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August 29, 2017

Public Comments Processing  
Attn: Docket No. FWS-R2-ES-2017-0036  
U.S. Fish and Wildlife Service,  
New Mexico Ecological Services Field Office,  
2105 Osuna Road NE,  
Albuquerque, NM 87113  
Submitted via [www.regulations.gov](http://www.regulations.gov)

**Re: Comments on Mexican Wolf Draft Recovery Plan, First Revision (Docket #: FWS-R2-ES-2017-0036)**

Dear Regional Director Tuggle,

Please accept the following comments on the U.S. Fish and Wildlife Service's (FWS) Mexican Wolf Draft Recovery Plan, First Revision and associated documents and appendices (82 Fed. Reg. 22918-22920, June 30, 2017), which requests "comments on the recovery strategy, recovery criteria, recovery actions, and the cost estimates associated with implementing the recommended recovery actions."

As I will emphasize below, my review of the draft plans indicates that it offers impractical recovery actions which render moot the overall recovery strategy. Not surprisingly, the cost estimates are wholly unacceptable. After review of the draft plan I am troubled by several specific aspects of it including the requisite intensity of future releases, wolf-livestock interactions and reliance on chronic diversionary feeding of wolves to manage those interactions, woefully inadequate habitat model, excessively optimistic Vortex model, absence of a statutorily based recovery mandate for Mexico, and excessive projected costs. Each is briefly considered below.

My qualifications to review the draft recovery plan and associated documents stem from my more than three decades of work as a wildlife biologist actively involved with wolf recovery and research and countless other endangered species conservation efforts. I have served on every Mexican Wolf Recovery Team that the FWS has convened since 1995. I was an active participant in the recent recovery planning workshops that preceded development of the current draft recovery plan. I led the red wolf recovery effort from 1986 to 1994 and the Yellowstone wolf restoration project from its inception in 1994 thru 1997. At that time I left the Department of Interior to co-found with Ted Turner the Turner Endangered Species Fund and Turner Biodiversity Divisions. Since inception they have collectively comprised the largest and most significant private effort in the world to redress the extinction crisis by carrying out reintroduction projects to improve the conservation status of imperiled plants,



birds, fishes, mammals, reptiles, amphibians, and invertebrates. I am deeply experienced with imperiled species reintroduction efforts and the federal Endangered Species Act (ESA).

In addition to my work as a conservation scientist, I have served in the Montana legislature since 2006. I will hold my state senate seat through December 2020. Since serving as a legislator I have developed a firm understanding of the various policy aspects of wolf recovery.

### **INTENSITY OF FUTURE RELEASES**

Recovery criteria call for 22 "effective releases" into the Mexican Wolf Experimental Population Area (MWEPA in Arizona and New Mexico)) and 37 into Sierra Madre Occidental – North (SMOCC-N). The draft plan assumes that such effective releases will ensure that 90% of the genetic diversity of the captive population is represented in the two wild populations.

To achieve the effective releases and subsequent genetic representation in the **MWEPA population, 28 adults and 42 pups need to be released. It is important to note that this is twice the original seven pairs tagged for release in the recent EIS that established the MWEPA.**

To achieve this, under the [EISx2] 20\_20 scenario, a total of 14 pairs are released from the SSP captive population to the MWEPA population, (which is double the original 7 pairs tagged for release in the recent EIS). This is equivalent to 28 adults and 42 pups, given that the Service is assuming that 3 pups are released per pair. Based on survival rate estimates, the draft recovery plan concludes that the total number of wolves that would survive to breeding age in MWEPA after release (i.e., they become effective simply because they survived which is a sketchy assumption) from the SSP would be 22.

To achieve the effective releases and subsequent genetic representation in the **SMOCC-N population, 40 adults and 60 pups need to be released.**

Under the same [EISx2]20\_20 scenario, a total of 10 pairs are released from the SSP to the SMOCC-N population. This is equivalent to 20 adults and 30 pups. Additionally, this scenario calls for the translocation of 10 pairs from MWEPA to SMOCC-N. This is also equivalent to 20 adults and 30 pups. Based on survival rates estimates, the draft recovery plan concludes that the total number of wolves that would survive to breeding age in SMOCC-N after releases from the SSP and translocation from MWEPA (i.e., they become effective simply because they survived which is a sketchy assumption) would be 37.

I do not think this level of release intensity (68 adults and 102 pups), to say nothing of the survival rates and subsequent successful reproduction by surviving animals, has never been achieved by any wolf restoration effort, let alone the Mexican wolf recovery program since reintroductions began in 1998. Consequently, the requisite number of releases seems unrealistic.



Moreover, even though the states of New Mexico and to a lesser extent Arizona, have a long history of resisting releases of adult wolves, lines 684-688 of the draft recovery plan indicate:

“In order to achieve the genetic criteria for downlisting and delisting the Mexican wolf in this Plan, the states of New Mexico and Arizona, and the Mexican government, will determine the timing, location and circumstances of releases of wolves into the wild within their respective states, and Mexico, from the captive population, with the Service providing collaborative logistical support and facility of those recovery actions.”

The language makes clear that the states and Mexico have the authority to veto releases that are called for by the draft recovery plan. This is troubling given the states' history of resisting the release of adults wolves and pups older than a few weeks and the lack of mandatory duty for any state to advance recovery under the federal ESA.

It is troubling that the Service would voluntarily abdicate authority for conducting releases that are identified as requisites to Mexican wolf recovery. I suppose one could hope that if the states has overarching authority over when and where releases occur and a population target number has been set (i.e., 8-year average of  $\geq 320$  Mexican wolves in MWEPA, 8-year average of  $\geq 170$  wolves in SMOCC-N) they would be incentivized to accomplish the requisite releases. But this assumes that the states desire recovery (i.e., delisting of the Mexican wolf).

A case can be made, however, that with the draft recovery plan proposing that the agencies curtail population growth between 320 and 380 in MWEPA (and capping the SMOCC-N population at 200), that continued protection under the ESA and active federal involvement in daily management of wolves will be considered quite acceptable to New Mexico and Arizona. As a state legislator for the last decade, I know that state agencies typically are fiscally challenged. With that in mind and with active federal involvement to limit Mexican wolf population growth to between 320 and 380 animals, a case can easily be made that the states would be foolhardy to actively support delisting and the financial consequences that would arise as the FWS terminates involvement in Mexican wolf management due to delisting.

In the Northern Rocky Mountains, the states of Idaho, Wyoming, and Montana were keenly motivated to support delisting in order to allow for aggressive recreational killing programs (i.e., hunting, trapping) designed to effect a reduction in wolf population size. With the draft recovery plan indicating the Service's inclination to cap Mexican wolf population growth in MWEPA, there is no need for Arizona and New Mexico to desire recreational killing programs to achieve the same.

Concerning releases in Mexico, the USFWS has no statutory authority in that country.

Given the complex administrative arrangements that have defined the Mexican wolf population restoration effort from day one in the area that is now the MWEAP, the very significant challenges of working in Mexico (from administrative cross-border issues to the physical safety of field biologists working in areas controlled by drug cartels), and very real



limits of the Mexican wolf SSP captive population to provide high quality animals for release, I am very skeptical that the Service will achieve the releases over a reasonable period of time as called for by the draft plan.

Just imagine that in fairly short period of time, because a long period of time would further erode the genetic vigor of both free-ranging populations, the Service and colleagues in Mexico will need to release at least 28 adults and 42 pups and 20 adults and 30 pups, respectively from the SSP population (captive population of Mexican wolves) because the aim of the releases is to ensure that both wild populations include 90% of the genetic diversity of the captive population. I wonder where, specifically, will the 48 adults and 72 pups come from. Providing that number of animals in a short period of time is a very tall order for the SSP population. Notably, the draft recovery plan does not recommend a significant increase in the scope of the Mexican wolf captive population to account for the needs of the reintroduction projects in the US and Mexico.

Please note that the above says nothing about the ability of the wild population in the MWEPA to serve as a donor of 20 adults and 30 pups for translocation to Mexico. Like the demands placed by the draft recovery plan on the SSP population, onerous and unrealistic demands are placed on the wild population in the MWEPA, which, by the way needs to realize growth from its current level of ~ 100 animals to  $\geq 320$  animals as averaged over an 8-year period of time.

I wonder how fieldwork will be completed to ensure that a sufficient number of those wolves (68 adults and 102 pups in total) truly become "effective". It's a bit perplexing that the draft recovery plan: 1) assumes that animals released in the future will become breeders simply by surviving, and 2) does not emphasize the need for fieldwork to collect reliable empirical evidence of released wolves actually breeding and successfully rearing pups to an age of independence with concomitant potential to contribute to the numerical and genetic health of the population.

All in all, one could fairly conclude that the required frequency of release of captive animals to MWEAP (28 adults and 42 pups) and SMOCC-N (20 adults and 30 pups) and the transfer of wild wolves from MWEPA to SMOCC-N (20 adults and 30 pups) and the resulting myriad of assumptions about survival rates and subsequent reproduction probabilities (78% of adult females in any given year breed with a male) makes the Vortex model highly optimistic if not an outright fantasy.

If I am right, it is highly unlikely that the required genetic representation in the wild populations (90% of the captive population) will be achieved. Curiously, the specific delisting criterion that considers genetic representation of the captive population in the wild population does not specify a numerical threshold (i.e., 90%) but rather includes the following, somewhat ambiguous language: "Gene diversity available from the captive population has been incorporated into the MWEAP through scheduled releases of a sufficient number of wolves to result in 22 released Mexican wolves surviving to breeding age in the MWEPA (and 37 in the SMOCC-N)."



## **WOLF-LIVESTOCK INTERACTIONS AND CHRONIC DIVERSIONARY FEEDING OF WOLVES TO MANAGE THOSE INTERACTIONS**

I find it instructive that 70% of the 177 removals referred to in the draft plan were related to livestock and boundary violations. Absent extensive supplemental feeding (now known as diversionary feeding because it aims to divert the wolves' attention away from cattle) it is easy to imagine wolf removals due to conflicts with livestock increasing to an unsustainable level.

It is important to note that chronic diversionary feeding of wolves in the US stands as an unequivocal statement about the marginal suitability of habitat in the MWEPA. That this feeding is commonplace as the restoration projects enters its 20<sup>th</sup> year with only ~ 100 free-ranging animals in place makes clear that the habitat of MWEPA has questionable ability to support an 8-year average of  $\geq 320$  wolves as called for by the delisting criteria in the draft recovery plan.

It is important to note that chronic general feeding of wolves in Mexico stands as an unequivocal statement about the marginal suitability of habitat in the SMOCC-N. That this general feeding is commonplace with only ~ 25 free-ranging animals in place makes clear that the habitat of SMOCC-N has questionable ability to support an 8-year average of  $\geq 170$  wolves as called for by the delisting criteria in the draft recovery plan.

More and more, despite the presence of expansive public lands and robust prey populations in the US, the Mexican wolf recovery program seems to be evolving such that chronic management (e.g., continued and chronic diversionary feeding in the US and general feeding in Mexico) is the overriding characteristic. The draft plan seems to set the intellectual footing for the Mexican wolf to be pigeon-holed as a "conservation reliant" species with concomitant acceptance that traditional delisting, such that post-delisting management is not particularly intense or widespread, is highly unlikely.

Up until recently, I would never have predicted such a future for the gray wolf anywhere in the southwestern US (from west-central Colorado, east-central Utah, and all of Arizona and New Mexico), an area characterized by millions of acres of federal public land that support robust populations of native prey and where wolves would receive sufficient consideration for a viable population to persist with great certainty. Of course, the most promising area for recovery of *Canis lupus baileyi* is the Southern Rockies Ecoregion (SRE) of western Colorado and north-central New Mexico. This area is not considered in the draft recovery plan because of the FWS's reliance on a habitat suitability model that indicates that sufficient suitable habitat exists in Mexico. Unfortunately, that habitat model is woefully inadequate as explained below.

## **WOEFULLY INADEQUATE HABITAT MODEL**

I appreciate the following text from pages lines 1018 – 1025 of the habitat model:

"We consider that recovery efforts should focus in areas where conditions – both environmental and social– are favorable. This habitat suitability analysis is **only the first of a series of steps** that should be considered to select specific sites for further releases.



Therefore, the scope of this study is to identify those areas in which suitable habitat conditions prevail and thus fieldwork should be initiated to evaluate environmental parameters like prey and cattle density, habitat condition, and social aspects such as land tenure, attitude towards the presence of wolves, and safety conditions for field teams, among others.” That the habitat suitability analysis is identified as just the first of many steps is quite interesting, and is the first hint that the analysis is insufficient as the undergirding for the draft recovery plan.

The gray wolf is one of the most intensively studied large mammals in the world. The biological requirements for the species are well understood as are the biological and socio-political requirements for population establishment/persistence and eventually recovery. From the work in the US since the early 1970s those requirements have been: large tracts (millions of acres) of federal public lands, robust populations of widely distributed prey, relative scarcity of livestock (cattle and sheep), and properly constructed and enforced wildlife protection laws (e.g., the ESA).

**The primary shortcoming of the draft recovery plan is an unjustified reliance on a niche-centric habitat model that concluded that Mexico possesses sufficient habitat to support restoration efforts to establish a wolf population (of 170 animals) that counts toward recovery. Indeed, that conclusion is the linchpin of the draft recovery plan. Absent that conclusion, the draft recovery plan would have offered the reliable and common sense observation that insufficient habitat exists in Mexico and recommended that including the SRE of New Mexico and Colorado in the Mexican wolf recovery region was supported by the best scientific and commercial data available and was required to achieve recovery.**

It is plainly obvious that it is inappropriate for the FWS to rely on a habitat model for Mexico that says nothing useful about native prey populations based on reliable survey data because such data do not exist and nearly completely ignores the issue of livestock abundance and distribution and patterns of land ownership. These latter two points are especially troubling since human-caused mortality due to real and perceived conflicts with livestock, especially on private land, has always been the only real threat to the gray wolf. Is it beyond irresponsible for the FWS to establish as undergirding for the draft recovery plan a habitat model for Mexican wolves that does not include: 1) a specific data layers for livestock abundance and distribution, and 2) a specific layer for land ownership.

It is equally perplexing for the FWS to embrace a habitat model that observes “Our estimates of prey density ... come with significant uncertainty, mainly for the Mexican portion of the distribution of the wolf ... information on ungulate density in Mexico is poor.” Why? Because it is well known that in areas where human-caused mortality is low, the vast majority of variability in wolf population size is a function of prey biomass.

Yet the habitat model that the FWS uses as undergirding for the recovery plan completely ignores the most common cause of human-caused mortality, real and perceived conflicts with livestock, and offers no useful empirical data about prey abundance and distribution (because



such data do not exist) which is widely known to have a cardinal influence of wolf population dynamics.

It simply is beyond the pale for the FWS to call for restoration activities to establish a population counts toward recovery across a landscape in Mexico that is overwhelmingly characterized by private land that supports abundant livestock and an unknown if not scarce native prey population across which wildlife protection laws are infrequently enforced. Notably, the FWS would never use such a landscape in the US for wolf restoration purposes.

As I reviewed the draft recovery plan and the cardinal importance of the habitat suitability model (that in reality is only marginally useful at best because of the shortcomings identified above) it seems odd that a northern option for satisfying the population (and genetic) requirements for downlisting and delisting was not offered for consideration at least through the review process. It is worth noting that all previous Mexican wolf recovery planning efforts concluded that abundant sufficient habitat existed in the SRE.

Given that the habitat model in the draft recovery plan presents no empirical evidence of suitability and mostly avoids the only real threat wolves have ever faced (i.e., mortality due to conflicts with livestock), it was incumbent on the FWS to have included in the draft recovery plan an approach to recovery based on a recovery region that included the SRE. Indeed, given the solid and comprehensive work of previous Mexican recovery teams that all recommended including the SRE in the Mexican wolf program, it is unacceptable that no functional regard was given to that work in the draft recovery plan. It is almost as though all that previous work did not exist. I would never have predicted that such reliable science would have been so willingly brushed aside. That it was so set aside represents effective political pressure applied by Arizona, New Mexico, Utah, and Colorado and the height of administrative arrogance on the part of the FWS and reveals the patently arbitrary and capricious nature of the draft recovery plan.

I wonder how practical Mexican wolf recovery would be, in a comparative sense, if the abundant and highly suitable habitat of the SRE had been considered in the draft plan. Conversely, I wonder what that habitat model in the draft recovery plan would have produced if data layers for livestock abundance and distribution and land ownership had been included.

In sum, it seems patently arbitrary and capricious and decidedly political for the draft recovery plan to only consider the “southern option” (i.e., recovery from central Arizona and central New Mexico south into Mexico), from which ~ 35% of recovery objectives must be achieved across a social and biological landscape that the FWS would never use for wolf reintroduction efforts in the US.

#### **EXCESSIVELY OPTIMISTIC VORTEX MODEL**

It is important to note that all or almost all of the Vortex scenarios that were tested resulted in populations that were declining about 40 years from inception but the FWS felt it appropriate to projects that delisting could occur within 25 to 35 years.



That the Vortex model settled on the same number of wolves currently authorized to exist in the US as the right number for long-term viability seems to have resulted from the model being somewhat applied backwards from a predetermined outcome: that ~ 325 would be the maximum number of wolves allowed to exist in the southwestern US, as the population cap previously fought for by the states and legally formalized in the 2015 revision of the 10(j) rule that created the MWEPA.

The draft plan gives great emphasis to the fact that both the MWEPA and SMOCC-N populations will be chronically supplemented with individuals from the captive population.

This seems a strange recovery strategy that assumes a large long-term role for the network of zoological facilities that maintain Mexican wolves in captivity. It is truly odd, for a species that is as fecund as the gray wolf and one that could be restored to expansive habitat such that rapid population growth could be realized, that the draft recovery plan would recommend long-term reliance on captive animals.

Long-term reliance on the captive population is, however, consistent with long-term diversionary feeding and the harmful intimation that self-sustaining populations are no longer required by the ESA. This is, of course, another example of the FWS prematurely relying on intellectual footing to relegate the Mexican wolf to the ranks of “conservation reliant species”.

#### **ABSENCE OF STATUTORILY BASED RECOVERY MANDATE FOR MEXICO**

It appears that there is no law in Mexico that more or less aligns with sections 4, 6, 7, 9, and 11 of the ESA. Absent a statutory mandate in Mexico, it seems reasonable to conclude that recovery is a discretionary activity for Mexican officials. If so, it is truly curious that the draft recovery plan would abdicate the FWS’s statutory mandate to advance recovery to governmental officials representing another country who operate under no such mandate.

Not surprisingly, the text on pages 24 and 25 of the draft plan left me wondering if “... *necessary legal arrangements* ...” still need to be developed to advance useful certainty for the recovery of the Mexican wolf.

As best I can tell, there is no clear, undeniable mandate for the Mexican government to recover the Mexican wolf. With this in mind, it struck me as odd that ~ 35% of the recovery criteria would be relegated to Mexico. I’m wondering if such shifting of responsibility under the ESA is commonplace for species with historical ranges that extend beyond the continental US. If so, one has to wonder why *Canis lupus* was ever listed since the species has always been common across Canada and Alaska.

While I can and do support the restoration work that is being done in Mexico, I remain skeptical that a sufficient legal structure exists such that that work can reasonably be expected to contribute to Mexican wolf recovery under the ESA.



### **EXCESSIVE PROJECTED COST**

Ultimately the future for *Canis lupus baileyi* might be based on fiscal matters. As offered by the draft recovery plan, the estimated ~ \$240 M expenditure to establish an 8-year average of  $\geq 320$  wolves in the US, and ~ \$25 M for an 8-year average of  $\geq 170$  wolves in Mexico, might prompt the most ardent wolf supporter to blink in dismay. I, for one, am having a very hard time accepting the estimated costs as a requisite for recovery when clearly more certain and far more affordable options exist for recovering the Mexican wolf.

To wit, costs could be significantly reduced and certainty maximized if the MWEPA only had to contribute the population of  $\geq 170$  wolves because the second population of  $\geq 320$  could be established at an even better site in the US. A site so well suited to *Canis lupus baileyi* that you could imagine a population of 100+ wolves (including many wild-born animals) by years 5 – 7 of any properly designed and managed reintroduction effort. A site so well suited to *Canis lupus baileyi* that you could fairly imagine that chronic intensive management (e.g., frequent feeding of wolves to divert their attention way from livestock fully 20 years after the restoration effort had begun) would not be needed.

Such a site does exist and it has been well studied -- the SRE of western Colorado and north-central New Mexico.

It seems beyond reasonable to expect that Mexican wolf recovery would cost far less than ~ \$260 M if the two subpopulations called for by the Vortex model could be established in the US, especially if one occupied the SRE – a prey rich area that is relatively lightly used by livestock, includes millions of acres of secure public land and across which wildlife conservation was a priority and wildlife protection laws are routinely and effectively enforced. Curiously and inexplicably, and much to the detriment of the Mexican wolf, the draft recovery plan did not include an analysis of recovery across a region that included the SRE.

### **SUMMARY**

The FWS seems comfortable offering the notion that the final recovery plan will serve a guide for the way forward rather than a contract. But it is reasonable to expect, based on historic criticisms of the FWS, that such a notion is misguided. While the notion is imminently defensible, because recovery plans do in fact serve as guidelines that are subject to periodic review and change, recovery plans are absolutely seen as much more than that by state officials and the public. In the court of public opinion the specifics of recovery plans are seen as promises. Consequently, recovery plans need to be the best they can be. To think otherwise is naïve.

In my opinion, the draft recovery plan responds well to political pressure but equally poorly to the needs of the Mexican wolf and the public wildlands of the southwestern US.

The draft recovery plan will not lead to the recovery of the Mexican wolf, unless it is significantly altered to address at least the shortcomings identified above. If the final plan is a close reflection of the draft, then I am confident in predicting that it will set the Mexican wolf adrift for decades without ever approaching the shore of recovery.



In the strongest terms possible I reject the draft recovery plan as woefully inadequate. I recommend that the FWS significantly revise it by extending the Mexican wolf recovery region to include the SRE and adopting recovery criteria that indicate that delisting would be possible when: 1) an 8-year average of  $\geq 170$  wolves occupy the MWEAP, 2) an 8-year average of  $\geq 450$  wolves occupy the SRE, 3) the two populations had been connected via one effective migrant every fourth year, and 4) the states of Arizona, New Mexico, and Colorado had finalized wolf management plans that provided adequate regulatory assurance that the first three aspects of the delisting criteria would be maintained in perpetuity.

Thank you for considering my outright rejection of the draft recovery plan and recommendations for modifying it to ensure sufficiency in a manner that comports with the spirit and intent of the ESA.

Sincerely,

A handwritten signature in blue ink that reads "Mike Phillips". The signature is stylized with a large, flowing "M" and "P".

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