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Re: Mexican Gray Wolf NEPA Scoping: Federal Register: August 7, 2007 (Volume 72, Number 151), Pages 44065-44069. 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 Dr. Millsap,

Introduction. Thank you for the opportunity to comment on the scope of the EIS, pertinent issues the Fish and Wildlife Service should address, and alternatives that should be analyzed. The Center for Biological Diversity has been intimately involved in Mexican gray wolf recovery, in several organizational incarnations, since suing in 1990 as plaintiff organization Wolf Action Group in the pioneering lawsuit that led to the 1993 settlement agreement whereby the Fish and Wildlife Service committed to reintroduction. The Center has served on the Southwest Gray Wolf Recovery Team, and has led an active program of education about Mexican wolves, including organizing a children's art contest and putting on 123 slide presentations about the Mexican wolf for thousands of people. The Center was a plaintiff in the successful lawsuit to rescind the April 1, 2003 gray wolf reclassification rule that created a southwestern distinct population segment of gray wolves that would have undermined the recovery of the Mexican gray wolf. In 2004, the Center petitioned under the Administrative Procedures Act for implementation of the recommendations of the 2001 Mexican Wolf Three Year Review (Paquet Report), and in 2006 we filed suit to ensure a substantive respond to our petition. We are pleased the Service finally has a process underway for changing the Federal Register rule governing Mexican wolf reintroduction.

Changing the legal definition of the Mexican gray wolf population may not be accomplished illicitly. As a preliminary matter, we point out that the Service has undertaken to change the legal definition of the reintroduced Mexican gray wolf population on the sly, through the title of the present advanced notice of proposed rule-making and with no invitation to comment. The title of the present notice, 72 FR 44065, is:

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")
Yet the legal description of the reintroduced Mexican wolf population that was established in 1998 pursuant to 63 Fed. Reg. 1752, is described differently in the title of that notice:

“Establishment of a Nonessential Experimental Population of the Mexican Gray Wolf in Arizona and New Mexico.” The 1998 notice, still in effect today, established a population of the Mexican gray wolf, not the gray wolf generically, pursuant to a statement in the 1978 reclassification of gray wolves, 43 FR 9607, that the Service “can offer the firmest assurance that it will continue to recognize valid biological subspecies for purposes of its research and conservation programs.” The 1978 rule, which consolidated several gray wolf subspecies listings into just two listings, was undertaken because “the taxonomy of wolves is out of date, wolves may wander outside of recognized subspecific boundaries, and some wolves from unlisted subspecies may occur in certain parts of the lower 48 states.” In large part, the purpose of the 1978 reclassification was to provide protection for wolves:

There still are some places in the lower 48 States, such as Washington and North Dakota, where wolves may occur and where they are not under Federal protection. Moreover, because of the confusing taxonomy of wolf subspecies, and because wolves may wander across recognized subspecific boundaries, difficult law enforcement problems may arise.

And: “The rule making will extend Endangered status to those few wolves that may be in the region that are not already listed, and would simplify law enforcement and conservation measures.”

The assurance, reiterated in the 1978 rule, to recognize and conserve valid subspecies was to ensure that the increased protections offered to wolves through the reclassification, and the simplification of conservation, would not come at the cost of conserving (meaning recovering) subspecies. By renaming the reintroduced experimental non-essential population from Mexican gray wolf to gray wolf, the Service signals it will violate that pledge – a reflection of an attempted legal cover for having placed recovery planning for the Mexican wolf in abeyance since January 2005. Instead, if the Service intends to back away from recognizing and conserving valid subspecies, it should state that intention plainly as a proposal, take public comment, and make a decision. (Such a course is not merited but would at least follow proper procedures.)

It is no excuse for surreptitiously changing the legal status of the Mexican gray wolf to state in the present notice that:

Due to its previous status as a subspecies, the Service has continued to refer to the gray wolves in the southwestern United States as the “Mexican gray wolf.” . . . However, because the 1998 NEP final rule referred to the NEP as the “Mexican gray wolf” we will continue to use the term throughout the remainder of this document for ease of reference.

Contrary to the implication of the phrase “previous status as a subspecies,” the Mexican gray wolf is still a biologically valid subspecies, subject to the assurances formally proffered by the Service in 1978. The phrase “ease of reference” serves to denigrate the Mexican wolf’s taxonomic identity and falsely insinuates the name is merely a colloquialism.

The Mexican gray wolf is a valid biological subspecies. The Mexican gray wolf is a mammal in the order *Carnivora*, family *Canidae*, genus *Canis*, species *Canis lupus*, and subspecies *Canis lupus baileyi*. The Mexican gray wolf was first identified as a unique subspecies from a male killed at 6,700 feet elevation in the mountains of

Chihuahua, Mexico by two biologists for the U.S. Bureau of Biological Survey, predecessor agency to the Fish and Wildlife Service. Edward W. Nelson, later to be chief of the Survey, and Edward A. Goldman collected the animal during an 1899 expedition. Three decades later and with 64 more specimens having become available for their examination, they published a description of the creature in a 1929 *Journal of Mammalogy* article, classified it as a subspecies, and named it for fellow Survey employee Vernon Bailey (Nelson and Goldman, 1929).

“In southeastern Arizona and southwestern New Mexico, *baileyi* intergraded with *mogollonesis*,” Goldman later wrote. “Although wolves are known to wander over considerable distances, the transition from *baileyi* to *mogollonesis* is remarkably abrupt” (Young and Goldman, 1944:471). E. Raymond Hall confirmed *baileyi* as a subspecies (Hall and Nelson, 1959; Hall, 1981). U.S. Fish and Wildlife Service taxonomist Ronald M. Nowak (1986) suggested “accept[ing] *baileyi* as a separate subspecies as originally delineated,” explaining: “I have long been impressed by the tendency to small size shown by gray wolves of Mexico and the border region. A complete gray wolf skull found at a late Pleistocene site in Nuevo Leon is the smallest of any adult North American *C. lupus* that I have seen” (Nowak, 1986).

The genetic record confirms the Mexican wolf’s uniqueness and also that it intergraded with gray wolves to its north. Wayne et al. (1992) found that *C. l. baileyi*’s DNA is markedly different from that of all other North American wolves. Garcia-Moreno et al. (1996:384) further confirmed the subspecific uniqueness of the Mexican wolf, concluding that “the three captive lineages are the most distinct grouping of North American wolves, supporting their designation as an endangered subspecies.” Purity of the three captive lineages of Mexican wolves was confirmed through molecular genetic analysis (Hedrick et al., 1997). Leonard et al. (2004) identified a southern clade of gray wolves, including the Mexican gray wolf. A Great Plain wolf, *C. l. nubilus*,¹ within that southern clade, killed in the southern San Luis Valley on the New Mexico/Colorado border near the southwestern extent of Goldman’s delineated range for *nubilus*, was closely related genetically to members of *C. l. baileyi*. Thus genetic analysis corroborates the findings of phenotypic taxonomists that Mexican wolves intergraded with northern wolves. No peer-reviewed literature states that the Mexican wolf is not a subspecies.

The Mexican gray wolf is a valid biological subspecies, and thus the Service must follow through on its 1978 assurance to conserve it as such.

The reintroduced population no longer qualifies as experimental, non-essential, and should be upgraded to fully endangered. Even as the title of the present notice surreptitiously seeks to strip the Mexican wolf of its right to continued conservation as a subspecies, the notice admits that the Service already decided not to upgrade the population’s status as experimental, non-essential to fully endangered:

On July 24, 2006, the acting Southwest Regional Director issued his determination in a letter to the Chair of the AMOC that “the Mexican [gray] wolf Reintroduction Program will continue with modifications as generally outlined within the recommendations component of the 5-Year Review. Furthermore, the Service will work with the cooperating agencies and the AMOC to begin the

¹ The animal (USNM 3188) was erroneously noted as a *C. l. baileyi* by Leonard et al. but was identified as a *C. l. nubilus* by Goldman (Fisher, personal communication).

process of developing a new 10(j) proposed rule and associated NEPA analysis" (Tuggle 2006, p. 4).

The present notice goes beyond mentioning this predecisional course in quoting the acting Southwest Regional Director, to incorporating it into the framework for decision-making under the subtitle, "Issues Related to the Scope of the NEP." Aside from the sloppy grammar – it is not the scope of the population but rather of the rule-making that generates issues – this subtitle subsumes other issues into the general rubric of creating a new non-essential, experimental population rule – improperly ruling out promulgation of a new fully-endangered population rule (or experimental, essential rule).

There is compelling reason to upgrade the legal status of the Mexican wolf population to fully endangered. The Service is only authorized to designate a population as experimental non-essential if in fact it is not essential to the continued existence of the species. In the case of the reintroduced Mexican gray wolf population, prior to the reintroduction it was reasonable to believe that despite the absence of wolves in the wild, the captive-breeding population would ensure the continued existence of the Mexican gray wolf. But today the captive population can no longer serve as such a guarantee. The captive population is itself likely to be undergoing evolutionary degradation due to the selection for traits that are adaptable in captivity, but adverse in the wild. Such traits have been documented in a variety of taxa, including birds, amphibians, plants and many species of fish and insects. This inevitable process not only lowers survival and recruitment rates in future reintroduced populations, it also results in permanent loss of genetic diversity in precisely the alleles that are more adaptive for life in the wild.

The severity of genetic adaptation to captivity partially depends on the number of captive generations (Frankham, 2007). In the case of the Mexican wolf, in which three years can be considered the span of a generation (Mech & Seal, 1987), some lineages date to fifteen or more generations old (a wolf captured in 1959 and first bred in captivity in 1961, and possibly wolves in the Aragon Zoo whose wild progenitors have been lost to history). Frankham (2007) shows that fifty generations in captivity has resulted in a population containing a relative fitness in the wild environment of only 14% of that of a wild population; recovery to 70% fitness of the wild population was achieved after twelve generations back in the wild, but the original fitness was not fully regained (Frankham). Because the Mexican wolf has already lost significant genetic diversity, fifty generations in captivity would prove catastrophic and well beyond the point at which recovery from captive stock is still possible; it is likely, given the Mexican wolf's genetically depauperate condition stemming from the captive population's exceedingly low number (seven) of founding animals, that 25 or fewer generations in captivity would prove beyond the point of no return.

With one or two of the three founding Mexican wolf lineages already over fifteen generations in captivity, there is an approaching limit, even if the date cannot be ascertained precisely, to the point at which further releases from captivity to the wild will no longer retain efficacy at rescuing the wild population from inbreeding depression. In fact, after significant changes resulting from genetic adaptation to captivity, the creatures still in captivity – aside from their inability to survive in the wild – will in crucial respects no longer constitute Mexican wolves; they will have morphed into something more akin to domestic dogs.

The 1982 Mexican Wolf Recovery Team calls for reintroduction to establish two viable populations of Mexican wolves in the wild. But according to the response to a Freedom of Information Act request we submitted to the Fish and Wildlife Service, the agency has conducted no planning for a second reintroduction. The Service suspended meetings of its Southwest wolf recovery team, charged with revising the Mexican Wolf Recovery Plan, in January 2005. If the reintroduced Mexican wolf population of the Blue Range Wolf Recovery Area were to become extirpated, the Mexican wolf would eventually go extinct in captivity. Therefore, the reintroduced population is essential to the Mexican wolf's continued existence; it no longer qualifies as an experimental, non-essential population. It should be redesignated as fully endangered, accordingly.

Allow wolves to establish territories outside the boundaries of the Blue Range Wolf Recovery Area. Both the Mexican Wolf Three Year Review and the Mexican Wolf Five Year Review recommended that the Service rescind the requirement in the 1998 rule that wolves that establish territories wholly outside the boundaries of the recovery area and outside of private and tribal lands where they are specifically permitted, be captured from the wild. This provision, which applies to no other terrestrial animal managed by the Service, inhibits establishment of a viable Mexican wolf population. Its effects are most evident in the permanent loss of several wolves, including one inadvertently killed through being run down by helicopter in November 2001 for being outside the boundary, and the loss and probably death of a reported pup or pups of the San Mateo Pack who were never located when their parents were trapped in August 2004 for living in the Cibola National Forest instead of the Gila National Forest.

Even in circumstances in which wolves are not killed directly as a result of removal due to establishing territories outside of permitted areas, translocation of such wolves may precipitate events which result in their deaths or further removal from the wild. For example, the alpha male of the San Mateo Pack was shot by the USDA Wildlife Services predator control branch in February 2007 for depredating on livestock that he encountered in the region to which he had been translocated. Translocation of the Campbell Blue Pack for boundary reasons in January 2001 resulted in the alpha female breaking her leg in captivity, and after release the pack splitting apart (a frequent response to translocation), and both alpha animals scavenging on and eventually depredating on livestock – which led to the pack's capture and destruction.

The Five Year Review concluded that wolves that are translocated are more likely to successfully reproduce after translocation than are wolves released directly from captivity. Yet this metric fails to compare the total number of litters and successfully raised pups between the two groups (of translocated versus initially-released wolves), and thus does not account for the two litters of pups from the first Pipestem Pack¹ and the Francisco Pack² that were largely destroyed as a result of capture operations for

¹ In the case of the Pipestem Pack, according to records we received from the Service via FOIA, biologist Bret Snyder who conducted the necropsy on the three victims opined that it was "most likely" that the fatal recrudescence of the disease occurred because of stress from capture.

² In the case of the Francisco Pack, according to records we received from the Service via FOIA, Service personnel warned that construction activity proximate to the wolves' holding pen would be stressful and might hurt the pups; subsequently all five pups disappeared and were assumed to have died and been consumed by the remainder of the pack.

translocation; in other words, it measures reproduction as a yes/no proposition rather than quantifying litters and pups successfully produced and raised.

The yes/no standard is too gross a measurement, and fails to identify the nuances of cause and effect that must be examined in particular when a small sample size (such as that used in the Five Year Review) increases the chances of erroneous conclusions. For example, it does not properly account for the demise of the nine-member Lupine Pack that were initially released (and not translocated) within the territory of another pack, which attacked them, ultimately causing loss of the entire pack.³ The Five Year Review analysis tallies these nine initially-released animals as not having bred following their release, as if their initial release was a biological factor in their failure to subsequently reproduce, thus skewing the analysis due to a factor that is only incidentally (because animals released from captivity must be released in Arizona according to the rule) germane to the circumstances of their unhappy fates. Because nine animals is relatively large in the Five Year Review's small sample size, this and other idiosyncratic incidents helped lead to the erroneous conclusion that translocating wolves actually contributes to their success in reproduction. To the contrary, capture for translocation is contributing to the Mexican wolf population's suppression, and a major cause of translocation is the provision requiring capture of wolves outside the boundaries.

No boundaries should trigger a requirement that wolves be captured. All the deleterious impacts of the current boundary rule would be duplicated should the Service impose any new boundary on the population (such as the boundary of the experimental population area). Wolves should be allowed to roam at will and should not be captured on the basis of lines on any map.

Owners of livestock utilizing the public lands should be required to remove or render inedible in a timely manner the carcasses of stock that are not killed by wolves. Such measures would prevent wolves from being attracted to carcasses, scavenging on them, remaining localized in areas where additional, live domestic animals may be particularly vulnerable (where there are dead cattle, sheep or horses there are often weakened such animals), and/or becoming habituated to preying on livestock.

The Three Year Review recommended requiring livestock owners to take responsibility for carcass removal disposal, noting that "At least 3 packs were removed from the wild because they scavenged on dead livestock left on national forest lands. Such scavenging may predispose wolves to eventually prey on livestock." And such predation has led to many wolves being removed by government.

The Five Year Review did not recommend this measure. However, its cursory analysis of the correlation between wolves scavenging and subsequently depredating is flawed. The Administrative Component of the review (pp. AC-27-33, 57) understates the incidents in which wolves first scavenged on livestock carcasses and subsequently depredated on livestock. First, this analysis is based merely on visual observations of wolves scavenging; it should have also included scavenging instances documented from

³ According to documents we obtained from the Service via FOIA, it appears that the attack by the already resident pack caused the Lupine Pack alpha male to run into a rattlesnake, which bit him, causing his neck to swell, resulting in his death by asphyxiation through constriction by his radio collar. His death and the territorial behavior of the established pack led to the other animals fleeing separately, their failure to establish a home range together, their individual vulnerability to poachers and hit and run drivers – and thus to the failure of any of them to subsequently reproduce.

necropsies performed on dead livestock. Second, the limited (once or twice a week, for the most part) monitoring of the wolves almost certainly missed other scavenging incidents, many of which would have preceded the depredations; it is inappropriate to assume that only those events documented actually occurred.

Third, record-keeping has been haphazard. As examples of the failure of consistent record-keeping, Nick Smith of New Mexico Department of Game and Fish informed me that the Gavilan Pack scavenged on a dead cow prior to that pack's killing of cattle in New Mexico in January 2000, but this was never put in writing. More recently, personnel who wished to remain anonymous in some of the agencies participating in the reintroduction program have informed us that for a period of approximately a year from spring 2004 to spring 2005, during which we (the Center for Biological Diversity) were publicly pointing out the correlation between wolves that scavenge and those that subsequently depredate, USDA Wildlife Services systematically failed to document for the field team instances in which their personnel investigated dead livestock fed upon by wolves except in the cases that wolves caused the deaths.

The example of wolf F592, shot and killed by the Service on May 27, 2003, is misrepresented in the Five Year Review chart (p. AC-57) of depredating wolves. As evidenced in documents that we obtained from the Service via FOIA (and provided the AMOC in our comments on the draft of the Five Year Review), F592 scavenged on livestock in March 2001 prior to beginning to depredate⁴ (and she ended up traversing dozens of miles to finally depredate precisely where she had first scavenged two years previously – an indication that scavenging and depredating are strongly tied). The Five Year Review chart erroneously states that F592's first depredation, on 4/18/2001, preceded her scavenging (which the chart wrongly says began on 5/1/2001). And the chronology regarding wolf F511's depredations and scavenging incidents is also incorrect; this wolf too began depredating subsequent to scavenging.

The Mule Pack's history is similarly misrepresented in the Five Year Review chart, which classifies M190 as "feeding on a carcass that was a direct result of a depredation" and lists M190's first scavenging and depredation incident on 5/11/2001, despite another record indicating his first scavenging incident occurred on 1/6/2000.⁵ And the Pipestem Pack's scavenging and depredation history is also misrepresented in the Five Year Review chart, which lists three members of the pack as "feeding on a carcass that was a direct result of a depredation" on 4/4/1999, despite the fact that such was not established.⁶

In other instances, the chart is misleading in implying that depredations preceded scavenging, when in fact the depredated stock and the scavenged stock were discovered

⁴ An email of 3/12/2001 at 7:07 pm by FWS biologist Wendy Brown states: "The Campbell Blue wolves remain separated. Last Friday, March 9, both were located on carcasses of livestock on private land. Neither had killed the animals, but were scavenging."

⁵ According to the Mexican Wolf Project Interagency Update covering January 4 -18, 2000, "On January 6 the [Mule] pack was found eating on the carcass of a dead horse. Investigation of the carcass determined the wolves did not kill the horse."

⁶ According to the Mexican Wolf Reintroduction Update covering March 21 – April 7, 1999, "On April 4, the rancher reported a possible depredation (calf) to project personnel, who retrieved the carcass. Heavy snow obliterated sign in the area. USDA Wildlife Services conducted a necropsy on the calf. Examination of remains was inconclusive as to cause of death. Wolves were in the area during this period. A dead bull and cow in the vicinity had also attracted bears and other predators."

at the same time, in the same area, and chronology was never established. The Gavilan Pack's experience in Arizona is one such instance.

There are many means by which carcasses may be removed or rendered inedible: They can be dragged away by backhoe or behind a vehicle. They may be soaked in gasoline and burned. They can be dumped into a pit and covered with soil and rocks. They can be exploded into tiny, inedible portions by dynamite. They can be treated with lime. While some of these methods are not feasible or appropriate in all circumstances (such as dragged by vehicle in a roadless area, or burned during periods of fire hazard), some method may be made feasible no matter what.

While it may require additional work to locate and dispose of such carcasses prior to wolves scavenging on them, the process of looking for them should be part of the responsibilities incumbent on those permitted to use public lands for grazing. Furthermore, livestock owners who spend time looking for carcasses are more likely to find sick or injured stock that may still be saved. The requirement to remove or destroy such carcasses may incline stock owners to avoid placing excessive numbers of animals in areas in which low food or water availability makes the stock more vulnerable. The time spent on finding and disposing of carcasses could easily be offset by the benefits of improved husbandry.

There are several possible means of enforcing such a requirement. The Service's rule establishing an experimental non-essential population of wolves in the northern Rocky Mountains regulates "attractants" including livestock carcasses, even though it does so loosely and with poor enforcement. One means would be to define a "depredating wolf," a "problem wolf," or a "nuisance wolf" (or all three) as an animal that has preyed on livestock and is reasonably anticipated to do so again, but that has not fed upon any carcass (or portion of a carcass) of livestock that died of a non-wolf cause. Thus wolves that scavenge would be exculpated and held blameless for any and all subsequent depredations – providing a powerful community incentive not to create such wolves immune to legal take. The following proposed language could aid in enforcing such a requirement:

Feeding of wolves or attracting them with food is prohibited. Livestock carcasses on lands managed consistent with a federal or state lease, agreement or contract shall be removed or rendered inedible (through lime, fire, explosives or other authorized means consistent with public safety). Improperly disposed livestock carcasses located in the area of depredation will be considered attractants. Incidents of wolves in the vicinity of or scavenging on attractants shall be recorded and maintained. No take of wolves shall occur in areas where attractants have attracted wolves.

No take of wolves that are not depredating wolves [or problem wolves] shall be authorized for livestock protection purposes and no take of wolves shall be authorized in the vicinity of attractants, including livestock carcasses, unless such attractants are specifically being used in the take operation.

Another means of requiring and enforcing livestock carcass removal would be to fold such requirements into the permits granted by land management agencies to authorize grazing. The Supreme Court in *U.S. vs. Light* (1911) ruled that livestock grazing on public lands is a privilege and not a right and that "The United States can prohibit absolutely or fix the terms on which its property may be used." The Supreme

Court has twice reaffirmed its 1911 ruling, most recently in a unanimous decision in *Public Lands Council vs. Babbitt* (2000). Therefore, such a requirement would not face any legal obstacle, contrary to statements in the Five Year Review. Putting a requirement to dispose of livestock carcasses into grazing permits would be facilitated by reclassifying the Mexican wolf population from experimental, non-essential to fully endangered (as we request above) or to experimental essential – both of which would trigger ESA Section 7 consultation for federal actions that might adversely affect the species. Such consultation could specify that requirements for livestock removal are reasonable and prudent measures to avoid jeopardy.

The Five Year Review is negligent not only in misrepresenting the impacts of making livestock carcasses available to wolves and habituating them to livestock, but also in failing to identify what level of predator control ultimately caused by such scavenging the Mexican wolf population can sustain in perpetuity while still meeting demographic goals. It is evident that predator control must be reduced substantially to enable the reintroduced population to survive and increase, and requiring carcass removal or destruction is one important component of allowing more wolves to survive in the wild.

Division of the recovery area into primary and secondary zones with differing management is inappropriate. The Service should have the authority to release wolves from the captive breeding pool anywhere in the Blue Range Wolf Recovery Area, not just in Arizona. This too was a recommendation of both the Three and Five Year Reviews. The aforementioned Lupine Pack, released in June 2001 and destroyed by causes precipitated by intraspecific strife shortly thereafter, could only be released into Arizona because of the existing ban on initial releases into New Mexico (the secondary zone). However, the New Mexico portion of the recovery area had (and has) vast areas without territorial wolf packs – and Arizona did (and does) not. Had the Lupine Pack been allowed to be released into New Mexico, it would not have been destroyed due to intraspecific strife.

Rescission of the ban on initial releases into New Mexico is vital for genetic reasons. The wild Mexican wolf population has begun to show the signs of inbreeding depression, such as smaller size, reduced fertility and lower litter sizes – including suspected infertility in some males (Fredrickson & Hedrick, 2002; Fredrickson et al. 2007). Inbreeding depression not only threatens to reduce recruitment to the population, but also threatens future fitness, viability and resilience. By increasing the number of wolves from the Ghost Ranch and Aragon lineages, genetic rescue can be achieved. But that entails finding locales for initial releases that are not already claimed by resident, territorial packs – which would require authorizing such initial releases into New Mexico.

The White Sands Wolf Recovery Area should be approved for releases of wolves and for wolf occupancy. It has already undergone NEPA review. The position that it is insufficiently large and lacks sufficient prey density for wolves only applies if wolves were to be expected to stay within its boundaries – a discredited notion. In fact deer densities may be quite similar to prey availability in other Chihuahuan desert environments in which Mexican wolves evolved; wolves survived in such locales by roaming vast home ranges to find sufficient prey. In addition, nobody can know for sure

whether Mexican wolves may be able to prey on vulnerable oryx that have been introduced to White Sands. If they can, such predation would serve an additional important ecological function in limiting the increasing distribution and impact of this non-native herbivore, and thus would benefit vegetation, soils and waters. The White Sands Wolf Recovery Area can serve as a locale for initial releases of genetically valuable wolves, and can serve as part of a metapopulation that interacts genetically with wolves in the Gila National Forest and the Ladder Ranch (which welcomes wolf recolonization). The 1996 EIS on reintroduction (FEIS:v) specified that future decision making about using the White Sands Wolf Recovery Area for wolves would depend, in part, on whether it is “necessary to achieve the recovery objective of re-establishing 100 wolves; that is, it would be used if it appears that the initial introduction in the BRWRA will not achieve a total population of 100 wolves.” Now, a year after the Blue Range Wolf Recovery Area was projected to reach over 100 animals, it has not done so. Therefore, use of White Sands is appropriate and should be authorized.

It is inappropriate to authorize any additional circumstances for injurious or lethal take of wolves. The Service’s failure to achieve the Blue Range Wolf Recovery Area objective of at least 100 wolves by the end of 2006 is largely due to take authorized in the current (1998) rule. That take was premised on the notion that it would:

make reintroduction compatible with current and planned human activities, such as livestock grazing and hunting [and] is also critical to obtaining needed State, Tribal, local and private cooperation. The Service believes this flexibility will improve the likelihood of success.

In fact, the opposite has occurred. High levels of authorized take may have even emboldened opponents of wolf recovery. According to an article in the most recent issue of *High Country News*, opponents have skillfully exploited the rules governing authorized take, in conjunction with baiting of wolves with vulnerable livestock, to ensure the removal of a wolf; this may be the tip of the iceberg. In addition, the rate of poaching of Mexican wolves has been higher than in any other wolf recovery program or even any other endangered species recovery program. Wolves have also been killed in significant numbers by automobile collisions without reporting of the incidents as required in the current rule – another indication that liberal take provisions are being abused. It is no longer reasonable to assume that increasing legal take improves the likelihood of the reintroduction project’s success, when the opposite is evident.

Few domestic pets have been killed or injured by wolves – far fewer than those hurt or killed by other wildlife, not to mention by vehicles -- and there are many means of protecting pets from wolves other than authorizing additional injurious or lethal take.

Provisions for increased injurious or lethal take would further depress wolf numbers, make it difficult for law enforcement to distinguish between legal and illegal take (which may only be identified through the unknowable intentions of a person that takes a wolf), and create significant additional hurdles for successful prosecution of illegal take.

Removal of wolves from the wild for any and all reasons must be dramatically reduced in a new rule. Authorized take of wolves is the primary cause of the population's failure to reach objectives and projections, and such authorized take should, at the very least, be curtailed if not ended entirely.

Expansion of the Experimental Population Area will undermine Mexican wolf recovery. The recommendation in the Five Year Review to possibly expand the experimental population area is phrased dishonestly and is designed to accomplish the opposite of what it explicitly states is its intent. The recommendation calls for consideration of expanding the current Mexican Wolf Experimental Population Area's (MWEPA) outer boundaries to enable the wolf population "to exist within a metapopulation context consistent with Leonard et al. 2005 and Carroll et al. *in press.*" In subheading C, the recommendation also calls for allowing "wolves to disperse throughout the MWEPA, subject to management consistent with current Blue Range Reintroduction Project SOPs." Yet, expanding the MWEPA and establishing a metapopulation conflict and cannot be reconciled. And subjecting wolves throughout that expanded MWEPA to management consistent with current Blue Range Reintroduction Project SOPs would exacerbate the mismanagement that would preclude such a metapopulation.

Leonard et al's study indicates that more wolves must be allowed to survive, and must be restored to much broader regions, for true recovery to take place: "We suggest restoration goals might be reconsidered so as to better restore wolves to past population sizes and enable them to significantly influence the Rocky Mountain ecosystem." The authors make clear that they consider the Rocky Mountain ecosystem very broadly, to include "more open habitats" that contrast with "forested and mountain areas" (p. 7). They also make clear that past population sizes were on the order of several hundred thousand to two million wolves throughout North America.

The Carroll et al study makes clear that wolves in other parts of New Mexico or Arizona will have lower densities, and thus expanded home range requirements, than those in the Blue Range Wolf Recovery Area, while at the same time road densities are higher in other parts of these two states. In fact, Carroll et al rate most of the region south of the current MWEPA as too arid, and therefore insufficiently productive of wolf prey animals, to allow for wolf breeding within a standardized wolf territory size of 504 square kilometers (pp. 9, 14). However, Mexican wolves were originally found throughout these regions; thus, their territory sizes originally were, and would have to be once again significantly larger than Carroll et al use in their analysis (and which they stress "should be viewed with caution" (p. 25)). As a result, wolves would be even more likely to encounter livestock, and the livestock carcasses that often lead them to habituate to livestock, in the areas most likely to be targeted for expansion of the MWEPA.

Current management, and especially SOP 13 which requires removal and/or killing of wolves according to a rigid formula based on depredations, has led to a declining wolf population in the Blue Range Wolf Recovery Area. Yet, as shown, wolves outside the current recovery area will encounter livestock, and adverse ranching practices, more often than those within the recovery area. For wolves to survive elsewhere in these two states, there must be a lower mortality/removal rate (or a higher recruitment rate) than for them to survive in the Blue Range Wolf Recovery Area.

Instead, they will face higher rates of removal and government killing. Thus, Carroll's study, along with experience from the last nine years of reintroduction, indicates that adopting management consistent with that in the Blue Range Wolf Recovery Area will not allow for creation of a wolf metapopulation, especially if the MWEPA is expanded southward. In fact, adopting current management in particular in more arid regions, and those with higher road densities and higher livestock densities, will preclude survival and reproduction of wolves; it will prevent establishment of a metapopulation.

Even without adopting management consistent with current Blue Range Reintroduction Project SOPs into an expanded MWEPA, the expansion alone would preclude establishment of a metapopulation. Carroll et al's study indicates that wolf management in more arid areas with higher road densities will have to be more conservative (ie. lenient on the wolves) in order to enable wolf survival and reproduction. This would require either the government not killing as many wolves or private individuals not killings as many. To accomplish the latter, roads would have to be closed to provide for greater habitat security. Forest Service and BLM management plans do not call for significant road closures; thus, the mechanism to accomplish this would have to be critical habitat designation – which is precluded in experimental population areas.

To accomplish the former, wolves that prey on livestock would have to be allowed to survive in the wild, or husbandry measures would have to be adopted such as consistent removal of livestock that wolves don't kill prior to their locating and scavenging on them, to significantly reduce depredations. Yet, again, experimental populations have never received that level of forbearance; the stated purposed of designating them is precisely to allow for killing of depredating wolves and to avoid land use restrictions – including regulations concerning grazing on public lands. No matter what management is adopted from within the range of legal and bureaucratic possibilities, expansion of the MWEPA will preclude wolf survival and reproduction in a larger area, and thus preclude establishment of a metapopulation.

In contrast, allowing wolves to establish territories outside of the Blue Range Wolf Recovery Area but without expanding the MWEPA holds promise of contributing to creation of a metapopulation consistent with Leonard et al and Carroll et al.

Even if the logic of this recommendation was not pretzel-shaped and untenable, the recommendation's purview extends beyond responsibility for the Blue Range Wolf Reintroduction project and is properly categorized under recovery planning for the Mexican wolf – the bailiwick of a recovery team. It is simply inappropriate for inclusion in the present review. No matter how the historic range of the Mexican wolf is interpreted, and especially if the Service adopts Leonard et al's recommendation to prioritize "ecological rather than genetic heritage" (p. 7) in guiding places for future reintroductions, areas in Arizona and New Mexico north and south of the current MWEPA boundaries will be central to Mexican wolf recovery. By suggesting that significantly larger reaches of these two states than are already designated as the MWEPA will become part of the MWEPA, the review is infringing on key decisions of a recovery team in its creation of a recovery plan; these are not responsibilities related to success of reintroduction project goals in the Blue Range Wolf Recovery Area.

For example, the recovery team may decide that designation of critical habitat will be necessary for recovery. Yet, as noted above, critical habitat would be precluded and preempted in areas covered by expansion of the MWEPA. Even without critical

habitat designation, the recovery team might conclude that full protection of Mexican wolves to be reintroduced in Mexico should be afforded to those that cross over into the United States. Again, such protection would be precluded by expansion of the MWEPA.

There is no need to expand the MWEPA in order to promulgate and finalize a rule change allowing wolves to roam outside of the Blue Range Wolf Recovery Area. In the northern Rocky Mountains, wolves roam in areas where they are designated as experimental, non-essential and in areas where they are not so designated – and the Service has no rule requiring removal of wolves that cross any jurisdictional boundaries. The Service should categorically reject this recommendation in its entirety.

The goal of at least 100 wolves in the Blue Range Wolf Recovery Area should not be changed. The recommendation in the Five Year Review to take this goal and apply it to a much larger area aggravates the destructiveness of the recommendation to expand the experimental population area. The demographic goal of the Mexican Wolf Reintroduction Project for the Blue Range Wolf Recovery Area is a minimum of 100 wolves. The 1982 Mexican Wolf Recovery Plan calls for establishing two viable wolf populations in the wild as a necessary but not sufficient step toward recovery. Whether or not the MWEPA is expanded in size, transferring the population goal for the Blue Range Wolf Recovery Area to the much larger MWEPA amounts to diluting the number of wolves per acre, or conceived in a slightly different frame, lowering the demographic bar for the Blue Range Wolf Recovery Area. But the Five Year Review notes that the Blue Range Wolf Recovery Area could support 213 wolves based on elk biomass, and 468 wolves based on the biomass of all wild ungulates (TC-18). So there is no reason to lower the minimum number from 100 wolves, except as a means of avoiding necessary and overdue reforms that would enable the Blue Range Wolf Recovery Area to grow to (and beyond) this minimal goal. Furthermore, it is clear that 100 wolves does not comprise a viable population.

The Service incorrectly depicts the range of the Mexican wolf in its “virtual public meeting” Web site at <http://www.mexicanwolfeis.org> and in a display at the scoping meetings. While it is correct that “results from recent genetics examining historic Mexican gray wolf specimens collected in 1916 and earlier (Leonard et al. 2005, pp. 10, 15) suggest that Mexican gray wolves genetically intergraded with more northern subspecies well into Colorado and Utah,” as the present notice states, such intergradation is not evidence of Mexican wolves themselves located “well into” these states, but of genetic material that originated in Mexican wolves -- perhaps from many successive matings between neighboring wolves. The closest evidence of strong intergradation in Leonard et al is of a single wolf in the San Luis Valley on the New Mexico/Colorado border; other intergradation is more attenuated.

The final delisting notice for the Western Great Lakes gray wolf population on Feb. 8, 2007 incorrectly lists the wolf in Mexico as off the endangered species list. This should be expeditiously corrected.

We also incorporate by reference the comments of the Rewilding Institute on the present notice, and endorse such comments except in any instance in which they are at

odds with our own comments, above. Finally, we incorporate by reference the Center for Biological Diversity's comments on May 30, 2006 on the Five Year Review, pursuant to the Federal Register notice of May 15, 2006 (Volume 71, Number 93) on Mexican Gray Wolf Blue Range Reintroduction Project Five-Year Review.

Thank you again for the opportunity to comment.

Sincerely,

(signed)

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