolves have been shot and only one person has been apprehended and charged.

>Seemingly endless process promoted by the AMOC must be replaced by swift and decisive actions that cause more wolves to survive, persist, and thrive in the BRWRA.

>The currently conceptual livestock-wolf conflict interdiction program needs to be implemented yesterday. The primary emphasis of this program should be the preservation of wolves in the wild.

>State and Federal agencies represented on the AMOC should fully embrace and support a program for voluntary grazing allotment retirement within the BRWRA.

>The U.S. Forest Service must recognize and embrace its ESA mandate to carry out programs "for the conservation of" endangered Mexican wolves. The Gila National Forest's recent proposal to increase the allotted AUMs on the T Bar Allotment (a depredation hotspot) by 148% is wrongheaded policy. The USFS must actively explore ways through policy changes and grazing permit conditions to reduce livestock-wolf conflicts.

>The NEPA process for revising the existing rule should include an alternative that considers reclassification of the reintroduced population as either "essential experimental" under section 10(j) or "endangered" with the full protection of the ESA. This is fully supported by the evidence that the current "non-essential, experimental" designation has not sufficiently led to the ESA requirement for "conservation" of the species.

>SOP 13 must be revised to achieve new population growth objectives and to bring it into compliance with the "conservation" requirement of section 10(j) of the ESA. In its present form SOP 13 could preclude recovery of Mexican wolves indefinitely, because it contains no threshold provisions based on population numbers or trends (i.e., measures of progress toward recovery) which would trigger a reduction or cessation of agency-authorized taking of Mexican wolves.

>State and Federal agencies represented on the AMOC should support and advocate for road closures within the BRWRA in the ongoing travel management planning process being undertaken by the U.S. Forest Service.

>Law enforcement activities should be thoroughly reviewed for ways to increase apprehensions and convictions of wolf killers.

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