U.S. Department of Interior, Fish and Wildlife Service

RECORD OF DECISION

Proposed Revision to the Regulations
for the
Nonessential Experimental Population of the Mexican Wolf (*Canis lupus baileyi*)

This Record of Decision (ROD) has been developed by the U.S. Fish and Wildlife Service (USFWS, Service) in compliance with the agency decision-making requirements of the National Environmental Policy Act of 1969, as amended (NEPA; 40 CFR 1505.2). The purpose of this ROD is to document the decision of the Service for the selection of an alternative to implement the proposed action of the Final Environmental Impact Statement (Final EIS) for the *Proposed Revision to the Regulations for the Nonessential Experimental Population of the Mexican Wolf (Canis lupus baileyi).* The alternatives we considered were fully described and evaluated in the November, 2014, Final EIS for the project.

This ROD states the Service's decision and presents the rationale for its selection. In the ROD we provide a summary of the alternatives considered in the Final EIS and identify the alternative which we consider to be environmentally preferable. We also address the measures we will adopt to avoid or minimize environmental harm from implementation of the selected alternative and the monitoring and enforcement program that we will use to evaluate the success or failure of our management actions and mitigation strategy.

Decision

Based on our review of the alternatives and their possible environmental consequences, we select Alternative One (Proposed Action and Preferred Alternative) as described in our Final EIS. The selected alternative will be implemented through issuance of a final nonessential experimental population rule (final 10(j) rule), an Endangered Species Act Section 10(a)(1)(A) research and recovery permit, and provision of federal funding.

Summary of Each Alternative Considered in the Final EIS

We developed a range of alternatives, including the Proposed Action and No Action alternative, for our proposal to revise the regulations established in our 1998 Final Rule for the nonessential experimental population of the Mexican wolf. The alternatives we selected for further evaluation in the Final EIS were developed based on the experience and information we have gained since we began the reintroduction of Mexican wolves in the United States in 1998, the recommendations of our three- and five-year program reviews, our 2010 Mexican Wolf Conservation Assessment, and scientific literature on gray wolves. We also incorporated input received from the public, cooperating agencies, tribes, stakeholder groups, agencies, and local governments during scoping and the public review period on the proposed revisions to the experimental population rule and the Draft EIS. Using our alternative selection criteria, we eliminated from further consideration a number of proposals for geographic boundary and management changes that were not economically or technically practical or feasible and/or did not substantially meet the purpose of, and need for, the proposed action. Alternatives brought forward for detailed analysis in the final EIS were the proposed action, two additional action alternatives, and the no action alternative.

Alternative One (Proposed Action and Preferred Alternative)

Alternative One is our proposed action and preferred alternative. Under this alternative we would establish a Mexican wolf experimental population objective of 300 to 325 wolves within the entire MWEPA. Under this alternative we would expand the area in which initial releases of Mexican wolves from captivity could occur and extend the southern boundary of the MWEPA in Arizona and New Mexico to the United States-Mexico international border. Within the expanded MWEPA we would

discontinue the designation of the BRWRA and its divisions of primary and secondary recovery zones. This alternative would establish three management zones within the MWEPA. Zone 1 is an area within the MWEPA where Mexican wolves would be allowed to naturally disperse into and occupy and where Mexican wolves may be initially released from captivity or translocated. Zone 2 is an area within the MWEPA where Mexican wolves would be allowed to naturally disperse into and occupy and where Mexican wolves may be translocated and where limited initial releases may occur. Zone 3 is an area within the MWEPA where Mexican wolves would be allowed to disperse into and occupy but neither initial releases nor translocations would occur. Zone 3 is an area of less suitable Mexican wolf habitat where Mexican wolves would be more actively managed under the authorities of the proposed rule to reduce human conflict. Within the proposed management zones we would conduct management actions intended to further the conservation of the Mexican wolf while being responsive to the needs of the local community in cases of livestock depredation or nuisance behavior by wolves. Under this alternative we would adopt a phased management approach to minimize or avoid possible impacts to wild ungulate populations (specifically elk) in portions of western Arizona. Under the authority of a revised section 10(a)(1)(A) research and recovery permit we would authorize removal of Mexican wolves that can be identified as coming from the experimental population that disperse to establish territories outside of the MWEPA. Based in part on their genetic value relative to the Mexican wolf population, we may make a determination to translocate them to areas of suitable habitat within the MWEPA, transfer them to the reintroduction project in Mexico, or maintain these wolves in captivity. Alternative One would:

- Expand the area within which Mexican wolves can naturally disperse and occupy from 7,197 mi^2/18,639 km^2 (the current BRWRA) to approximately 153,871 mi^2/398,524 km^2 with 32,244 mi^2/83,512 km^2 of suitable wolf habitat (the expanded MWEPA);
- expand the area within which Mexican wolves can be released and translocated;
- include a phased management approach in Arizona west of Highway 87 for a period of up to 12 years;
- extend the MWEPA's southern boundary from I-10 to the U.S.-Mexico border in Arizona and New Mexico to provide for a larger area where management flexibility applies;
- designate three wolf management zones within the expanded MWEPA;
- provide additional or revised provisions for take of Mexican wolves under certain circumstances to protect livestock and non-feral dogs, or as needed to manage wild ungulate populations (particularly elk and deer);
- provide for the development of management actions on tribal trust land or on private land in management Zones 1 and 2;
- revise and reissue the Mexican Wolf Recovery Program's section 10(a)(1)(A) research and recovery permit so that it applies to both the MWEPA and areas outside of the MWEPA, and;
- provide for a population objective of 300-325 Mexican wolves in the MWEPA. This population objective may change as necessary to accommodate a new, peer reviewed, recovery plan.

Alternative Two

Alternative Two would include all the initiatives proposed under Alternative One except under this alternative we would **not:** adopt a phased management approach; establish a Mexican wolf experimental population objective of 300 to 325 wolves within the entire MWEPA, or; expand the geographic boundaries of the proposed management Zone 1 beyond the Apache and Gila National Forests (the existing BRWRA).

Alternative Three

Alternative Three would include all the initiatives proposed under Alternative One except under this alternative we would **not:** adopt a phased management approach; establish a Mexican wolf experimental population objective of 300 to 325 wolves within the entire MWEPA, or; include proposed management changes that would modify the regulations for take of Mexican wolves within the MWEPA.

Alternative Four (No Action)

Under Alternative Four no changes to the 1998 Final Rule for the Mexican wolf or the Mexican Wolf Recovery Program's section 10(a)(1)(A) research and recovery permit (TE-091551-8 dated 04/04/2013) would be made.

Environmentally Preferred Alternative

We consider Alternative Three to be the environmentally preferred alternative based on the conservation benefit that would be achieved for the Mexican wolf compared with the other alternatives. Under Alternative Three, we predict the experimental population would grow to around 534 wolves within 17 years. The population would reach a similar size under Alternative Two at 19 years, but would be managed to maintain a smaller population size of 300 to 325 under Alternative One. Generally speaking, larger populations are more persistent than smaller populations; therefore the larger population achieved under Alternatives Two and Three would better contribute to the persistence of the experimental population compared with Alternative One. Alternative Three does not include several take measures that are included in Alternatives One and Two related to unacceptable impacts to ungulates and Mexican wolf depredation of livestock or domestic animals. As a result, Alternative Three would result in slightly faster population growth than either of the other action alternatives. The area available for the initial release of wolves is limited to the Apache and Gila National Forests under Alternative Two. Under Alternative One the area available for the initial release of wolves is constrained to the area of Zone 1 east of Highway 87 in Arizona during at least the first 5 years (and up to 12 years) of implementation. Therefore, relative to Alternatives One and Two, Alternative Three provides a larger area of unoccupied suitable habitat in which to conduct initial releases sufficient to achieve the level of effective migration (i.e., recruitment from the captive population) we estimate is necessary to improve the genetic variation of the experimental population. Based on these comparisons, Alternative Three maximizes the population growth, distribution, and recruitment that would contribute to the persistence of, and improve the genetic variation within, the experimental population of Mexican wolves. For these reasons, we consider Alternative Three to be the environmentally preferred alternative.

Rationale for Decision

Under all three of the action alternatives we brought forward for further consideration we would: expand the area in which initial releases of Mexican wolves from captivity could occur; extend the southern boundary of the MWEPA in Arizona and New Mexico from I-10 to the United States-Mexico international border; expand the area within which Mexican wolves can disperse and occupy; expand the area within which we can translocate wolves; designate three wolf management zones, and; conduct management actions within these zones intended to further the conservation of the Mexican wolf while being responsive to the needs of the local community in cases of depredation or nuisance behavior by Mexican wolves.

We have selected Alternative One (proposed action and preferred alternative) as described in the Final EIS for implementation based on consideration of a number of environmental (e.g improving the effectiveness of the Reintroduction Project) and social (e.g. minimizing and mitigating the possible impacts of our action on local communities) factors as well as national policy and the Service's statutory mission as set forth under the Endangered Species Act of 1973, as amended (ESA, the Act). The purpose of the ESA is to protect and recover imperiled species and the ecosystems upon which they depend. National policy as set forth in section 2(c) of the Act is for all Federal departments and agencies to "seek to conserve endangered species and threatened species" and to "utilize their authorities in furtherance of the purposes" of the Act. The ESA is administered by the Interior Department's U.S. Fish and Wildlife Service and the Commerce Department's National Marine Fisheries Service (NMFS). The USFWS has primary responsibility for terrestrial and freshwater organisms. The mission of the USFWS is:

"Working with others, to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people."

This mission statement reflects the direction of the Act under section 6(a) that in carrying out the program authorized by the ESA "the Secretary shall cooperate to the maximum extent practicable with the States" and, under section 10(j), that, to the maximum extent practicable, experimental population rules represent an agreement between the Service, the affected State and Federal agencies, and persons holding any interest in land that may be affected by the establishment of an experimental population. Under 50 CFR 17.81(d), the Service must consult with appropriate State game and fish agencies, local governmental entities, affected Federal agencies, and affected private landowners in developing and implementing experimental population rules.

In making this decision we have fully considered Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (59 FR 7629) and have sought to minimize through the adoption of mitigation measures any disproportionate adverse impacts that may occur from implementation of the selected alternative. While all of the action alternatives meet our purpose to conserve the Mexican wolf by improving the effectiveness of the Reintroduction Project in managing the experimental population as described in the Final EIS, Alternative One provides more mechanisms to minimize and mitigate the possible impacts of our action on local communities, including ranching and livestock production entities, and on the native ungulate prey base, than the other alternatives. In other words, Alternative One achieves our conservation objective in a manner that is responsive to many of the concerns we have heard from the public and our state, federal, tribal, and local partners.

Alternative One Compared to Alternative Two

We selected Alternative One over Alternative Two for several reasons. Both alternatives provide additional suitable, unoccupied habitat for the initial release of Mexican wolves from captivity. The release of more Mexican wolves from captivity is expected to improve the genetic variation within the experimental population and provide for population growth. Alternative One has a larger area available for initial releases compared to Alternative Two. Alternative Two would expand the area (Zone 1) for the initial release of Mexican wolves to the entire Gila and Apache National Forests, which are currently designated as the BRWRA under the 1998 Final Rule. Alternative One would expand Zone 1 to include not only the Apache and Gila National Forests, but also the Sitgreaves National Forest, the Magdalena Ranger District of the Cibola National Forest, and the Payson, Pleasant Valley, and Tonto Ranger Districts of the Tonto National Forest. The additional national forest land available in Zone 1 under Alternative One provides an area approximately 42 percent larger for the initial releases of wolves. Accordingly, when compared to Alternative Two, Alternative One provides a larger area and therefore more flexibility in selecting the best possible initial release sites. Without this level of flexibility we could, over time, be constrained in our ability to locate appropriate sites for the initial release of wolves. Based on the current distribution of wolves and available suitable habitat, we predict that Alternative Two would allow an additional 2 to 3 packs to be established via initial release, while Alternative One will allow for the establishment via initial release of from 7 to 8 packs. For this reason, Alternative One will further the conservation of the Mexican wolf by improving the effectiveness of the Reintroduction Project in managing the experimental population better than Alternative Two.

Alternative One contains two provisions that provide for coordination with the State of Arizona that are not included in Alternative Two. First, Alternative One includes a phased management approach in western Arizona. Under this phased approach, for at least the first 5 years (and up to 12 years) we will limit the initial release and translocation of wolves and their natural dispersal and occupancy in portions of western Arizona (west of Highway 87) in Zones 1 and 2 where potentially vulnerable elk herds occur. Second, Alternative One includes a population objective of 300 to 325 wolves. A population objective of 300 to 325 Mexican wolves is large enough to achieve our goal of improving the probability of

persistence of the experimental population while also minimizing the potential adverse impacts from Mexican wolf predation on wild ungulates and depredation of livestock. Based on best available information, we consider that an experimental population of 300 to 325 Mexican wolves within the MWEPA will be able to contribute toward the future recovery of the Mexican wolf.

Including these two provisions in this action addresses the State of Arizona's concerns regarding possible impacts from Mexican wolves on potentially vulnerable elk herds, especially those west of Highway 87. Such coordination with the State of Arizona will improve the effectiveness of the management of the experimental population of Mexican wolves. To the maximum extent practicable, section 10(j) rules represent an agreement between the Service, the affected State and Federal agencies, and persons holding any interest in land that may be affected by the establishment of an experimental population. Under 50 CFR 17.81(d), the Service must consult with appropriate State game and fish agencies, local governmental entities, affected Federal agencies, and affected private landowners in developing and implementing experimental population rules. We invited 84 Federal and State agencies, local governments, and tribes to participate as cooperating agencies in the development of the EIS. Twenty-eight agencies, local governments and tribes signed Memoranda of Understanding (MOUs) establishing their status as a cooperating agency. These cooperating agencies contributed to the preparation of the EIS that analyzes the proposed revision to the regulations for the Mexican wolf experimental population.

In accordance with CFR 17.81(d), to the maximum extent practicable, the final 10(j) rule which implements the actions proposed in Alternative One will represent an agreement between the Service, the affected State and Federal agencies, and persons holding any interest in land which may be affected by the establishment of this experimental population. To this end Alternative One incorporates elements from a proposed alternative put forward by a coalition of cooperating agencies that included Arizona Game and Fish Department, Eastern Arizona Counties Organization, Gila, Graham, Greenlee, and Navajo Counties and multiple stakeholder groups from the state of Arizona. These elements include establishment of a population objective for the experimental population of Mexican wolves in the MWEPA and adoption of mitigation measures intended to avoid or minimize the potential adverse impacts from Mexican wolf predation on wild ungulates.

The larger area available for the initial release of Mexican wolves under Alternative One will facilitate the recruitment of animals from the captive population and better support the need to improve the genetic variation within the experimental population. The incorporation of provisions put forward by a coalition of cooperating agencies and stakeholder groups intended to minimize and mitigate impacts and provide a balanced, incremental, responsive approach to the implementation of our action will further the conservation of the Mexican wolf by improving the effectiveness of the Reintroduction Project in managing the experimental population. For these reasons we have selected Alternative One over Alternative Two for implementation.

Alternative One Compared to Alternative Three

Alternatives One and Three have the same basic geographic features, but differ in their management provisions. At full implementation of the final 10(j) rule, Alternatives One and Three provide an equivalent amount of additional suitable and unoccupied habitat available for initial releases. At full implementation they would therefore be equivalent in the degree to which they support increased recruitment from the captive population which is expected to contribute to an improvement in the genetic variation within the experimental population and to provide for population growth. However, Alternative Three does not include a phased management approach or a population objective (see discussion under "Alternative One Compared to Alternative Two"), nor does it include proposed management changes that would modify the regulations for take of Mexican wolves. We consider these management changes important to minimize and mitigate impacts and to provide a balanced, incremental, responsive approach to the implementation of our action.

Alternative Three would not include the revised take provisions for Mexican wolves within the MWEPA, including: 1) revising the conditions that determine when we would issue a permit, in conjunction with a removal action authorized by the Service, to allow livestock owners or their agents to take (including intentional harassment or kill) any Mexican wolf that is in the act of biting, wounding or killing livestock (see definition of *livestock* in the List of Definitions) on federal land; 2) allowing domestic animal owners or their agents to take (including kill or injure) any Mexican wolf that is in the act of biting, wounding or killing domestic animals on non-federal land anywhere within the MWEPA; 3) providing that, in conjunction with a removal action authorized by the Service, the Service or designated agency may issue permits to allow domestic animal owners or their agents (e.g., employees, land manager, local officials) to take (including intentional harassment or kill) any Mexican wolf that is present on non-federal land where specified in the permit, and; 4) revising the conditions under which take will be authorized in response to unacceptable impacts of Mexican wolf predation on wild native ungulate herds. Under Alternative Three, an unacceptable impact would be defined as it was in the 1998 Final Rule: *Two consecutive years with a cumulative 35 percent decrease in population or hunter harvest estimates for a particular species of ungulate in a game management unit or distinct herd segment compared to the pre-wolf 5-year average (unit or herd must contain average of greater than 100 animals). If wolf predation is shown to be a primary cause of ungulate population declines (greater than 50 percent of documented adult or young mortality), then wolves may be moved to reduce ungulate mortality rates and assist in herd recovery, but only in conjunction with application of other common, professionally acceptable, wildlife management techniques* (63 FR 1771).

We do not expect the take provisions that are included in Alternatives One and Two to significantly alter the growth of the experimental population as compared with Alternative Three; we project that take of Mexican wolves in the act of biting, wounding or killing domestic animals may slow the population's growth from 11 percent annually (in Alternative Three) to 10 percent (in Alternatives One and Two). We do not expect our permits to domestic animal owners or their agents on non-federal land and livestock owners or their agents on federal land to assist the Service or designated agency with removal of problem Mexican wolves (those that have engaged in nuisance or depredation) to alter the amount of take occurring from current levels; rather, they empower local individuals to assist the Service or designated agency in reducing impacts to their business. Alternative Three would maintain provisions that only allow this provision for livestock; therefore Alternative One provides the most management flexibility to address local concerns.

We recognize that the expanded MWEPA has a more varied matrix of landownerships than Mexican wolves have experienced to date in the Blue Range Wolf Recovery Area. Without the revised take provisions, Alternative Three does not provide the additional flexibility needed to effectively manage a larger experimental population of Mexican wolves within an expanded MWEPA in a manner that furthers the conservation of the Mexican wolf while being responsive to the needs of the local community in cases of depredation or nuisance behavior by wolves. Without these revised take provisions and the establishment of a population objective or phased management we expect greater impacts on small businesses in the livestock production sector and on small businesses involved in hunting and guiding.

The experimental designation enables the Service to develop measures for management of the population that are less restrictive than the mandatory prohibitions that protect species with endangered status. This includes allowing limited take of individual Mexican wolves under narrowly defined circumstances (50 CFR 17.84(k)(6)). Management flexibility is needed to make reintroduction compatible with current and planned human activities, such as livestock grazing and hunting. It is also critical to obtaining needed State, tribal, local, and private landowner cooperation. The Service believes this flexibility has, and will continue to, improve the likelihood of success of our reintroduction effort. For these reasons, Alternative One will further the conservation of the Mexican wolf by improving the effectiveness of the Reintroduction Project in managing the experimental population better than Alternative Three.

We consider it important to minimize and mitigate impacts and provide a balanced, incremental, responsive approach to the implementation of our action. The provisions provided under Alternative One for modifying the take provisions for Mexican wolves will provide clarity and consistency in our take determinations and contribute to our efforts to find the appropriate balance between enabling wolf population growth and minimizing nuisance and depredation impacts on local communities. For these reasons we have selected Alternative One over Alternative Three for implementation.

Alternative One Compared to Alternative Four

Under the no action alternative we would make no changes to the 1998 Final 10(j) Rule governing the management of the experimental population of Mexican wolves. The initial release of Mexican wolves would continue to occur only within a small portion (16 percent) of the BRWRA and wolves would continue to be captured and removed should they disperse to establish territories wholly outside of the BRWRA. Therefore, Alternative Four, compared to Alternative One, would not provide additional suitable, unoccupied habitat within which we could conduct initial releases. We would continue to be constrained in providing the necessary number of effective migrants from the captive population that we consider necessary to improve the genetic variation within the experimental population of Mexican wolves. Alternative Four would also not provide an expanded area available for translocations or for natural dispersal and occupancy by Mexican wolves. A larger area with additional areas of suitable habitat is necessary to allow the growth of the experimental population to ensure its persistence so that it can contribute to recovery in the future. Without changes in the regulations governing initial releases or which designate the area that wolves are allowed to occupy within the MWEPA we would expect the wolf population to grow in accordance with the population projection provided in the Final EIS (Appendix D). Under Alternative Four, the Mexican wolf population would be expected to grow for the next 7 years to a population of 178, at which point Mexican wolves would occupy all suitable habitat within the BRWRA. The BRWRA would then have a higher density of wolves per square mile than would be expected to occur under Alternative One. However, under Alternative Four there would be no revision to the existing take provisions for Mexican wolves. Furthermore, the provision for addressing unacceptable impacts to native ungulate herds would continue to be that which is provided in the 1998 Final Rule.

The No Action Alternative would not meet our purpose and need because we would not be able to achieve the necessary population growth, distribution, and recruitment that would contribute to the persistence of, and improve the genetic variation within, the experimental population, given the projected population size we expect and significant constraints in conducting initial releases. This alternative would not address the potential for Mexican wolves to disperse into the United States from Mexico, resulting in fewer management options to address nuisance or depredation issues in the borderlands where suitable habitat is comparatively scarce. Lastly, this alternative would not allow us to clarify or revise any of our management provisions to improve the efficacy and flexibility of our management. For these reasons, we have selected Alternative One over the No Action Alternative for implementation.

Summary

In summary, we have selected Alternative One for implementation because it best meets the purpose of, and need for, our proposed action by:

- Providing 10,359 mi^2/26,830 km^2 of suitable habitat in Zone 1 for the initial release of Mexican wolves necessary to improve the genetic variation of the Mexican wolf and provide for population growth.
- Expanding the area to approximately 153,871 mi^2/398,524 km^2 (the expanded MWEPA) with 32,244 mi^2/83,512 km^2 of suitable wolf habitat in Zones 1, 2, and 3 within which the Mexican wolf population can disperse and occupy to allow for population growth.

- Providing the management flexibility needed to appropriately respond to depredation or nuisance behavior by a larger and more widely distributed experimental population of Mexican wolves.
- Addressing concerns expressed by the State of Arizona regarding potentially vulnerable elk herds in the western portion of the state through the use of a phased approach to wolf management west of Highway 87.
- Incorporating an experimental population objective of 300 to 325 Mexican wolves in the MWEPA in Arizona and New Mexico, which will improve the probability of persistence of the experimental population so that it can contribute to recovery in the future.
- Minimizing the potential for adverse impacts to local communities.

These outcomes are expected to substantially contribute to our efforts to further the conservation of the Mexican wolf by improving the effectiveness of our Reintroduction Project in managing the experimental population to a greater degree collectively than the other alternatives.

Measures to Minimize and Mitigate for effects to native wild prey species and ranching/livestock production

Based on our analysis, Alternative One will have no significant direct or indirect adverse effects in proposed management Zone 3 and will have no significant direct or indirect adverse effects in proposed management Zones 1 or 2 on biological resources (vegetation, other predators and non-ungulate wild prey species), economic activity (tourism and hunting), land use, and human health/public safety. We predict that implementation of Alternative One could have less than significant direct adverse effects in proposed management Zones 1 and 2 on biological resources (wild ungulate prey species) and economic activity (ranching/livestock production). Although we predict less than significant overall direct adverse economic impacts to ranching/livestock production within Zones 1 and 2, we also recognize that adverse economic impacts to individual small ranch operations could be significant. Because a large percentage of focus minority groups in Arizona and New Mexico are identified as principal operators of beef cattle ranches these adverse economic impacts could be disproportionately distributed. Tribal members are also engaged in livestock production and could also suffer disproportionate economic impacts from implementation of Alternative One. Economic losses to some small individual ranchers/livestock producers from wolf depredation could also be cumulatively more significant when combined with the aggregate effects of human caused global climate change. However, we expect that the financial losses that may be experienced by individual ranchers/livestock producers will be minimized through the mitigation measures available under this alternative. Therefore, while individual ranchers/livestock producers may experience short-term economic impacts no significant long-term effects on overall livestock production in the project area are expected. For these reasons we do not expect implementation of Alternative One will adversely affect the long-term productivity or beneficial uses of the human environment in the MWEPA.

All of the proposed mitigation measures to avoid or minimize environmental harm provided in Alternative One are adopted for implementation:

- Management to maintain an experimental population of from 300 to 325 Mexican wolves within the entire MWEPA. So as not to exceed this population objective, we will exercise all management options with preference for translocation to other Mexican wolf populations to further the conservation of the subspecies. The Service may change this provision as necessary to accommodate a new recovery plan.

- A phased management approach to minimize or avoid possible impacts to wild ungulate populations (specifically elk) in portions of western Arizona during the first 12 years. Our phased management approach includes:

    - Phase 1: Initial release of Mexican wolves will be conducted throughout Zone 1 **with the exception of** the area west of State Highway 87 in Arizona. No translocations will be

conducted west of State Highway 87 in Arizona in Zone 2. Mexican wolves will be allowed to disperse naturally from Zone 1 into, and within the MWEPA (Zones 2 and 3) and occupy the MWEPA (Zones 1, 2 and 3). However, during Phase 1 dispersal and occupancy in Zone 2 west of State Highway 87 will be limited to the area north of State Highway 260 and west to Interstate 17.

- Phase 2: If determined to be necessary by either the 5-Year or 8-Year evaluation: initial release of Mexican wolves will occur throughout the entire Zone 1 **including** the area west of State Highway 87 in Arizona; no translocations will be conducted west of Interstate Highway 17 in Arizona. Mexican wolves will be allowed to disperse naturally from Zone 1 into, and within the MWEPA (Zones 2 and 3) and occupy the MWEPA (Zones 1, 2 and 3) **with the exception** of those areas in Zone 2 west of State Highway 89 in Arizona.
- Phase 3: If determined to be necessary by the 5-Year or 8- Year evaluation: Initial release of Mexican wolves will be conducted throughout the entire Zone 1 **including** the area west of State Highway 87 in Arizona; no translocations will be conducted west of State Highway 89 in Arizona; Mexican wolves will be allowed to disperse naturally from Zone 1 into, and within the MWEPA (Zones 2 and 3) and occupy the MWEPA (Zones 1, 2 and 3).
- Year 12 and beyond: Phased management approach ends: Initial release of Mexican wolves could be conducted throughout entire Zone 1; translocations could be conducted at selected translocation sites on federal land and initial releases and translocations could be conducted on non-federal private and tribal land with voluntary management agreements within Zones 1 and 2 of the MWEPA. Mexican wolves will be allowed to disperse naturally from Zone 1 into, and within the MWEPA (Zones 2 and 3) and occupy the MWEPA (Zones 1, 2 and 3).

- Management actions to be carried out by the Reintroduction Project will include, but not be limited to:
  - Public education and outreach in those areas of the MWEPA which contain suitable wolf habitat and are thus areas with a potential for wolf occupancy.
  - Investigation by authorized agencies of reported wolf incidents no later than 48 hours after a report is received.
  - Aversive conditioning (hazing/harassment, scare devices) of problem wolves to stop or modify undesirable behaviors such as displaying fearless behavior of humans or interacting with domestic animals or pet dogs.
  - Working with livestock producers and other landowners to eliminate attractants and to use guard animals, range riders, fladry, and other techniques to reduce conflicts between Mexican wolves and human activities.
  - Using monitoring as a means of improving non-lethal control measures to aversively condition wolves through hazing and harassment; using non-lethal control, trapping, translocation, or removal of wolves conducted by authorized personnel of the Service, tribes, and/or designated agents of the Service as authorized under a Service permit.
  - Using lethal removal for problem wolves under circumstances where the Service determines that immediate removal of a particular wolf, or wolves, from the wild is necessary, and other options for resolution of the conflict, including live capture, have been exhausted.
  - On tribal trust land within Zones 1 and 2 of the MWEPA, the Service or a designated agency may develop and implement management actions in cooperation with willing tribal governments, including: occupancy by natural dispersal; initial release; and translocation of Mexican wolves onto such lands. No agreement between the Service and a Tribe is necessary

for the capture and removal of Mexican wolves from tribal trust lands if requested by the tribal government.

- On private land within Zones 1 and 2 of the MWEPA, the Service or designated agency may develop and implement management actions to benefit Mexican wolf recovery in cooperation with willing private landowners, including: occupancy by natural dispersal; initial release; and translocation of Mexican wolves onto such lands in Zones 1 or 2 if requested by the landowner and with the concurrence of the State game and fish agency.

- Allowable forms of take of Mexican wolves:
  - *Take in defense of human life.* Under section 11(a)(3) of the Act and § 17.21(c)(2), any person may take (which includes killing as well as nonlethal actions such as harassing or harming) a Mexican wolf in self-defense or defense of the lives of others.
  - *Opportunistic harassment*. Anyone may conduct opportunistic harassment of any Mexican wolf at any time provided that Mexican wolves are not purposefully attracted, tracked, searched out, or chased and then harassed.
  - *Intentional harassment*. After the Service or its designated agency has confirmed Mexican wolf presence on any land within the MWEPA, the Service or its designated agency may issue permits valid for not longer than 1 year, with appropriate stipulations or conditions, to allow intentional harassment of Mexican wolves.
  - On non-Federal lands anywhere within the MWEPA, domestic animal owners or their agents (e.g., employees, land manager, local officials) to take (including intentional harassment or killing) may take (including kill or injure) any Mexican wolf that is in the act of biting, killing, or wounding a domestic animal. *Domestic animal* means livestock and non-feral dogs. *Livestock* means domestic alpacas, bison, burros (donkeys), cattle, goats, horses, llamas, mules, and sheep, or other domestic animals defined as livestock in Service-approved State and tribal Mexican wolf management plans.
  - Based on the Service's or a designated agency's discretion and in conjunction with a removal action authorized by the Service, the Service or designated agency may issue permits to domestic animal owners or their agents (e.g., employees, land manager, local officials) to take (including intentional harassment or killing) any Mexican wolf that is present on non-Federal land where specified in the permit. Permits issued under this provision will specify the number of days for which the permit is valid and the maximum number of Mexican wolves for which take is allowed.
  - Based on the Service's or a designated agency's discretion and in conjunction with a removal action authorized by the Service, the Service may issue permits to livestock owners or their agents (e.g., employees, land manager, local officials) to take (including intentional harassment or killing) any Mexican wolf that is in the act of biting, killing, or wounding livestock on Federal land where specified in the permit.
  - Take of Mexican wolves by livestock guarding dogs, when used to protect livestock is allowed on Federal and non-Federal lands within the MWEPA.
  - An *Unacceptable impact to a wild ungulate herd* shall be determined by a State game and fish agency based upon ungulate management goals, or a 15 percent decline in an ungulate herd as documented by a State game and fish agency, using their preferred methodology, based on the preponderance of evidence from bull to cow ratios, cow to calf ratios, hunter days, and/or elk population estimates.

- *Take in response to unacceptable impacts to a wild ungulate herd.* If Arizona or New Mexico game and fish agency determines, based on ungulate management goals, that Mexican wolf predation is having an unacceptable impact to a wild ungulate herd, the respective State game and fish agency may request approval from the Service that Mexican wolves be removed from the area of the impacted wild ungulate herd. Upon written approval from the Service, the State (Arizona or New Mexico) or any designated agency may be authorized to remove (capture and translocate in the MWEPA, move to captivity, transfer to Mexico, or lethally take) Mexican wolves. These management actions must occur in accordance with the following provisions:

    - Arizona or New Mexico game and fish agency must prepare a science-based document that:

        - Describes what data indicate that the wild ungulate herd is below management objectives, what data indicate that the impact on the wild ungulate herd is influenced by Mexican wolf predation, why Mexican wolf removal is a warranted solution to help restore the wild ungulate herd to State game and fish agency management objectives, the type (level and duration) of Mexican wolf removal management action being proposed, and how wild ungulate herd response to wolf removal will be measured and control actions adjusted for effectiveness;

        - Demonstrates that attempts were and are being made to identify other causes of wild ungulate herd declines and possible remedies or conservation measures in addition to wolf removal;

        - If appropriate, identifies areas of suitable habitat for Mexican wolf translocation; and

        - Has been subjected to peer review and public comment prior to its submittal to the Service for written concurrence. In order to comply with this requirement, the State game and fish agency must:

            - Conduct the peer review process in conformance with the Office of Management and Budget's most recent Final Information and Quality Bulletin for Peer Review and include in their proposal an explanation of how the bulletin's standards were considered and satisfied; and

            - Obtain at least three independent peer reviews from individuals with relevant expertise other than staff employed by the State (Arizona or New Mexico) requesting approval from the Service that Mexican wolves be removed from the area of the impacted wild ungulate herd.

    - Before the Service will allow Mexican wolf removal in response to impacts to wild ungulates, the Service will evaluate the information provided by the requesting State (Arizona or New Mexico) and provide a written determination to the requesting State game and fish agency on whether such actions are scientifically based and warranted.

- If all of the provisions above are met, the Service will, to the maximum extent allowable under the Act, make a determination providing for Mexican wolf removal. If the request is approved, the Service will include in the written determination which management action (capture and translocate in MWEPA, move to captivity, transfer to Mexico, lethally take, or no action) is most appropriate for the conservation of the Mexican wolf subspecies.
- Because tribes are able to request the capture and removal of Mexican wolves from tribal trust lands at any time, take in response to impacts to wild ungulate herds is not applicable on tribal trust lands.

- *Take by Service personnel or a designated agency*. The Service or a designated agency may take any Mexican wolf in the experimental population in a manner consistent with a Service-approved management plan, special management measure, biological opinion pursuant to section 7(a)(2) of the Act, conference opinion pursuant to section 7(a)(4) of the Act, section 6 of the Act as authorized pursuant to § 17.31 for State game and fish agencies with authority to manage Mexican wolves, or a valid permit issued by the Service under § 17.32.
- The Service or designated agency may carry out intentional or opportunistic harassment, nonlethal control measures, translocation, placement in captivity, or lethal control of problem wolves. To determine the presence of problem wolves, the Service will consider all of the following:
    - Evidence of wounded domestic animal(s) or remains of domestic animal(s) that show that the injury or death was caused by Mexican wolves, or evidence that Mexican wolves were in the act of biting, killing, or wounding a domestic animal:
    - The likelihood that additional Mexican wolf-caused depredations or attacks of domestic animals may occur if no harassment, nonlethal control, translocation, placement in captivity, or lethal control is taken; and
    - Evidence of attractants or intentional feeding (baiting) of Mexican wolves.
    - Evidence that Mexican wolves are habituated to humans, human residences, or other facilities regularly occupied by humans, or evidence that Mexican wolves have exhibited unprovoked and aggressive behavior towards humans.

Monitoring and Enforcement Program

The Service will measure the success or failure of releases, translocations, and other management actions by monitoring, researching, and evaluating the status of the Mexican wolf experimental population. Using adaptive management principles, the Service will continue to modify subsequent management actions depending on what is learned. We will prepare periodic progress reports, annual reports, and publications, as appropriate, to evaluate release strategies and other management actions.

Annual Progress Reports

The Service, in coordination with the other agencies that are partners in the reintroduction of the Mexican wolf (Arizona Game and Fish Department, USDA-APHIS Wildlife Services, U.S. Forest Service and the White Mountain Apache Tribe), prepares an annual progress report which details all aspects of the

Mexican Wolf Recovery Program, including the Reintroduction Project. The review of the Reintroduction project addresses: the status of the experimental population (population estimate, mortality, reproduction, home range and movements); management actions (releases and translocations, removals, and investigations); proactive management activities to assist in reducing wolf-livestock conflict; wolf predation; wolf depredation; and public outreach.

Phasing: 5 and 8-year Evaluations

Implementation of the phased approach of Alternative One requires that two evaluations be conducted: (1) covering the first 5 years and (2) covering the first 8 years after the effective date of the final 10(j) rule in order to determine if we will move forward with the next phase. Each phase evaluation will consider adverse human interactions with Mexican wolves, impacts to wild ungulates, and whether or not the Mexican wolf population in the MWEPA is achieving a population number consistent with a 10 percent annual growth rate based on end-of-year counts, such that 5 years after the effective date of the final 10(j) rule the population is at least 150 Mexican wolves, and 8 years after the effective date of the final 10(j) rule the population is at least 200 Mexican wolves. The phasing may be expedited with the concurrence of participating State game and fish agencies. Regardless of the outcome of the two evaluations, by the beginning of year 12 from the effective date of the final 10(j) rule, we will move to full implementation of the final 10(j) rule throughout the MWEPA, and the phased management approach will no longer apply. We will incorporate the information from these evaluations into our annual report, which will serve as the documentation for these 5- and 8-year evaluations on the phasing of the reintroduction project.

5-year Assessment of the Effectiveness of the Final Experimental Population Rule

We will conduct a one-time full evaluation of the final 10(j) rule 5 years after it becomes effective; the evaluation will focus on modifications needed to improve the efficacy of reestablishing Mexican wolves in the wild and the contribution the experimental population is making toward the recovery of the Mexican wolf. A one-time program review conducted 5 years after our final determination will provide an appropriate interval to assess the effectiveness of the project. This one-time program review is separate from the status review of the listed species that we will conduct once every 5 years as required by section 4(c)(2) of the Act.

Section 10(a)1(A) Permit

In conjunction with the final 10j Rule, the Service will issue a revised Section 10(a)(1)(A) research and recovery permit for management activities for Mexican wolves within Arizona and New Mexico, Texas, Colorado, Utah, Nevada, and California, including Mexican wolves within and outside of the MWEPA (50 CFR 17.84(k)). This permit also covers management activities for northern gray wolves in Arizona and New Mexico. It is intended to supplement any authorities that the States may have for management of threatened and endangered species that are granted through implementing regulations for section 6 of the Endangered Species Act (50 CFR parts 17.21 and 17.31), existing Section 6 Cooperative Agreements and associated work plans, the Mexican wolf nonessential experimental population (50 CFR 17.84(k)), and State Research and Recovery permits.

Permit Requirements on National Park Service Land

Outside of the MWEPA Mexican wolves are protected as endangered species under the ESA. Section 10(a)(1)(A) provisions for research and recovery would not automatically apply on National Park Service (NPS) lands because the NPS has unique management discretion and authority for wildlife within its park units.

Management of Mexican wolves which occupy NPS lands outside of the MWEPA would be subject to NPS research permitting authorities and policies while those animals are within NPS unit boundaries. The NPS will make a determination on a case-by-case basis on whether or not they would issue a NPS permit.

Within the MWEPA, under Section 10(j) of the ESA, Mexican wolves are considered proposed species for purposes of section 7 of the ESA, except on NPS lands and National Wildlife Refuge lands, where they are treated as threatened species. Management of Mexican wolves on NPS lands within the MWEPA will also be subject to NPS research permitting authorities and policies, including the application of Section 10(a)(1)(A) provisions. NPS will retain discretion in the issuance of such a permit.

Public Comments on Final EIS

The availability of the Final EIS and draft ROD was announced by the Service in the Federal Register on November 25, 2014 (79 FR 701545). The documents were made available for public review and comment on: *http://www.regulations.gov* in Docket No. FWS–R2–ES–2013–0056; on the Mexican Wolf Recovery Program's website at *http://www.fws.gov/southwest/es/mexicanwolf/*; at the Supervisor Offices for the National Forests throughout Arizona and New Mexico; and by appointment at New Mexico Ecological Services Field Office, 2105 Osuna Road, NE., Albuquerque, New Mexico. The 30-day review period began with the publication of the EPA *Federal Register* Notice of Availability of the Final EIS on November 28, 2014 (79 FR 70865). The Service also announced the availability of the Final EIS and draft ROD on our website and by press releases. As with the draft EIS, notification of the availability of the Final EIS and draft ROD was sent directly to an emailing list of over 800 stakeholders, elected officials, and appropriate Federal, local and state agencies. This included distribution of compact discs of the Final EIS to cooperating agencies and tribes in Arizona and New Mexico and in response to requests by interested parties.

Over 1,300 comments were received during the 30-day review period for the Final EIS and draft ROD. Most were non-substantive in nature, expressing either support for, or opposition to, the proposed action, the draft decision, or more generally the Mexican wolf reintroduction and/or recovery program. Many comments also brought up issues, reiterated points, suggested alternatives to the proposed action, and/or recommended revisions to the analysis of environmental consequences that were already raised during scoping and/or during the public review of the draft EIS. We addressed these comments in our preparation of the Final EIS and provided a response to them in Appendix E in the Final EIS. The remaining substantive comments have been considered in our decision-making process. We provide a summary of these comments and our response to them here:

Comment: Multiple commenters questioned the adoption in Alternative One of a population objective of 300-325 wolves for the experimental population.

- The commenter did not understand why the Mexican wolf population objective is so much higher than for the Northern Rockies.
- With 90 percent of historical Mexican wolf habitat being located in Mexico and a population objective of 300-325 in the US, it appears the Service has an unspoken goal of 3,000 wolves between the US and Mexico.
- What happens to wolf 326? The Service does not provide a scientific justification for how the population objective was determined.
- The Service proposes to set the MWEPA population cap without a scientifically or legally sufficient recovery goal. This contradicts ESA § 4(f). Because the Service has not established recovery criteria for the species, it cannot know how many Mexican wolves it will need in the MWEPA to support recovery.

Response: We adopted a population objective for the Mexican wolf experimental population in the MWEPA in Arizona and New Mexico that based on current published research we believe is large enough to achieve our goal of improving the probability of persistence of the experimental population while also addressing concerns regarding the potential adverse impacts from Mexican wolf predation on wild ungulates and depredation of livestock. As stated in Section 1.2.1 of the Final EIS we intend for the experimental population to contribute to the recovery of the Mexican wolf. However, full recovery is beyond the scope of the EIS and the population objective for the experimental population cannot, and

should not, be used to extrapolate a hypothetical number for the metapopulation of Mexican wolves needed for recovery. In accordance with the projections of Appendix D in the Final EIS we predict that the population objective of 300-325 wolves will be achieved 13 years after implementation of the proposed action. Based on end-of-year counts, we will manage for a population objective of 300 to 325 Mexican wolves in the MWEPA in Arizona and New Mexico. So as not to exceed this population objective, we will exercise all management options with preference for translocation to other Mexican wolf populations to further the conservation of the subspecies. The Service may change this provision as necessary to accommodate a new recovery plan.

Comment: The phased management approach will slow progress toward recovery.
Response: We do not expect that the phased management approach we have incorporated into Alternative One will slow progress toward recovery. The actions proposed in Alternative One are intended to further the conservation of the Mexican wolf by improving the effectiveness of the Reintroduction Project in managing the experimental population. We intend to achieve a Mexican wolf experimental population objective of 300 to 325 wolves within the entire MWEPA in Arizona and New Mexico. Based on the best available information, we consider that an experimental population of 300 to 325 Mexican wolves within the MWEPA will contribute to the future recovery of the Mexican wolf. In accordance with the projections of Appendix D in the Final EIS we predict that the population objective of 300-325 wolves will be achieved 13 years after implementation of the proposed action. We include in Alternative One provisions for phase evaluations to be conducted in the fifth and eighth year after the effective date of the final rule. Each phase evaluation will consider adverse human interactions with Mexican wolves, impacts to wild ungulates, and whether or not the Mexican wolf population in the MWEPA is achieving a population number consistent with a 10 percent annual growth rate based on end-of-year counts, such that 5 years after the effective date of this rule the population is at least 150 Mexican wolves, and 8 years after the effective date of this rule the population is at least 200 Mexican wolves. If we have not achieved this population growth, we will move forward to the next phase. Regardless of the outcome of the two evaluations, at the beginning of year twelve from the effective date of the final 10(j) rule, we will move to full implementation of the rule throughout the MWEPA, and the phased management approach will no longer apply.

Comment: The FEIS and proposed rule do not adequately address climate change.
Response: All of North America is very likely to warm during this century. Localized projections suggest the southwestern United States may experience the greatest temperature increase of any area in the lower 48 states. It is very likely that hot extremes, heat waves, and heavy precipitation will increase in frequency with a high confidence that many semi-arid areas like the western United States will suffer a decrease in water resources due to climate change. The result of predicted climate change trends could include reduced summer base flow in streams, increased runoff and erosion during storm events, and the earlier onset of summer low-flow conditions. Reduced water in the system may reduce or localize big game populations in the summer months; such changes have the potential to adversely affect the wolf within the next 50 to 100 years through reductions or distributional shifts in wild ungulate populations. Although we recognize the need to consider the potential effects of climate change in our recovery planning, the actions proposed in Alternative One are intended to further the conservation of the Mexican wolf by improving the effectiveness of the Reintroduction Project in managing the experimental population. Consideration of the potential effects of climate change to the recovery of the Mexican wolf is beyond the scope of this EIS and not applicable to the decision we have made to select Alternative One for implementation. We will address the issue of climate change and its effects in the southwestern United States further in our assessment of threats to the Mexican wolf as we continue with our recovery program and in our development of a new recovery plan.

Comment: The FEIS and ROD fail to recognize anthropogenic affects to habitat in Mexico, which will prevent the establishment of a population there and therefore impact the ability of the Service to establish a metapopulation.

Response: The actions proposed in Alternative One are intended to further the conservation of the Mexican wolf by improving the effectiveness of the Reintroduction Project in managing the experimental population. Consideration of the quality or availability of suitable habitat in Mexico which can contribute to the establishment of a metapopulation of Mexican wolves is beyond the scope of this EIS and not applicable to the decision we have made to select Alternative One for implementation. We will consider the relative contribution of available suitable habitat in both the United States and Mexico to the recovery of the Mexican wolf as we continue with our recovery program and in our development of a new recovery plan.

Comment: The Service failed to consider the best scientific and commercial information available regarding the genetics of the Mexican wolf (*Canis lupus baileyi*) when they ignored Cronin et al. (2014). The FEIS violates the "best available data" clauses of Section 10(j)(2)(B) and Section 4(b)(1)(A) of the Endangered Species Act (ESA) due to failure to recognize new peer reviewed published information challenging the genetic validity of the "Mexican wolf" as a valid subspecies of *Canis lupus* and providing insight to appropriate recovery ranges for "Canadian" and "Mexican" wolves. If there is any rationale for managing Mexican wolves, the only logical management would be to geographically isolate the "Mexican" wolves in Mexico and create a physical gap between those wolves and northern wolves. The current proposed action increases the chance of hybridizations between "Canadian" and "Mexican" wolves, which will create a nationwide population of gray wolves that cannot by definition be protected by the ESA.

Response: The Notice of Availability for our Final EIS and draft ROD was published in the Federal Register on November 25, 2014 (79 FR 70154). The cited article, *Single Nucleotide Polymorphism (SNP) Variation of Wolves (Canis lupus) in Southeast Alaska and Comparison with Wolves, Dogs, and Coyotes in North America* published by the Journal of Heredity (Cronin et al. 2014) was made available online through advance access on November 26, 2014. The analysis provided in Cronin et al. 2014 challenge the subspecies concept for North American wolves, including the Mexican wolf, based on their interpretation of other authors work (most notably Leonard *et al*. 2005) relative to mtDNA monophyly. The actions proposed in Alternative One are intended to further the conservation of the Mexican wolf by improving the effectiveness of the Reintroduction Project in managing the experimental population. Consideration of taxonomic issues related to North American gray wolf populations is beyond the scope of this EIS and not applicable to the decision we have made to select Alternative One for implementation. Furthermore, Alternative One does not extend the MWEPA north of I-40 and includes the provision for a revised section 10(a)(1)(A) research and recovery permit under which we will remove Mexican wolves from the experimental population that disperse to establish territories outside the MWEPA. Therefore, we do not consider the concern expressed in the comment regarding an increased risk of hybridization of Mexican wolves with "northern" or "Canadian" wolves to be germane to the proposed action. We recognize that wolf taxonomy is complicated and continuously evolving and we are considering the information provided in Cronin et al. 2014 in our assessment of the appropriate listed status for the Mexican wolf.

Comment: The New Mexico Game and Fish Commission recently passed language that states predators may not be released onto private property without first acquiring permits from the department to do so. How would the Service's proposed management agreements with private landowners establish protocols and procedures to minimize or preclude depredation incidents and nuisance behavior? Why aren't those proposals outlined in this EIS?

Response: In Alternative One we have included provisions for management on private land within Zones 1 and 2 of the MWEPA, so that the Service or designated agency may develop and implement management actions to benefit Mexican wolf recovery in cooperation with willing private landowners, and with the concurrence of the State game and fish agency. These actions include occupancy by natural dispersal and the initial release; and translocation of Mexican wolves onto private lands in Zones 1 or 2 if requested by the landowner and with the concurrence of the State game and fish agency. Protocols and

procedures to minimize and avoid depredation and nuisance behavior from wolves will be part of the management agreements with private landowners.

Comment: The Service should outline exactly how one would go about gaining a permit to legally take wolves on public lands if they are depredating on livestock. This needs to be spelled out in the EIS for everyone to see.
Response: Based on the Service's or a designated agency's discretion and in conjunction with a removal action authorized by the Service, the Service may issue permits to livestock owners or their agents (e.g., employees, land manager, local officials) to take (including intentional harassment or killing) any Mexican wolf that is in the act of biting, killing, or wounding livestock on Federal land where specified in the permit. The process for applying for and obtaining a permit will be provided in a revised management plan and Standard Operating Procedures (SOPs) for the Reintroduction Project.

Comment: Several citations of Carroll et al. 2014 and/or Wayne and Hedrick 2010 misstate, misinterpret or provide incorrect context for the results and implications of the studies as related to the relationship between population size and viability or effective migration rate and viability. We recommend the context be highlighted in several key areas to clarify that the results of Carrol et al. 2014 related to extinction risk were provided within a metapopulation distribution of three populations, not a single isolated population, and utilized a lower mortality rate than the experimental population in the BRWRA has had for most of its history. In addition, Carroll et al. 2014 results showed a quasi-extinction of 10 percent probability at population sizes of 300-325, when present in a metapopulation, when effective migration was at or above 0.5 per generation, rather than "regardless of the number of effective migrants" as stated in the EIS. Our simulations suggest that ~2 effective migrants per generation may be enough to maintain the existing level of heterozygosity in the Blue Range population if adult mortality rate is low (~22-23 percent). Finally, releases from the captive population at a rate equivalent to 2 effective migrants per generation would be inadequate to address current genetic threats to the Blue Range population given its current depauperate genetic composition and the high relatedness of the population.
Response: Although we intended for the context of our use of these studies to be apparent in our Final EIS, we agree that it may have been unclear in several instances. We will incorporate clarifying text in the final revised nonessential experimental population rule. Based on Carroll et al. (2014), a population objective of at least 300 Mexican wolves with some number of effective migrants would be appropriate for a single population objective, recognizing that the number of effective migrants per generation greatly affects population persistence at various population sizes. Alternative One adopts a population objective of 300 to 325 Mexican wolves within the MWEPA throughout both Arizona and New Mexico with a minimum of 1 to 2 effective migrants per generation entering the population, depending on its size, over the long term. However, as we discuss in subsection 1.2.2 of the Final EIS we fully recognize the need to address the high degree of relatedness of the experimental population of Mexican wolves currently established in the BRWRA. Under the principal of adaptive management, Alternative One provides us the management flexibility to conduct the number of initial releases in management Zone 1 necessary to achieve more than 1 to 2 effective migrants per generation. Alternative One also provides other tools within management Zones 1 and 2, such as the release of pups less than 5 months old to allow for cross-fostering of pups from the captive population into the wild and the re-release of translocation-eligible adults with pups born in captivity. We expect that these management tools, and the management flexibility to use them, which are available to us under Alternative One will allow us to improve the genetic variation within the experimental population of Mexican wolves.

Comment: Changes to the proposed action appear to be a direct result of closed door meetings with the Arizona Game and Fish Department. The Service has shown favoritism to some stakeholders (AGFD and NMDGF) over other stakeholders. The Service appears to misinterpret 50 C.F.R. 17.81 as requiring the agency defer to the AGFD's and NMDFG's desires by claiming the states have the greatest interest in the lands at issue in the Mexican wolf reintroduction effort. To the contrary, the Service's misreading of its regulations led it to overlook the most significant category of "persons holding any interest in land which

may be affected by the establishment of this experimental population." Wild Mexican wolf reintroduction has taken place and will continue to take place primarily on federal lands, held in trust for all citizens. The American public makes up major constituency of persons holding an interest in these lands.

Response: Section 6(a) of the Act directs that in carrying out the program authorized by the ESA "the Secretary shall cooperate to the maximum extent practicable with the States" and, under section 10(j), that, to the maximum extent practicable, experimental population rules represent an agreement between the Service, the affected State and Federal agencies, and persons holding any interest in land that may be affected by the establishment of an experimental population. Under 50 CFR 17.81(d), the Service must consult with appropriate State game and fish agencies, local governmental entities, affected Federal agencies, and affected private landowners in developing and implementing experimental population rules. Both the Arizona Game and Fish Department (AGFD) and the New Mexico Department of Game and Fish (NMDGF) entered into Memoranda of Understanding (MOUs) to serve as Cooperating Agencies in the development of the EIS. These MOUs recognize that AGFD and NMDGF have legal authority and/or special expertise applicable to the NEPA planning process and the actions considered in the EIS. In accordance with Section 1501.6 of NEPA regulations, we, as the lead agency, met with both these agencies multiple times at their request [40 C.F.R. §1501.6 (a)(3] and as part of Interdisciplinary Project Team (IPT) meetings with other cooperating and stakeholder agencies. Chapter 6 of the Final EIS, Public Involvement, Agencies and Persons Consulted, describes in detail the process we have engaged in to involve affected Federal agencies, states, government officials, non-governmental organizations, and the public in the NEPA planning, decision making, and implementation process. We consider that we have conducted outreach sufficient to provide meaningful opportunity for public involvement by all persons holding any interest in land, both Federal and non-Federal, which may be affected by the establishment of this experimental population.

Comment: The allowance for state game management agencies to petition for take of Mexican wolves based on purported impacts to wolves' natural ungulate prey species is unwarranted. The Service sets the trigger for this provision at a fifteen percent decline in herds as documented by state game managers' preferred methodology or when herds are not meeting state management goals. Science and experience both clearly show prey species populations fluctuate for a variety of reasons that generally have nothing to do with predation pressure. For the Service to permit take of an endangered species for the sake of limited recreational opportunities of a non-native ungulate that is the preferred prey of the Mexican wolf is not justified by science or reason.

Response: The experimental designation enables the Service to develop measures for management of the population that are less restrictive than the mandatory prohibitions that protect species with endangered status. This includes allowing limited take of individual Mexican wolves under narrowly defined circumstances [50 CFR 17.84(k)(6)]. With the experimental population designation, the relevant population is treated as threatened for purposes of section 9 of the Act, regardless of the species' designation elsewhere in its range. Treating the experimental population as threatened allows us the discretion to devise management programs and special regulations for such a population. Section 4(d) of the Act allows us to adopt any regulations that are necessary and advisable to provide for the conservation of a threatened species. When designating an experimental population, the general regulations that extend most section 9 prohibitions to threatened species do not apply to that species, and the section 10(j) rule contains the prohibitions and exemptions necessary and advisable to conserve that species. If Arizona or New Mexico game and fish agency determines, based on ungulate management goals, that Mexican wolf predation is having an unacceptable impact to a wild ungulate herd, the respective State game and fish agency may request approval from the Service that Mexican wolves be removed from the area of the impacted wild ungulate herd. Before the Service will allow Mexican wolf removal in response to impacts to wild ungulates, the Service will evaluate the information provided by the requesting State (Arizona or New Mexico) and provide a written determination to the requesting State game and fish agency on whether such actions are scientifically based and warranted. That determination will be based on the

review of a science-based document prepared by the Arizona or New Mexico game and fish agency that: describes what data indicate that the wild ungulate herd is below management objectives; what data indicate that the impact on the wild ungulate herd is influenced by Mexican wolf predation; why Mexican wolf removal is a warranted solution to help restore the wild ungulate herd to State game and fish agency management objectives; the type (level and duration) of Mexican wolf removal management action being proposed and how wild ungulate herd response to wolf removal will be measured and control actions adjusted for effectiveness; and that demonstrates that attempts were and are being made to identify other causes of wild ungulate herd declines and possible remedies or conservation measures in addition to wolf removal; and if appropriate, identifies areas of suitable habitat for Mexican wolf translocation; and has been subjected to peer review and public comment prior to its submittal to the Service for written concurrence.

Comment: Cumulative effects should have considered ESA listings, the Environmental Protection Agency's (EPA) Water of the US rule, US Forest Service rules for ground water, and EPA Clean Air Act rules. The cumulative cost of the presence/absence surveys, habitat assessments, permit paperwork, meetings, Section 7 consultation, and the wide variety of other field and office work for all threatened, endangered, candidate and proposed species and their critical habitat costs all must be included as cumulative impacts in the EIS.

Response: NEPA requires only a discussion of those cumulative impacts with the potential for significance and only for those resources that are affected by the proposed action and alternatives. We determined that the proposed action and alternatives would have no effects on air quality or water resources. Therefore, no further analysis of impacts, including cumulative impacts to these resource areas was made in the draft or Final EIS. In determining what information is necessary for a cumulative effects analysis, agencies use scoping to focus on the extent to which information is "relevant to reasonably foreseeable significant adverse impacts" (CEQ 2005, 40 C.F.R. § 1502.22). In accordance with CEQ (2005) guidance: "It is not practical to analyze how the cumulative effects of an action interact with the universe; the analysis of effects must focus on the aggregate effects of past, present, and reasonably foreseeable future actions that are truly meaningful." In section 4.7 of the Final EIS we address the cumulative impact of our proposed action on ranching/livestock production across the project study area (which includes both federal and non-federal land) when added to the aggregate effects of human-caused global climate change. While we recognize that wolves may inhabit suitable habitat on non-federal land, the majority of suitable habitat in the project study area occurs on federal land, with the majority on Forest Service land. This is where cumulative effects are most likely to occur. Land management agencies provide for multiple-use activities on their lands, including the conservation of federally listed species. Protection of wildlife habitat may, in some instances, require reduction of permitted livestock or exclusion of livestock from sensitive areas. Therefore, the cumulative effects analysis of the FEIS also addresses the cumulative impact of our proposed action on ranching/livestock production when added to the aggregate effects of the management of Federal livestock permits for grazing by the Forest Service and Bureau of Land Management.

Comment: The Service violated NEPA, the APA and the ESA by agreeing to unrealistically short and therefore inappropriate deadlines which, given the high volume of public controversy, would not provide sufficient time to coordinate with local governments, review comments and determine which of those comments were substantive, and consider inconsistencies with plans and polices of local government. The Service knowingly and voluntarily agreed to a court settlement that it fully understood would ultimately produce an arbitrary and capricious EIS and decision.

Response: Throughout the development of this EIS we have been cognizant of the time limits placed upon us by the stipulated settlement agreement reached in *Center for Biological Diversity v. Jewell*, Case No. 12-cv-1920 (August 2013). In accordance with Section 1501.7 of the NEPA regulations, the lead agency shall, "indicate the relationship between the timing of the preparation of environmental analysis and the agency's tentative planning and decision making schedule" and may, as part of the scoping process, set time limits [40 C.F.R. §1501.7 (a)(7) and (b)(2)]. We have consistently and clearly

communicated to our cooperating agencies, the Interdisciplinary Project Team (IPT), the tribal working group, and the stakeholder agencies, organizations, and individuals our schedule for the completion of milestones in the NEPA process so that we could publish a revised rule for the experimental population of Mexican wolves by January 12, 2015. Many of the issues evaluated in the EIS have been under consideration since we began the reintroduction of Mexican wolves in the United States in 1998 and were the subject of recommendations in our three and five-year program reviews and our 2010 Mexican Wolf Conservation Assessment. We conducted scoping on these issues in 2008 and again after notification of our intent to prepare an EIS in August 2013. In the development of the Final EIS we incorporated input received from the public, cooperating agencies, tribes, stakeholder groups and individuals, federal and state agencies, and local governments during scoping and during the public comment periods, including public hearings, on the proposed experimental population rule and draft EIS. We have been clear in the consideration of issues that were within the scope of the EIS and those which we considered to be beyond the scope. We specifically excluded those issues we felt were related to recovery and the development of a recovery plan and for which we did not have time to expand the scope of the EIS so that we could adequately consider them in the NEPA analysis. In accordance with Section 1501.8 of the NEPA regulations "federal agencies are encouraged to set time limits appropriate to individual actions…provided, that the limits are consistent with the purposes of NEPA…" The agency may also consider "other time limits imposed on the agency by law, regulation, or executive order" and may "set overall time limits or limits for each constituent part of the NEPA process,…"[40 C.F.R. § 1501.8 (b)(1)(viii) and (b)(2)]. We consider that we have conducted outreach sufficient to provide meaningful opportunity for public involvement. The time provided to review and comment on draft and final documents has met or exceeded the statutory requirement established in NEPA regulations and we consider the time available for the Service to consider those comments, has been adequate.

Comment: Multiple commenters questioned the modifications made to Alternative One in the Final EIS. These commenters asserted that because of these modifications a supplemental EIS is required before a decision can be made:

- The Service includes new and unanalyzed provisions in the draft ROD and FEIS that cede additional concessions to AZGFD, NMDGF, and their collaborating state and special interest stakeholders without the benefit of full science-based analysis or public review and comment.
- The Service made substantive changes to the proposed action and preferred alternative between the draft and final EISs. 40 C.F.R. 1502.9(c) requires the effects of substantive changes be addressed by supplemental NEPA analysis. Because the Service's substantive changes have not been analyzed or quantified, the Service cannot establish without a supplemental EIS that the changes meet the purpose and need of the proposed action. Such supplemental analysis should be subject to full public review and comment, which should then be fully considered and incorporated by the Service before the final ROD and revised 10(j) rule is issued.
- The Parties again demand the Service to complete a supplemental EIS that examines and quantifies the wolf program in light of the substantive changes to the proposed action.
- The Services' new preferred alternative, disclosed for the first time in the EIS, differs substantially from the alternatives previously disclosed and analyzed. The new preferred alternative makes substantial changes to the proposed action that are relevant to environmental concerns. These changes and the alternative generally have not been properly analyzed or discussed in previous version of the EIS. Therefore, a supplement to the EIS must be prepared for public review and comment before a final decision is made. *See* 40 C.F.R. §1502.9(c)(1).
- The Service's new changes in the FEIS and draft ROD are not logical outgrowths of the previous drafts and made without meaningful public review and comment.

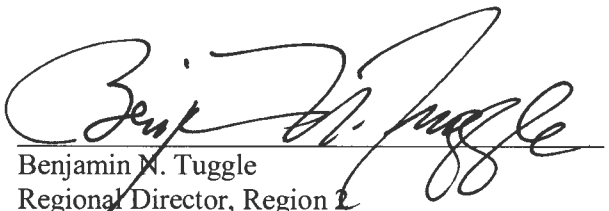
Response: Section 1503.4 of the NEPA regulations provides guidance to an agency in its response to comments when preparing a final EIS. Possible responses include to: "modify alternatives including the

proposed action", and; "develop and evaluate alternatives not previously given serious consideration by the agency" [40 C.F.R. §1503.4(a)(1) and (2)]. Section 1502.9 of the NEPA regulations directs agencies to prepare supplements to either a draft or final EIS if "the agency makes substantial changes in the proposed action..." [40 C.F.R. §1502.9(c)(1)]. As noted in our response to substantive comments received on the draft EIS (Appendix E of the Final EIS) we made "substantive" changes to Alternative One (Proposed Action and Preferred Alternative) by incorporating suggested elements such as establishing a population objective of 300-325 Mexican wolves, adopting a phased management approach, and adding a definition of unacceptable impacts to wild ungulate herds. The modifications that we made were substantive in nature in that they made actual (as opposed to superficial) changes in response to stakeholder input. However, these modifications were not "substantial" such that by making them the alternative no longer met the purpose and need as written in the draft EIS. In fact, the purpose and need statement and the criteria we used for the selection of alternatives for analysis remained unchanged from the draft EIS to the Final EIS. Therefore, we do not consider a supplement to the Final EIS to be necessary.

For More Information

You may obtain a copy of the Final EIS and final ROD by going to the Mexican Wolf Recovery Program website at *http://www.fws.gov/southwest/es/mexicanwolf/*. You may obtain a compact disk with an electronic copy of the Final EIS by writing to Ms. Sherry Barrett, Mexican Wolf Recovery Coordinator, New Mexico Ecological Services Field Office, 2105 Osuna Road, NE, Albuquerque, NM 87113. The Final EIS and final ROD will also be available for public inspection, by appointment, during normal business hours (8 a.m. to 4:30 p.m.) at the New Mexico Ecological Services Field Office, 2105 Osuna Road, NE, Albuquerque, NM 87113. In cooperation with the U.S. Department of Agriculture, Forest Service, Southwest Region, we have also established information repositories at the Supervisor Offices for the National Forests throughout Arizona and New Mexico. Links to the National Forests with the addresses of the supervisor offices are available at *http://www.fs.usda.gov/r3*.

Approved:



Benjamin N. Tuggle
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U.S. Fish and Wildlife Service

1/06/2015
Date